



# Ex-post Performance Implications of Divergence of Managers' Perceptions of 'Distance' From 'Reality' in International Business

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## Abstract

Despite much research on 'distance', little attention has been paid to the effect of divergence of managers' perceptions of distance from reality (i.e. distance divergence) and its implications for firm performance. This knowledge is highly important since managerial perceptions of the firm's environment do not always coincide with the actual environmental characteristics. Consequently, strategies based on inaccurate data may result in erroneous forecasts, missed opportunities and business failure. Using survey data from senior managers of Swedish exporters and corresponding objective data, this study is one of the first attempts to explore the ex-post performance implications of 'distance divergence' when expanding into foreign markets. Our results demonstrate that the larger the divergence between managers' perceptions of cultural distance and corresponding 'objective' distance, the lower the performance expressed in companies' sales. However, over/underestimation of cultural distance does not have differential effects on firm performance.

**Keywords** Cultural distance · Distance divergence · Managerial perception · Firm performance · Internationalization

## 1 Introduction

'Distance' (i.e. country differences) is the essence of international business (IB) (cf. Williams and Grégoire 2015; Zaheer et al. 2012). Firms engage in IB to find and exploit business opportunities outside the domestic market (Johanson and Vahlne 2009; Lu and Beamish 2001). However, exploiting these opportunities

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entails costs and risks of doing business in a new foreign market, mainly resulting from barriers created by ‘distance’ (Ghemawat 2001). Distance may originate not only from geographic separations but also from administrative or political, economic, and cultural differences (Hutzschenreuter et al. 2016). These differences create uncertainty, since the decision-maker sees itself as lacking sufficient market information to accurately predict the challenges facing the firm in the new foreign market environment (Maitland and Sammartino 2015b). The concept of distance typically refers to degrees of dissimilarity between country pairs and is mostly conceptualized using Kogut and Singh’s (1988) index (Ambos and Håkanson 2014). Despite its popularity, this approach has been questioned by extant research, meaning that the original underlying assumptions and rationale behind the concept have been largely overlooked (Baack et al. 2015; Shenkar 2001). Therefore, scholars pointed out the need for other (richer) conceptualizations of distance (Ambos and Håkanson 2014; Leung et al. 2005).

Recent research calls for the use of perceptual data in assessing distance, mainly grounded on the argument that managers formulate strategies for responding to the environmental demands based on their *perceptions* of the firm’s (external) environment (Baack et al. 2015; Child 1972; Child et al. 2002; Hambrick and Mason 1984; Harzing 2004; Maitland and Sammartino 2015a). As Devinney et al. (2003, p. 155) assert, “managers need to make choices [...] and this will be influenced by their perceptions of the nature of the pressures and what is the most advantageous for the firm”. However, as Harzing (2004, p. 103) argues, most studies in IB research have succeeded in completely removing the managers who make the actual decisions from the equation. In response to this criticism, there have been efforts to incorporate perceptual measures of distance to explain a variety of firms’ internationalization decisions, such as foreign market selection (Håkanson and Dow 2012), entry mode choice (Drogendijk and Slangen 2006; Williams and Grégoire 2015), international marketing strategy (Azar and Drogendijk 2014; Evans et al. 2008), and cross-border M&As (Yildiz and Fey 2016). Despite these efforts, little attention has been paid to the effect of divergence of managers’ perceptions of distance from reality and the implications thereof for firm performance. Although the initial assumption is that managers accurately perceive their firm environments, previous research has reported errors and biases in managerial perception (Mezias and Starbuck 2003). Research in the field of behavioral decision-making states that individual judgment and decision-making are subject to error and bias (Das and Teng 1999; Kahneman et al. 1982; Winter 2003) in which cognitive traits are among the most important explanatory factors (Hambrick and Mason 1984; White et al. 2003). Another stream of research argues that organizational factors such as information processing capabilities and firm structure can also create bias in managerial perceptions of the firm environment (Ocasio 1997; Sutcliffe 1994).

Maitland and Sammartino (2015b) maintain that our knowledge about managers’ role in assessing foreign environments is very limited and warrants further research. Ambos and Håkanson (2014) point out that one of the unexplored questions in IB research is related to the link between perceptual and ‘objective’ measures of country differences and its influence on ex-post firm performance. Accordingly, building

on the logics developed by the Uppsala Model of firms' internationalization process (Johanson and Vahlne 1977), the upper echelon theory (Hambrick and Mason 1984) and cognitive research (Kahneman et al. 1982; Mezias and Starbuck 2003; Skinner 1995), we introduce a novel conceptualization of 'distance', i.e. 'distance divergence'. It refers to the degree to which managers' perceptions of distance diverge from 'objective reality', acting on the premise that business success relies on the accuracy of information acquired by managers and on their correct interpretation of this information, i.e. accurate managerial perceptions (Cook and Hunsaker 2001; Gavetti 2012; Gavetti et al. 2012; Mukherji et al. 2013; Obadia 2013; Pillai 2010; Starbuck and Milliken 1988; Sullivan 1994). Using survey data from senior managers of Swedish exporters and corresponding objective data, this study is one of the first attempts to empirically explore the ex-post performance implications of 'distance divergence' when expanding into foreign markets.<sup>1</sup> According to Brouthers (2013), a true understanding of the effect of distance on firm performance requires incorporating both perceived and actual (objective) measures of distance. Our results demonstrate that the larger the divergence of managers' perceptions of cultural differences from 'objective' differences, the lower the performance expressed in companies' sales. Thus, in contrast to previous studies (cf. Kogut and Singh 1988; Nordström and Vahlne 1994; Prime et al. 2009), our findings suggest that it is not perhaps 'distance' per se, or exclusively, which determines the firm's performance: the determinant is the degree of accuracy in managers' perceptions of distance.

This study contributes to IB literature by introducing a richer conceptualization of 'distance' and empirically showing the effect of divergence of managers' perceptions of distance from actual environmental characteristics and its implications for firm performance. This knowledge is highly important, since managerial perceptions of the firm's environment do not always coincide with the actual environmental characteristics (Mezias and Starbuck 2003; Starbuck and Mezias 1996; Taras et al. 2009; Yildiz and Fey 2016). They are, for example, influenced by managers' personal characteristics, experience and the context in which the environment is perceived (Starbuck and Milliken 1988). Therefore, formulating strategies based on inaccurate data, namely perception-based-judgments of country differences, may result in erroneous forecasts, missed opportunities, and ultimately increased costs (Orr and Scott 2008; Sousa and Bradley 2006) or business failure (O'Grady and Lane 1996).

In the remainder of this paper, we first review the extant literature on 'distance', its issues and controversies in IB. We then describe our empirical method and test a path model with the Structural Equation Modeling program LISREL. After the analysis of the results, the final section concludes the paper by discussing contributions and implications.

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<sup>1</sup> In a previous study (Azar and Drogendijk 2017) we used the label "cultural distance deviation" to study the idea of divergence of cultural distance assessments by managers. Our earlier study is based on the same data collection and mostly similar methods, but the work published here is extended in theoretical grounding and studies the additional question of over- and underestimation of distance, not addressed previously.

## 2 'Distance' in International Business

As pointed out by Zaheer et al. (2012, p. 19), “international management is management of distance”. The importance of ‘distance’ in IB is mainly related to the challenges associated with costs of transportation, communication, coordination, integration and monitoring (Hutzschenreuter et al. 2016). Distance in its basic form originates from physical or geographic separation between countries, which entails increased transportation and communication costs in cross-border business (Ghemawat 2001). Distance can also originate from differences in language, education, business practices, industrial development, culture, economic and political factors among countries (Dow and Karunaratna 2006; Evans and Mavondo 2002; Ghemawat 2001; Johanson and Vahlne 1977; Kostova 1999; Xu and Shenkar 2002). There are myriad typologies for distance in the IB literature (cf. Berry et al. 2010). In this study, we adopt the categories proposed by Evans and Mavondo (2002): i.e. cultural and business distance.<sup>2</sup>

Cultural distance is one of the most popular and widely studied concepts in IB research (Caprar et al. 2015; Zaheer et al. 2012). Cultural distance refers to the difference between countries in terms of norms, ideas, values and beliefs (Shenkar 2001). These differences presumably represent a barrier to the international transfer of information, influencing the collection and interpretation costs of critical management information, which increase the liability of foreignness and uncertainty in the new foreign market (Carlson 1974; Håkanson and Dow 2012; Harzing 2004; Ojala 2015; Zaheer 1995). Cultural distance has therefore been used to explain a variety of strategic decisions made in a firm’s internationalization process, including, among others, foreign market selection, entry mode choice and international marketing strategy (for a comprehensive review, see for example, Beugelsdijk et al. 2018; Hutzschenreuter et al. 2016; López-Duarte et al. 2016).

Business distance refers to differences between countries in terms of (among others) political environment, economic environment and business practices (Evans and Mavondo 2002; Evans et al. 2008). The political environment can have crucial implications for firm internationalization (Holmes et al. 2013). For example, political instability may lead to frequent and arbitrary changes in economic policy, which in turn can increase uncertainty and discourage entry by foreign firms or lead to companies’ withdrawal from the foreign market (García-Canal and Guillén 2008; Henisz 2000). Likewise, the economic environment can affect the attractiveness of foreign markets through its effects on innovation, competition, and general institutional quality, and also impact the mode of entry to the foreign market (Campa and Guillén 1999). Finally, differences in business and management practices (e.g. terms of conditions of employment) in foreign markets can increase the risk of entry into a foreign market (Evans and Mavondo 2002). Evans and Bridson (2005) found that the perception of business differences in foreign markets had a significant influence

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<sup>2</sup> This typology is in line with the notion of informal and formal institutions in which culture is an important reflection of a country’s informal institutions and legal, political and economic environments reflect a country’s formal institutions (Holmes et al. 2013).

on adaptation of marketing strategies, owing to perceived uncertainty in markets with different business practices.

## 2.1 Managerial Perceptions of Distance

Mullins (1999, p. 377) states that “perception is the root of all organizational behavior”. Perception can be described as a critical process that helps people to define their worlds and guides their behavior (Cook and Hunsaker 2001). According to Robbins (1996, p. 39), “perception is a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment”. The stages of the perception process can be described as an information processing system in which information (i.e. stimuli) is first received from the environment, and then selected and screened (i.e. filtered), organized/arranged and interpreted, finally resulting in action or thought patterns (Cook and Hunsaker 2001; Hambrick and Mason 1984; Maitland and Sammartino 2015b; Mullins 1999). Factors such as the perceiver’s personal characteristics (e.g. attitudes, motives, interests, expectations, training and past experience), characteristics of the target perceived (e.g. appearance and background) and the context in which the perceiver receives the stimuli (e.g. time and location) may affect an individual’s perceptions.

Despite the dominance of ‘objective’ country-level measures of distance in IB research (Zhao et al. 2004), scholars have repeatedly called for the incorporation of perceptual individual-level measures into those studies (Ambos and Håkanson 2014; Sousa and Bradley 2006; Zaheer et al. 2012). The main argument is that strategic decisions and organizational behavior rely on managerial perceptions of the firm’s environment (Beyer et al. 1997; Brouthers 2013; Buckley et al. 2007; Child 1972; Child et al. 2002; Hambrick and Mason 1984). Therefore, using secondary measures to proxy for ‘distance’ can result in oversimplification (Brouthers 2013). As pointed out by Maitland and Sammartino (2015b, p. 755), “incorporating boundedly rational decision makers’ ability to identify and select the best option into explanations for differences in internationalization choice, design and performance is a critical theoretical and methodological step for IB”.

## 2.2 Distance Divergence

The initial assumption in many organizational theories and practices is that managers accurately perceive their organizations’ environments (Mezias and Starbuck 2003). However, previous research has reported errors and biases in managers’ perceptions of their firms’ internal and external environment<sup>3</sup> (Kahneman and Tversky 1973; Kiesler and Sproull 1982; Lant et al. 1992; Meier and O’Toole 2013; Starbuck and Mezias 1996). By empirically studying senior managers, Mezias and Starbuck

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<sup>3</sup> A firm’s environment can be divided into its internal and external environment: the former refers to factors within the firm’s boundaries—i.e. organizational properties such as managerial skills and technological characteristics—whereas the latter refers to factors outside the firm’s boundaries, such as laws, regulations and national culture.

(2003) found a prevalence of very large divergence of managers' perceptions of organizational and environmental properties from the corresponding objective data. This is critical, since an organization performs best when managerial perceptions of environmental characteristics match reality (Bourgeois 1985; Dess and Beard 1984; Garg et al. 2003; Simon 1987). The explanation for such divergence can be found in the field of behavioral decision-making, according to which individuals' judgment and decision-making are subject to error and bias (Kahneman et al. 1982; Das and Teng 1999; Mezas and Starbuck 2003).

White et al. (2003), relying on the cognitive appraisal theory (Skinner 1995), concluded that individuals' cognitive traits can create bias in managerial perceptions. For example, extrovert managers are likely to be more proactive in seeking input from others and more adept at interacting with others when making decisions, whereas managers with a more judging-orientated cognitive style are more likely to believe that they have adequate information to make decisions, and hence perceive less risk and experience less uncertainty. Sutcliffe (1994) states that organizational characteristics (e.g. organization information acquisition systems and organizational structure) can also affect managers' perceptions, and Ocasio (1997) argues that organizational procedures and communication structures affect managers' focus of attention. Limited information processing capabilities and the vast quantity and diversity of relevant and accessible information may cause managers to overlook certain aspects of their environment (Hambrick and Mason 1984). Therefore, different individuals in the same context or one individual in different contexts may perceive the same stimuli in different ways (Maitland and Sammartino 2015a; Starbuck and Milliken 1988).

Baack et al. (2015) show that managers' past experiences and existing beliefs (i.e. confirmation bias) shape their perceptions of the distance from foreign markets, which in turn influence their business decisions. Yildiz and Fey (2016) reveal that individuals have asymmetric perceptions of distance (showing the existence of a discrepancy between perceived distance from home country to host country and vice versa), which affects knowledge transfer and organizational commitment in cross-border M&As. In comparing a high-status and a low-status country (based on economic, political and social status), Yildiz and Fey (2016) show that members of the high-status country perceive that the distance to their low-status counterpart is smaller compared with the corresponding distance perceptions of individuals from the low-status country.

Scholars argue that accurate assessment of the differences that may exist between the home and foreign markets is crucial in making successful decisions in cross-border business (Maitland and Sammartino 2015b; Mukherji et al. 2013; Sousa and Bradley 2006). From an empirical study, O'Grady and Lane (1996) conclude that the inaccuracy of Canadian managers' perceptions of the US market as culturally similar to the Canadian market could be an underlying reason for their companies' failure in that market. According to Evans and Mavondo (2002), managerial perceptions of great cultural and business differences in foreign markets lead to a high level of perceived uncertainty, which occurs because the managers sees themselves as lacking sufficient market information to accurately predict the challenges facing the firm in the new foreign market (Maitland and Sammartino 2015b; Ojala 2015;

Yamin and Sinkovics 2006). Thus, firms are generally assumed to perform better in 'close' markets (Kogut and Singh 1988). This is because similarity in culture and other, also formal, institutions leads to ease of learning about the market environment and hence decreases the levels of decision uncertainty (Johanson and Vahlne 1977). Using the concept of confirmation bias, Baack et al. (2015) argue that managers are more likely to process information and revise their perceptions of distance when that information confirms their existing beliefs and past experiences. Thus, when facing 'distant' markets, they are resistant to revising their perceptions and preferences. Therefore, managers may underestimate (or overestimate) how different that country is from their own. This divergence may result in poor performance. Underestimation of differences between countries may explain negative performance outcomes (O'Grady and Lane 1996), for example when unexpected differences result in damage to a company's image or relationships in the foreign country, but also in the form of need for extra resources or loss of time (Orr and Scott 2008). On the other hand, optimistic perceptions of new situations have been related to proactivity and experimentation with new product solutions, which can result in positive performance outcomes (Daniels 2003). However, overestimation of differences can also be related to uncertainty, potentially driving managers to redundant information searches (Pillai 2010) and to making more careful, evolutionary internationalization decisions leading to lower performance (cf. exploitative internationalisation in Barkema and Drogendijk 2007). The above therefore leads us to empirically address the research questions: (1) whether divergence of managers' perceptions of distance from reality diminishes firm performance and (2) whether over- and underestimation of distance have differential effects on firm performance.

### 3 Research Methodology

#### 3.1 Data Profile and Research Setting

To address our research questions, we conducted a survey of 573 senior managers of Swedish companies that satisfied the following criteria: (1) exported products for at least 3 years; and (2) exported to at least two foreign markets. The sample was selected randomly from a population of 963 companies in a set of low-tech industries<sup>4</sup> using a stratified sampling method. This approach allowed us to include respondents from all the selected industrial sectors in the study and hence a more representative sample of the population (in comparison to, for example, simple random sampling) (Robson 2011). We focused on exporting owing to its significance in the global economy (Dhanaraj and Beamish 2003; Singh 2009) and as one of the most common means of entering international markets, which enables firms to employ non-utilized operating capacity, increase production efficiency and, in turn, profits, and to ensure survival in a highly globalized marketplace (Guan and Ma

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<sup>4</sup> These are the forestry, fishing, food products, beverages, garment and furniture industries. The sample in this study consists of only direct exporters.

2003; Katsikeas et al. 1996; Matanda and Freeman 2009; Sousa et al. 2008). Furthermore, Sweden is well suited to the subject of the study because it is a developed country with a very small domestic market, and its economy is extremely dependent on exporting into international markets (World Bank 2014).

### 3.2 Data Collection Procedure

Data collection was conducted via a recognized marketing research agency in Sweden, from February to April 2012. A structured questionnaire was designed for the study and used to collect data from senior managers as key informants. Starbuck and Mezias (1996, p. 115) argue that “for research findings to apply to real-life strategizing or organization design, researchers need data from experienced, practicing managers—especially senior managers”. The questionnaire was designed based on measures from the extant literature (Evans and Mavondo 2002; Evans et al. 2008) and modified for the current research context (Churchill 1979). Additionally, two expert senior researchers reviewed and evaluated the questionnaire. We initially designed the questionnaire in English, and to reduce the risk of misinterpretation, it was then professionally translated into Swedish. The Swedish draft of the questionnaire was reviewed by the marketing research agency for minor modifications, after which it was translated back to English to double-check the correspondence of the terminology used in both languages. We received 158 responses from a total of 573 companies in the sample (approximately 28%), amounting potentially to 316 export ventures. Following Evans and Mavondo (2002) and Evans et al. (2008), the respondents were first asked to nominate two foreign markets to which their company had exported products during the previous three years. In the next stage, the respondents were asked to answer all the questions for both named export ventures. We removed those cases without a specified export market (22 cases) (see Appendix Table 2 for the list of export markets covered by the study). The complete case approach (listwise deletion) was used to handle missing data (Hair et al. 2010).

We tested for non-response bias by comparing early and late respondents (early respondents were defined as the first 75% to return questionnaires, and late as the last 25%) for number of full-time employees, number of years of exporting, and number of export markets. The lack of significant differences between the early and late respondents suggests that response bias was not a significant problem in the study (Armstrong and Overton 1977). Moreover, we conducted t-tests on key variables in our model, such as dimensions of cultural and business divergence, to test for significant differences between these two groups, none of which emerged.

In terms of the characteristics of the sample, most respondents were CEOs of firms with fewer than 50 full-time employees. Given that the firms in our sample were relatively small, the CEOs were highly likely to not only have knowledge about the specific export operations, but also to have been part of the decision process leading to the specific market selection. Most of the firms in the sample had significant international experience and had engaged in export operations for an average of 20 years (SD 14.5, range 2–97). The firms’ average number of export markets was eight (SD 7.7, range 2–40). As expected, the majority of export ventures targeted



other EU countries, but as the list in Appendix Table 2 shows, entries into countries in other parts of the world are included in the sample as well. Firms in the food product and furniture industries were overrepresented in the sample.

### 3.3 Measures

We based our measures on the extant literature but modified them for the study context (Churchill 1979).

#### 3.3.1 Cultural Distance Divergence

Culture is a complex, intangible and subtle phenomenon, which is difficult to conceptualize (Shenkar 2001). As Sullivan (1994) argues, using a single indicator to measure complex concepts (such as culture) inevitably entails methodological biases: for example, misrepresenting the construct, the impossibility of determining reliability, and not taking measurement error into account in analyses. Accordingly, the measures of the dimensions of *perceived* cultural distance used here were adapted from Evans and Mavondo (2002) and Evans et al. (2008). These dimensions were measured based on Hofstede's (1980) definitions and descriptions of the four original dimensions of national culture: power distance (PDI), individualism (IND), masculinity (MAS) and uncertainty avoidance (UAI). Following Evans and Mavondo (2002) and Evans et al. (2008), we asked respondents to indicate the degree to which the named foreign market was similar to the home market (Sweden) on a seven-point scale (1 = totally the same, and 7 = totally different).

According to Starbuck and Mezias (1996), one reason for the limited research to date into the validity of managers' perceptions relates to the difficulty of accessing suitable objective data. Consistent with previous studies (cf. Brock et al. 2011; Moon and Park 2011), in the present study, Hofstede's (1980) scores for the four abovementioned dimensions of national culture were used as the basis for calculating 'objective' measures of cultural distance. Despite increasing criticism regarding theoretical and methodological issues (see, for example, McSweeney 2002; Spector et al. 2001), Hofstede's framework is still among the most influential (Kirkman et al. 2006; Oyserman et al. 2002). According to Tung and Verbeke (2010, p. 1259), Hofstede's seminal work, "Culture's Consequences: International Differences in Work-Related Values (1980), succeeded in putting cross-cultural analysis at the forefront of IB research". Kogut and Singh (1988) argue that Hofstede's study has appealing attributes in terms of, for example, sample size, codification of cultural traits along a numerical index and an emphasis on attitudes in the workplace. Moreover, extensive evidence attests to the applicability of Hofstede's (1980, 2001) national cultural scores (Brock et al. 2011; Burchell and Gilden 2008; Dikova and Sahib 2013; Kogut and Singh 1988; Lee et al. 2013; Minkov and Hofstede 2011; Morosini et al. 1998; Shane 1992; Taylor and Wilson 2012). By investigating different operationalizations of cultural distance, Magnusson et al. (2008) find that the cultural distance construct based on Hofstede's scores has strong convergent validity. Beugelsdijk et al. (2015b) analyze scores of societies on culture dimensions using a cohort analysis, and find

that although absolute scores of societies on culture dimensions have changed slightly over time, relative differences have remained. Since relative differences between country pairs also form the basis of our analysis of distance, we decided to use countries' original scores on Hofstede's value dimensions. We applied Hofstede's framework, owing to—in addition to its appealing attributes—its comparability to the perceptual measures of cultural distance in the present study and also its large scope, as it covers all the foreign markets nominated by the respondents in this study. For example, the scores on Schwartz's (1994) dimensions are not available for Sweden (the home market in this study). Likewise, the scores on the dimensions identified by the GLOBE study (House et al. 2004) are not available for Norway (one of the main markets nominated by the respondents in this study). Moreover, a comprehensive review of all the instruments used to measure culture revealed that the extant measures closely resemble Hofstede's (1980) framework (Taras et al. 2009).

To measure the cultural distance (both 'objective' and perceptual) to the foreign markets, we calculated the Euclidean distance between the index for each dimension of each country and the corresponding index for Sweden (i.e. the home country) (Barkema and Vermeulen 1997; Brouthers and Brouthers 2001; Drogendijk and Slangen 2006). In calculating the Euclidean distance in the perceptual model, we created composite indices for each dimension by calculating the mean of the three indicators per dimension (Appendix Table 3). In this model, the indices for all cultural dimensions for Sweden were considered to be equal to '1' (Evans et al. 2008). The 'distances' were then corrected for differences in the variance of each dimension. Algebraically, the following formula was used:

$$ED_{ji} = \sqrt{(I_{ij} - I_{is})^2 / V_i}$$

where  $ED_{ji}$  is the Euclidean distance in the  $i$ th cultural dimension of the  $j$ th foreign market from Sweden,  $I_{ij}$  represents the index of the  $i$ th cultural dimension and the  $j$ th market,  $s$  indicates Sweden, and  $V_i$  is the variance of the index of the  $i$ th dimension.

To calculate the cultural distance divergence, first we standardized all distance variables for each dimension (in both 'objective' and perceptual models). Standardizing the variables enabled us to create comparable variables (Hair et al. 2010). Then, using the Euclidean distance formula<sup>5</sup>, the divergence of perceptual measures from 'objective' measures in each dimension of cultural distance ( $D_{ji(\text{div})}$ ) was calculated (compare Azar and Drogendijk 2017). We conceptualized the construct 'cultural distance divergence' ( $CD_{\text{div}}$ ) as a reflective construct comprising the divergence in each cultural dimension of the foreign markets from Sweden ( $D_{ji(\text{div})}$ ) that are the manifestations of the overall construct (Jarvis et al. 2003). Unlike Kogut and Singh's (1988) formula for calculating cultural distance (treating cultural distance as

<sup>5</sup>  $D_{ji(\text{div})} = \sqrt{(ED_{jio} - ED_{jip})^2}$ , where  $D_{ji(\text{div})}$  is the distance divergence in the  $i$ th cultural dimension of the  $j$ th foreign market from Sweden,  $ED_{ji}$  represents the Euclidean distance in the  $i$ th cultural dimension of the  $j$ th foreign market from Sweden,  $o$  indicates the objective distance and  $p$  indicates the perceptual distance.

an aggregated construct), this approach enables us to take into account the different effects and implications of different dimensions of cultural distance (Shenkar 2001).

### 3.3.2 Business Distance Divergence

Using measures developed by Evans and Mavondo (2002) and Evans et al. (2008), we operationalized the construct *business distance* in three dimensions: political environment (PE), economic environment (EE) and business practices (BP).<sup>6</sup> We asked respondents to indicate the degree to which the foreign market was similar to the home market (Sweden) on a seven-point scale (1 = totally the same, and 7 = totally different) (Appendix Table 3).

Based on the definitions and descriptions of the three dimensions of business distance (Evans and Mavondo 2002), we extracted the corresponding objective measures for each dimension as a basis to conceptualize the construct 'objective' *business distance*. We used the Economist political instability index for the period 2009/10 as proxy for *political environment*. The political instability index scores are derived by combining measures of economic distress and underlying vulnerability to unrest, which indicates the level of threat posed to governments by social protest (Economist 2016). Data for measuring the economic environment and business practices dimensions were extracted from the World Bank (2016), detailed as follows.<sup>7</sup> We measured the dimension *economic environment* using three indicators: GDP per capita; Bank capital to its assets (the ratio of bank capital and reserves to total assets); and Household final consumption expenditure (% of GDP). Finally, we measured the dimension *business practices* using two indicators: Vulnerable employment (unpaid family workers and own-account workers as a percentage of total employment); and Strength of legal rights index (the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending).

To measure the business distance (both 'objective' and perceptual) to the foreign markets and subsequently the *business distance divergence*, we carried out the same procedures as for cultural distance.<sup>8</sup> Likewise, we conceptualized the construct 'business distance divergence' ( $BD_{div}$ ) as a reflective construct comprising the divergence in each business dimension of the foreign markets from Sweden that are the manifestations of the overall construct.

### 3.3.3 Firm Ex-post Performance

We measured firm performance using two objective financial indicators: Return on assets (ROA) (the ratio of net income to total assets) and Sales. These measures are among the most common performance indicators used in export literature

<sup>6</sup> For each dimension of 'business distance' we selected the indicators for which we were able to find the corresponding objective measure(s).

<sup>7</sup> To be consistent with perceptual data, we used a mean of measures for the years 2011 and 2012 where available.

<sup>8</sup> Regarding the constructs with multiple indicators, we first calculated the divergence in each indicator. We then used the mean of all 'divergences' as a composite indicator for the corresponding construct.

(see, for example, Evans and Mavondo 2002; Evans et al. 2008; Haathi et al. 2005; Hutzschenreuter and Voll 2008; Kim et al. 2010; Slangen et al. 2011). The underlying data for firm performance were extracted from firms' financial reports (Allablag.se 2016) and supplemented to the survey data. We used LN transformations of the mean of data for 2013, 2014 and 2015.<sup>9</sup> We deliberately selected these financial years to enable us to examine the ex-post effects of 'distance divergence' (calculated based on 2012 data) on firm performance. Using objective measures of performance avoids the problem of common method variance, which occurs when the same individuals answer questions about firm performance as well as 'distance'—i.e. on the explained and explanatory sides of the equation—in the same way (Shane 1995).

We used the number of full-time employees as a proxy for firm size (LN-transformed), together with international experience, measured as number of foreign markets to which the firm exports and number of years exporting (both LN-transformed), and entered them as control variables in the model. The size of a firm is suggested to enhance its performance. Using economies of scale, access to specialized executives, own marketing department and sales force, possibility of financing to a lower cost and higher capacity to develop new products, among others, can all provide advantages for larger firms to enhance their performance (Wagner 1995, 2001). Likewise, a firm's international experience is suggested as one of the key determinants of its performance. Specifically in regard to exporting firms, knowledge of differences in foreign markets enables competent firms to select the most attractive export markets and adopt appropriate marketing strategies in those markets (Sousa et al. 2008). We used firms' international experience as a proxy for managers' international experience, as in small firms (as in our sample), strategies and decisions are mostly dependent on the (senior) managers. Finally, we controlled for the geographical distance (GD)<sup>10</sup> between the home country and foreign markets in our model. Geographical distance is associated with increased transportation and communication costs in cross-border business (Ghemawat 2001). Carlson (1974) further suggests that geographical distance influences the transmission costs of critical management information that requires face-to-face relations.

## 4 Data Analysis and Results

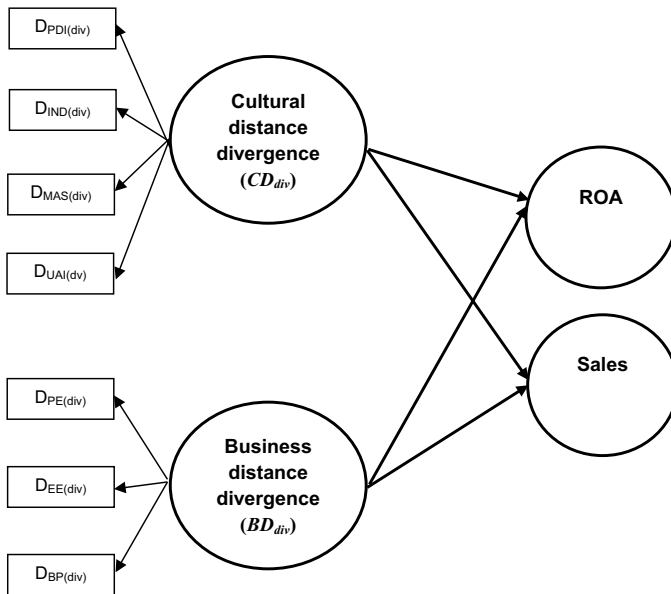
We assessed the underlying measurement model properties and analyzed the structural model using maximum likelihood estimation with LISREL 8.8 (Jöreskog and Sörbom 2006). Structural equation modeling (SEM) allows us to explain the relationships between unobservable variables (constructs) that are represented by observable or measurable variables (indicators). Applying constructs allows us to better represent complex theoretical concepts (e.g. cultural/

<sup>9</sup> We used data for 2012, 2013 and 2014 where applicable.

<sup>10</sup> Geographical distance was calculated in terms of the natural logarithm of actual distance in kilometers between the capitals of the home country (Sweden) and the foreign country *j*. The distance in kilometers was obtained from the Geobytes Databases.

business distance) by using multiple measures of a concept to reduce the measurement error. Moreover, by accounting for the measurement error in the concepts, SEM improves the statistical estimation of the relationships between the concepts (Hair et al. 2010). We assessed all measures for convergent validity by performing a confirmatory factor analysis (CFA) and calculating average variance extracted (AVE) (Fornell and Larcker 1981) for all perceptual constructs (Appendix Table 3). All the AVE values were greater than 0.5, indicating convergent validity. We assessed individual item reliability by examining the standardized loadings of items on their corresponding construct. All items had loadings of 0.7 or more (0.5 is the minimum accepted value), which implies that all items converged on the common construct (Gerbing and Anderson 1988). We determined the corresponding Cronbach's alpha values for all perceptual constructs, as shown in Appendix Table 3. All values were greater than 0.8, indicating high reliability and consistency of the entire scale (0.6 is the lower limit for Cronbach's alpha) (Hair et al. 2010).

We used a path model to examine the influence of the constructs 'cultural distance divergence' ( $CD_{div}$ ) and 'business distance divergence' ( $BD_{div}$ ) on firm performance, ROA and Sales, depicted in Fig. 1. We controlled for firm size, international experience and geographical distance in the model.



Notes:  $\chi^2 = 91.03$  (49 d.f.,  $p = 0.00$ ); RMSEA = 0.073; CFI = 0.90; IFI = 0.91; GFI = 0.92; AGFI = 0.85.

We controlled for firm size, international experience and geographic distance from the foreign market. RMSEA = root mean square of approximation; CFI = comparative fit index; IFI = incremental fit index; GFI = goodness of fit index; AGFI = adjusted goodness of fit index.

**Fig. 1** The conceptual framework

**Table 1** Correlations, means, and standard deviations

Indicators	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. $D_{PDI}(\text{div})$	0.75	0.56	1												
2. $D_{IND}(\text{div})$	0.76	0.73	0.20**	1											
3. $D_{MAS}(\text{div})$	0.80	0.65	0.01	0.44**	1										
4. $D_{UAI}(\text{div})$	0.93	0.69	0.07	0.24**	0.24**	1									
5. $D_{PE}(\text{div})$	0.95	0.60	0.03	0.07	-0.18*	0.04	1								
6. $D_{EE}(\text{div})$	0.88	0.46	0.16*	0.21**	0.03	0.15	0.18*	1							
7. $D_{BP}(\text{div})$	0.99	0.81	0.28**	0.38**	0.01	0.05	0.12	0.33**	1						
8. $GD(\ln)$	6.70	1.02	0.19*	0.34**	0.16*	0.18*	-0.01	0.33**	0.52**	1					
9. $ROA(\ln)$	1.08	2.11	-0.06	-0.04	-0.11	0.04	-0.13	0.00	-0.10	-0.00	1				
10. $Sales(\ln)$	10.9	1.80	-0.22**	-0.12	0.02	0.00	-0.06	-0.01	0.01	0.02	-0.04	1			
11. $Firm\ size(\ln)$	3.24	1.45	-0.22**	-0.07	0.06	-0.06	0.02	-0.00	-0.05	0.00	-0.08	0.86**	1		
12. $International\ experience(\ln\ number\ of\ years\ exporting)$	2.83	0.75	-0.20**	-0.02	0.09	0.06	0.01	0.15	0.00	0.08	-0.06	0.30**	0.28**	1	
13. $International\ experience(\ln\ number\ of\ export\ markets)$	1.84	0.82	-0.12	0.08	0.09	0.18*	-0.06	0.06	0.05	0.17*	-0.08	0.40**	0.30**	0.20**	1

SD standard deviation

\*Correlation is significant at the 0.05 level (2-tailed)

\*\*Correlation is significant at the 0.01 level (2-tailed)

Initially, we performed a CFA with the measurement model (Anderson and Gerbing 1988). All indices indicated that the measurement model had an adequate fit to the data [ $\chi^2=88.76$  (48 df,  $p=0.00$ ); RMSEA=0.073; CFI=0.90; IFI=0.91; GFI=0.92; AGFI=0.85]. The statistical properties of the indicators are reported in Table 1. To test for discriminant validity, we used the method recommended by Burnkrant and Page (1982). We compared the goodness of fit of two measurement models: One model based upon a perfect correlation (constrained at 1) among the constructs (a one-factor model) and another model that does not consider this restriction. The results clearly indicate the better fit of the non-restricted model (CFI=0.90; RMSEA=0.073) compared with that of the restricted model (CFI=0.13; RMSEA=0.173), attesting to discriminant validity (Stoian et al. 2011).

In the next stage, we performed a CFA with the structural model to examine the relationships among the constructs. The indices of the structural model were also satisfactory (Fig. 1). Accordingly, the path coefficient between *cultural distance divergence* and sales was negative and significant ( $\beta=-0.13$ ,  $p<0.05$ ); however, the path coefficient in relation to ROA was not statistically significant. Unexpectedly, the path coefficient between *business distance divergence* and neither sales nor ROA was statistically significant. Regarding the control variables, as expected, both firm size ( $\beta=0.80$ ,  $p<0.05$ ) and international experience ( $\beta=0.18$ ,  $p<0.05$ ) positively and significantly influenced sales. Geographical distance did not affect our performance variables.

Finally, inspired by previous work on the role of managerial perceptions and specifically perceptual errors in international expansion (O'Grady and Lane 1996; Orr and Scott 2008) and broader strategy domains (Pillai 2010), we assessed whether over- or underestimation of cultural distance had differential effects on firm performance. By calculating an average of the standardized values of each dimension of perceptual and objective cultural distance, we created two variables: averaged perceptual cultural distance and averaged 'objective' cultural distance. We compared the (absolute) values between the two variables and created a dummy variable which takes the value '1' when the averaged perceptual cultural distance was larger than the averaged 'objective' cultural distance (i.e. overestimation) and '0' when the averaged perceptual cultural distance was smaller than the averaged 'objective' cultural distance (i.e. underestimation).<sup>11</sup> We then conducted an independent-samples t test to compare the ex-post performance (ROA and Sales) between the two groups. There was no statistically significant difference with regard to either ROA or Sales for over- and underestimation. In other words, over- and underestimation of cultural distance did not have differential effects on firm performance.

## 5 Discussion and Concluding Remarks

Despite much research on 'distance', our knowledge regarding the effect of divergence of managers' perceptions of distance from 'reality' and its implications for firm performance is rather limited. Recent research has called for the use of

<sup>11</sup> It is noteworthy that the majority in our sample (52.5%) underestimated the cultural distance between the home and foreign markets.

perceptual, individual-level measures of distance in IB research (cf. Ambos and Håkanson 2014; Zaheer et al. 2012), mainly on the premise that strategic decisions and organizational behavior rely on managerial perceptions of the firm's environment (Buckley et al. 2007; Child et al. 2002). However, although the initial assumption in many organizational theories and practices is that managers accurately perceive their organizations' environments (Mezias and Starbuck 2003), previous research has reported errors and biases in managers' perceptions of their firms' environment (Lant et al. 1992; Meier and O'Toole 2013; Starbuck and Mezias 1996), including differences in foreign markets (Baack et al. 2015; O'Grady and Lane 1996; Orr and Scott 2008; Yildiz and Fey 2016). The latter is of significant importance, since accurate executive judgment of differences between countries is crucial in making successful decisions and enhancing performance in cross-border business (Maitland and Sammartino 2015b; Mukherji et al. 2013; Powell et al. 2011). Our study aims to contribute to a series of recent studies that have expanded our understanding of managerial perceptions of distance between countries and their effects on key IB decisions (Maitland and Sammartino 2015b; Williams and Grégoire 2015) and behaviors (Obadia 2013; Orr and Scott 2008).

This research introduces a novel conceptualization of distance, 'distance divergence', and is a first attempt to explore empirically the ex-post performance implications of divergence of managers' perceptions of distance from 'objective' distance when expanding into foreign markets. Our empirical study has shown that the larger the divergence of managers' perceptions of cultural differences from 'actual differences' as expressed in Hofstede scores on cultural dimensions, the lower the performance expressed in sales. In line with organization theory, we find that firms perform better in terms of sales when their perceptions of the environment coincide with 'reality' (Bourgeois 1985; Dess and Beard 1984; Garg et al. 2003).

Furthermore, intuitively, firms are generally assumed to perform better in 'close' markets than in 'distant' markets (Kogut and Singh 1988; Nordström and Vahlne 1994). However, research shows that firms may indeed obtain better performance in distant markets, a phenomenon known as the 'distance paradox' (O'Grady and Lane 1996). Scholars assert that the inconclusive results with regard to the relationship between distance and firm performance could be due to the fact that the assumption of linear impact of distance on performance may not be realistic (Shenkar 2001; Wang and Schaan 2008). We argue that it is not perhaps 'distance' per se, or exclusively, which determines the firm's performance; instead, the determinant is the degree of accuracy in managers' perceptions of distance. Our study further showed that over- or underestimation of cultural distance between countries did not have differential effects on firm performance. This result is in contrast to suggestions made in previous research that unanticipated, or underestimated, differences are indeed more detrimental for performance in foreign countries than are overestimated differences (O'Grady and Lane 1996).

This study also helps to alleviate the scarcity of research analyzing the validity of perceptual data in organizational behavior studies. Studying perceptual accuracies will improve research methods, leading to the creation of a stronger foundation for theories about managerial behavior (Starbuck and Mezias 1996). Our study is one of the first attempts to measure such accuracy and its effects on the performance



of foreign operations of firms. In this study, we used Hofstede's country scores as 'objective' measures for cultural distance. It can be argued that Hofstede's scores are also based on the perceptions of individuals, as they are derived from the survey instrument used by Hofstede to measure work preferences. Yet, the validity, reliability and scale of Hofstede's national cultural scores may allow researchers to use them as 'objective' or 'hard' data in assessing cultural differences between countries (Brock et al. 2011). Furthermore, given the complexity and abstract nature of the concept of 'culture', we argue that no measure of culture could be considered as entirely 'objective'. We compared our respondents' individual perceptions of cultural differences between host countries and Sweden to Hofstede's dimension scores, which are not only based on several indicators, but also aggregated over large groups of respondents to calculate 'cultural distance divergence'. Future studies may replicate this investigation using other frameworks to conceptualize cultural distance to establish or refute the validity of our approach (cf. Avloniti and Filippaios 2014). Moreover, it can be argued that Hofstede's (1980) cultural distance scores were collected between 1967 and 1973, while the scores for perceived cultural distance in the current study were based on a 2012 survey. Brown (1995) argues that culture develops continuously over time. However, Hofstede (2001, p. 34) disputes this, claiming that "national cultures are extremely stable over time". He argues that "culture change basic enough to invalidate the county dimension index scores will need either a much longer period [...] or extremely dramatic outside events" (Hofstede 2001, p. 36). Others have furthermore shown that national cultural values of many countries change in the same direction, suggesting that distance between cultures based on country scores is relatively stable (Beugelsdijk et al. 2015a). In this study, we measured cultural distance constructs based on Hofstede's four original dimensions. We used those dimensions due to their comparability with dimensions of perceived cultural distance and also the availability of scores for the foreign markets covered by the study. However, we encourage future research incorporating other dimensions (e.g. long-/short-term orientation and indulgence/restriction) where appropriate.

It is noteworthy that our study shows that in contrast to cultural distance, divergence of managers' perceptions of business distance from objective measures does not influence firms' ex-post performance. Accordingly, an explanation for such result could be that the perceptual measures for the dimensions of business distance did not capture the full meaning of these dimensions, as indicators were included when objective data for the corresponding objective measure were available. In contrast, the indicators for the perceptual measure of cultural distance were purposively included to cover the aspects of their corresponding objective measures—namely, the Hofstede dimensions. Alternatively, this may suggest that over- or underestimating differences in the more tacit domain of cultural values and behaviors leads to more important repercussions on performance, as it may be more difficult for managers to make sense of new information and adjust perceptions of cultural and other social situations (Weick 1995). Wood and Robertson (2000) suggest that managers in different industries may consider only certain types of information and aspects of foreign markets as highly important when taking export decisions. They showed that in consumer product industries, export managers generally valued information

regarding the foreign market culture more highly than information regarding, for instance, the political and economic environment. More research is needed, however, to estimate the diverse costs and performance effects of managers' perceptions and misperceptions of cultural and other differences in foreign expansions (Orr and Scott 2008). We acknowledge that the link between distance divergence and performance may be mediated by other factors (e.g. firm international marketing strategy, innovation capability). We encourage future research to incorporate appropriate mediating variables in models testing the explanatory power of distance divergence in relation to firm performance.

We should also acknowledge that the cross-sectional method applied in this study could not capture the dynamic aspects of strategy formulation in international markets and causality among constructs. We sought to capture this by collecting performance data from the years following our survey, collecting perceptual data on cultural and business distance. Future studies should address the relationships proposed in the conceptual model using longitudinal data to overcome such limitations and to allow for a more accurate evaluation of the causality in the relationship among cultural and business distance divergence and firm performance. Likewise, future research could endeavor to explore which aspects or expressions of firm performance are influenced by cultural distance divergence, as our study suggests that differences may exist: Our empirical study shows a significant relationship between cultural distance divergence and sales performance, but not ROA. Mas et al. (2006), explaining the differences between asset-based and operating-based performance measures (in our paper ROA and sales respectively), state that compared to asset-based performance measures, operating-based measures are expressed in more current monetary terms which better reflect the inter-firm performance differences. They argue that assets would have been normally acquired over a longer time frame and carried at book values, thus performance measures like ROA can display greater distortion than operating-based measures like sales (Mas et al. 2006). Furthermore, in light of the small size of the firms in our sample, as well as the industry focus on mostly consumer products, it is not surprising that performance expressed in sales is more directly related to activities abroad and thus to market selection decisions and cultural distance assessments by the firms' managers.

This study focused on the implications of the divergence of managers' perceptions of distance. An interesting avenue for future research is to include managers' limitations and cognitive biases into the analysis, which would provide more insights into the determinants of such divergence. An obvious example of such bias is managers' likely individual knowledge or experience with the respective countries, which has been shown to affect managerial perceptions of commonalities and differences between countries (Maitland and Sammartino 2015b; Williams and Grégoire 2015). Finally, the findings of this study are based on the perceptions of managers in a number of sectors but from a single home market: Sweden. Although our selection of these industries was related to important growth of exports in these

sectors in Sweden, this may limit the generalizability of our findings and could create a problem of so-called confounding variables.<sup>12</sup> Future studies should replicate this research in other regional and industrial contexts, using samples comprising more than one home country.

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## Appendix 1

**Table 2** Export markets covered by the study

Export markets			
Albania	Ghana	Norway	UK
Australia	Iceland	Panama	USA
Belgium	Iran	Poland	Venezuela
China	Italy	Qatar	
Canada	Japan	Russia	
Denmark	Kuwait	South Korea	
Estonia	Latvia	Spain	
Finland	Lithuania	Switzerland	
France	Lebanon	Turkey	
Germany	Netherlands	UAE	

The top destinations were Norway (27.8%), Denmark (13.6%), Finland (13.6%), Germany (8.1%), the UK (6.8%), Russia (4%) and the USA (3.7%)

<sup>12</sup> It is noteworthy that the concept of distance divergence and its constituent variables in this study are measured at the individual level and not at an aggregate country level. This means that the variation in ‘distance divergence’ is not merely dependent on the variation on the side of the host country, but rather, and very explicitly so, on the side of the perceivers from the home country (Sweden) as well.

## Appendix 2

**Table 3** Perceptual constructs, items, reliability, and convergent validity

Constructs and items	
<b>Perceptual cultural distance</b> (second-order) ( $\chi^2 = 139.19$ , $df = 50$ , $p$ -value = 0.00, $RMSEA = 0.07$ )	
<i>Power distance</i> (PDI) (AVE = 0.68, $\alpha = 0.85$ )	
Degree of inequality among the people	0.89
Salary range between the highest and lowest paid in organizations	0.82
Importance of social status symbols	0.77
<i>Individualism/collectivism</i> (IND) (AVE = 0.64, $\alpha = 0.83$ )	
Importance of loyalty to family and friends	0.71
Recognition of the right to privacy	0.85
Freedom of the press	0.84
<i>Masculinity/femininity</i> (MAS) (AVE = 0.66, $\alpha = 0.84$ )	
Importance of caring for others	0.83
Importance of material success	0.77
Degree to which women are expected to be assertive and ambitious	0.84
<i>Uncertainty avoidance</i> (UAI) (AVE = 0.64, $\alpha = 0.83$ )	
Openness to change and innovation	0.78
Tolerance of differences (i.e., religious, political, and ideological)	0.80
Reliance on rules to govern behavior	0.82
<b>Perceptual Business Distance</b> (second-order) ( $\chi^2 = 15.64$ , $df = 7$ , $p$ -value = 0.028, $RMSEA = 0.06$ )	
<i>Political environment</i> (PE)	
Stability of political structure	1
<i>Economic environment</i> (EE) (AVE = 0.72, $\alpha = 0.86$ )	
Gross domestic product (GDP) per capita	0.85
Capacity of the banking sector	0.88
Level of demands for goods and service	0.82
<i>Business practices</i> (BP) (AVE = 0.72, $\alpha = 0.82$ )	
Terms of conditions of employment	0.81
Credits and financial arrangements with banking institutions	0.89

The values next to each item are standardized loadings

AVE average variance extracted (Fornell and Larcker, 1981),  $\alpha$  Cronbach's coefficient alpha, RMSEA root mean square of approximation

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