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# Cultural diversity and operational performance: entrepreneurial orientation as a mediator

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## Abstract

**Purpose** – The purpose of this paper is to test the mediating role of entrepreneurial orientation in the nexus between cultural diversity (CD) and firm operational performance (OP).

**Design/methodology/approach** – The population of the current study is foreign industrial firms listed in the tax directorate of the Kurdistan region of Iraq (KRI). A stratified random sampling technique was applied to select 136 firms in KRI, with a response rate of 57 per cent. Smart-PLS was used to examine the hypothesised relationships in the proposed framework.

**Findings** – The results indicate that CD is significantly related to a firm's OP. Entrepreneurial orientation (EO) is, in turn, significantly related to a firm's OP. Furthermore, the results provide evidence that EO plays a mediating role in the nexus between CD and a firm's OP.

**Originality/value** – The study highlights the importance of CD and EO in supporting a firm's OP. In addition, the findings will provide scholars and managers a deeper understanding of the role of EO as a mediator through which CD enhances a firm's OP.

**Keywords** Entrepreneurial orientation, Operational performance, Cultural diversity

**Paper type** Research paper

## Introduction

The resource-based view (RBV) argues that a firm's operational performance (OP) is contingent on the possession of resources that are invaluable, scarce, imperfectly imitable, and irreplaceable. Firms possessing such resources can enhance their performance and meet their goals (Barney *et al.*, 2001; Mathews, 2002). However, when operating outside their home country, foreign firms face numerous challenges in their quest to achieve their goals because cultural barriers make it difficult to enhance OP (Guo and Shi, 2012; Kevin *et al.*, 2000; Yoo *et al.*, 2006). Hence, foreign entry is expected to have unique barriers and costs (Barkema *et al.*, 1996).

To address this challenge, the scholarly literature suggests that hiring employees from diverse cultures may enhance the OP of foreign firms and overcome resource and cultural limitations (Gambi *et al.*, 2015; Hofstede, 1994; Huy Quang *et al.*, 2017; Kevin *et al.*, 2000; Richard *et al.*, 2004). Cultural diversity (CD) can provide many opportunities (Fayolle *et al.*, 2010; Sonfield *et al.*, 2016; Zeffane, 2014) and help firms gain invaluable knowledge while complementing deficient resources and competencies (Altimay and Wang, 2011; Klyver *et al.*, 2008; Zheng *et al.*, 2010). However, the nexus between CD and OP is not universal and is mediated by strategic resources, such as the firm's entrepreneurial orientation (EO) level (Barkema *et al.*, 1996; Roxas and Chadee, 2012). Accordingly, the previous literature has shown that CD can be a resource for forming an EO, which, in turn, contributes to firm



performance (Fayolle *et al.*, 2010; González-Benito *et al.*, 2009; Klyver *et al.*, 2008; Shirokova *et al.*, 2016; Sonfield *et al.*, 2016).

Due to its valuable effects, the mediating role of EO has been widely studied to interpret the relationships between different organisational and cultural constructs and firm OP. For example, Roxas and Chadee (2012) detected a positive effect of EO on the nexus between informal institutions as a cultural dimension and performance. Richard *et al.* (2004) examined the effect of EO on the nexus between CD in terms of racial and gender differences and firm performance. However, there is an insufficient understanding of the mediating role of EO in enhancing the nexus between CD and firm performance (Crespo, 2017; Hughes and Morgan, 2007; Messersmith and Wales, 2011), which calls for more research to investigate the mechanisms explaining this nexus.

Moreover, a wide stream of the literature on firm OP has been conducted in stable environments (Richard *et al.*, 2004; Shirokova *et al.*, 2016). Conducting research in a troubled and unstable environment, such as the Kurdistan region of Iraq (KRI) (Aljanabi and Noor, 2015a), may therefore provide fresh insights and expand the understanding of the effects of CD and EO on firm OP.

Based on the above discussion, this study aims to determine the relationship between CD and firm OP, the relationship between CD and EO, and the mediating effect of EO on the relationship between CD and firm OP. These objectives will be achieved by employing empirical data from foreign industrial firms working in KRI. The importance of this study falls within three main scopes. First, this study offers a better understanding of the compound effect of CD dimensions on firm OP. This study adopts the well-known and extensively used model of CD developed by Hofstede (Fayolle *et al.*, 2010; Urban and Ratsimanetrimanana, 2015; Wu, 2006; Zeffane, 2014). While previous studies were confined to five dimensions of CD or fewer, this study examines the most recent six dimensions of Hofstede's model, thereby participating in an expansion of the literature related to organisational culture research (Crespo, 2017; Fayolle *et al.*, 2010; Urban and Ratsimanetrimanana, 2015).

Second, the current study contributes to the EO literature by examining exogenous variables of EO. Although numerous scholarly explorations have examined the nexus between EO and firm performance (Engelen *et al.*, 2015; Messersmith and Wales, 2011; Sciascia *et al.*, 2014; Shirokova *et al.*, 2016), there is still an empirical gap related to the antecedents of EO and how EO interacts with these variables to increase firm performance (Engelen *et al.*, 2015). Finally, this study expands knowledge of the RBV and opens avenues for future RBV research by providing an understanding of the mechanisms by which firms can recompense deficiencies of internal resources and enhance performance.

The rest of this paper is structured as follows. The second section discusses the theoretical background and the proposed hypotheses. The third section explains the methodology employed, while the fourth section presents the statistical analysis and results. The final section of this study discusses the results and outlines potential avenues for future studies.

## **Theoretical foundation and hypothesis development**

### *Cultural diversity and firm operational performance*

Firm OP has been measured from different viewpoints, each of which has revealed different dimensions of success (Huy Quang *et al.*, 2017; Lang *et al.*, 2012; Truong *et al.*, 2017). Some approaches have focussed on customer satisfaction, market effectiveness, lead time, the number of customer complaints and financial performance (Engelen *et al.*, 2015; Gambi *et al.*, 2015), while others have measured OP by focussing on the four dimensions of cost, quality, delivery and flexibility (Naor *et al.*, 2008). Innovation-related performance and customer-related performance (Ngo and O'Cass, 2012; Wu, 2015) or long-term and short-term performance (O'Regan and Ghobadian, 2004) have also been assessed.

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Because the unit of analysis in this study is industrial firms, firm OP will be measured based on cost, quality, delivery and flexibility.

Given the significant effects of cultural values on firm OP, a sizable number of studies have concluded that firms can maintain and develop their competitiveness by integrating cultural values into their strategic orientation (Aramand, 2013; Gadenne and Sharma, 2009; Gupta, 2011; O'Regan and Ghobadian, 2004; Parast *et al.*, 2011). For example, firms with less diversity of individual beliefs and behaviours will be less likely to respond creatively to environmental changes (Fayolle *et al.*, 2010). Thus, CD can bridge cultural boundaries, offer dramatic solutions for sophisticated problems, and enhance a firm's competitive advantage by reducing response times and error rates and increasing customer satisfaction and quality (Corbett and Rastrick, 2000; Jehn and Bezrukova, 2004; Pless and Maak, 2004; Todorovic and Ma, 2008). The first large-scale study of CD was proposed by Hofstede in the early 1980s (Gambi *et al.*, 2015; Lo *et al.*, 2017; Wu, 2006), and Hofstede's dimensions are widely used in cross-cultural management research to measure CD (Lo *et al.*, 2017). CD refers to the "mixture of people with different group identities within the same social system" (Fleury, 1999) and is revealed through six dimensions (Crespo, 2017; Hofstede, 1994; Lo *et al.*, 2017; Urban and Ratsimanetrimanana, 2015). First, power distance pertains to the acceptance of power variations among a culture's members (Aramand, 2013; Hofstede, 1994; Lagrosen, 2003). Prior studies have documented the effects of power distance on an individual's attitudes and job performance (Sue-Chan and Ong, 2002; Vidyarthi *et al.*, 2014; Yoo *et al.*, 2006). The power distance of individuals is an influential aspect of the social context that affects the extent to which power is used to support firm performance. For example, low-power-distance managers rely more confidently on the abilities of their followers (Gupta, 2011; Tjosvold and Sun, 2010; Wu, 2006) and have greater EO than managers with high power distance (Aramand, 2013). Second, uncertainty avoidance reflects the level of tolerance for uncertainty and vagueness (Lagrosen, 2003; Lo *et al.*, 2017; Mukherjee *et al.*, 2012). Firms typically try to avoid uncertainty and ambiguity by adhering to written rules to support their performance (Gupta, 2011; Wu, 2006). Firms operating in low-uncertainty-avoidance cultures show more entrepreneurial attitudes and higher performance (Swierczek and Ha, 2003). Third, individualism–collectivism is the tendency of individuals to prioritise their own self-interests over group interests (Crespo, 2017; Lo *et al.*, 2017; Sousa-poza *et al.*, 2001). As this dimension affects the way in which individuals evaluate their own goals against common and organisational goals (Gundlach *et al.*, 2006; Mukherjee *et al.*, 2012), several scholars view entrepreneurial activities and high performance as more individualistic than collectivist (Zeffane, 2014). Thus, firms operating in cultures of high individualism appear to have higher performance than those in collectivist cultures (Todorovic and Ma, 2008). However, other scholars have argued that neither individualism nor collectivism is significantly associated with performance (Aramand, 2013). In addition, individualistic action may be an impediment to achieving high performance of entrepreneurial firms (Massa and Testa, 2008). Fourth, masculinity–femininity is the inclination of a society to value stereotypically masculine or feminine traits (Hechavarria and Ingram, 2016; Hofstede, 1994). Gender differences may represent a cultural barrier to the performance of individuals and groups that limits both resources and opportunities for firms and affects the nature of their social structure (Hechavarria and Ingram, 2016; Valliere, 2015). Gupta (2011) argued that firms with gender equality and egalitarianism can achieve high performance levels. Similarly, Jehn and Bezrukova (2004) argued that gender differences are negatively associated with performance. Fifth, long-term/short-term pertains to the extent to which the orientation of a culture is long-term or short-term (Hofstede, 1994; Lo *et al.*, 2017). Cultural patterns have a significant influence on both long- and short-term performance (O'Regan and Ghobadian, 2004). A long-term-orientation culture provides a guarantee of continued success and

long-term performance through the external orientation of the firm. By contrast, an internal orientation can enhance a firm's short-term performance (Ngo and O'Cass, 2012; O'Regan and Ghobadian, 2004). Sixth, indulgence-restraint pertains to the extent to which a culture promotes gratification or repression through its regulations (Crespo, 2017; Sonfield *et al.*, 2016). Differences in indulgence vs restraint orientations have been associated with firm performance (Urban and Ratsimanetrimanana, 2015). Based on the above debates regarding the effects of CD on firm performance, this study hypothesises the following:

H1. CD has a positive and significant effect on a firm's OP.

### *Entrepreneurial orientation and firm operational performance*

As noted in the literature on strategy, EO implies that the behaviour of firms allows them to adopt an entrepreneurial position towards new potential opportunities (Bello-pintado *et al.*, 2018; Engelen *et al.*, 2015; Lumpkin and Dess, 1996). Since Miller and Friesen (1982) suggested the EO construct in their seminal article, a general consensus has emerged on the role of EO in enhancing firm OP (Boso *et al.*, 2012; Grinstein, 2008; Laforet, 2011). Following Miller (1983), EP is usually defined as a combination of integrated processes and actions drawn from three dimensions: risk taking, innovativeness and proactiveness. In an interesting contribution, Lumpkin and Dess (1996) added two more dimensions: autonomy and competitive aggressiveness. Miller's dimensions were essentially constructed based on ideas proposed in the literature, whereas Lumpkin and Dess's dimensions were built on the results of analyses of environmental effects (Covin and Wales, 2012). However, these two multidimensional approaches describe distinct constructs rather than contradictory viewpoints on the same construct (Covin and Miller, 2014). Because Miller's approach has been extensively examined in previous studies (Sciascia *et al.*, 2014), EO is measured in this study based on innovativeness, risk taking and proactiveness.

The first dimension, innovativeness, pertains to a firm's tendency to harness inventive processes and support new ideas that may enhance the firm's OP and strengthen its competitive position (Boso *et al.*, 2012; Miller and Friesen, 1982). Laforet (2011) indicated that innovativeness is the capacity to offer new ideas and has a significant influence on growth and profit by increasing product quality and reducing product cost. Avlonitis and Salavou (2007) found that entrepreneurial firms produce more unique products and have higher performance than passive firms. Risk taking pertains to a firm's inclination to allocate a sizable amount of its resources to risky projects (Al-Dhaafri and Al-Swidi, 2016; Boso *et al.*, 2012). In the presence of high competition and a severely challenging environment, fear of failure is likely to emerge among entrepreneurs (Anwar ul Haq *et al.*, 2014), and these perceived risks may represent the main performance obstacles of firms (Aljanabi, 2018; Laforet, 2011). Consequently, risk-avoidance attitudes may reduce entrepreneurs' confidence in their abilities and reduce the firm's level of performance (Aljanabi *et al.*, 2014; Alpkhan *et al.*, 2010). The third dimension, proactiveness, pertains to a firm's willingness to take control over competitors by reacting to customers' potential needs (Lumpkin and Dess, 1996; Miller and Friesen, 1982). Proactiveness can create capacities that allow firms to create unparalleled products far in advance of their competitors and customers' expectations (Aljanabi and Noor, 2015b; Li *et al.*, 2008). Hence, the tendency of entrepreneurial firms to engage in proactive activities allows them to exploit potential opportunities and shape their environments through superior performance rather than by merely reacting to environmental change (Altımay and Wang, 2011; Zahra, 2008).

Different studies have investigated the relationship between EO and firm performance. For example, Engelen *et al.* (2015) indicated that EO enhances the ability of firms to identify potential opportunities with substantial financial returns, target superior customers and gain first-initiative merits. Grinstein (2008) reported that EO values enhance a firm's ability

to renew its competencies and create new ones, capitalise on riskier opportunities, and encourage fresh thinking. However, other studies have not found support for the nexus between EO and firm performance (Hughes and Morgan, 2007; Kocak *et al.*, 2017; Messersmith and Wales, 2011). These mixed findings call for further research to verify this relationship in different contexts. Hence, the following hypothesis is postulated:

*H2.* EO has a positive and significant effect on a firm's OP.

#### *The mediating role of EO*

Culture has been studied as one of the most influential factors in the velocity and quality of a firm's entrepreneurial activities (Altinay, 2008; Todorovic and Ma, 2008). Consequently, a high EO level is positively associated with the creation of values through CD, which provides unique and valuable resources (Foil, 1991; Urban and Ratsimanetrimanana, 2015; Zahra *et al.*, 2004). It is also reasonable to suppose that entrepreneurs must cooperate with others to refine their ideas and reach their goals. Thus, entrepreneurship is more dependent on collectivist behaviour than individualistic behaviour (Kevin *et al.*, 2000; Zeffane, 2014). Within this context, studies have shown that a firm's innovativeness is positively influenced by the individualistic and uncertainty-avoidance dimensions (Fayolle *et al.*, 2010). In a similar vein, Aramand (2013) found positive relationships between some cultural dimensions (e.g. collectivism, feminism) and EO. However, other studies have obtained quite inconsistent results. For example, Covin and Miller (2014) found negative associations of proactiveness with individualism and of risk taking with uncertainty avoidance and power distance. Moreover, Roxas and Chadee (2012) found a negative relationship between uncertainty avoidance and EO. Crespo (2017) concluded that cultural dimensions are not a necessary antecedent for achieving entrepreneurship. Hence, this study hypothesises the following:

*H3.* CD has a positive and significant effect on a firm's EO.

Moreover, CD is an essential factor for high performance and can enhance a firm's competitive advantage if appropriately invested (Gupta, 2011; O'Regan and Ghobadian, 2004). The failure to achieve targeted performance through CD is a consequence of deficiencies in other strategic resources (Dimara *et al.*, 2004; Fayolle *et al.*, 2010). Culture alone is an imperfect resource for increasing firm performance and enhancing competitive advantage (Lumpkin and Dess, 1996; Zheng *et al.*, 2010). Strategic resources play an essential role in enhancing and complementing the effects of CD in providing a supportive environment for high performance.

The scholarly literature has empirically demonstrated the positive effect of EO on firm performance and proposed that differences in cultural backgrounds will impact EO (Roxas and Chadee, 2012; Runyan *et al.*, 2012). In the same vein, Fayolle *et al.* (2010) reported that culture acts as the conductor of performance, while entrepreneurial behaviour serves as the catalyst. The mediating role of EO as a strategic resource in the relationship between some cultural dimensions and performance was examined by Roxas and Chadee (2012), who indicated an indirect influence of these dimensions on firm performance through EO. Runyan *et al.* (2012) also provided guidance to researchers on modelling EO as a mediating variable in a cross-cultural context. Building on these arguments, CD can contribute many advantages and added value to a firm's performance if exploited properly with the support of EO. Therefore, the following hypothesis is postulated:

*H4.* EO mediates the relationship between CD and a firm's OP.

Based on the aforementioned theoretical arguments and the developed hypotheses, Figure 1 presents the research framework.

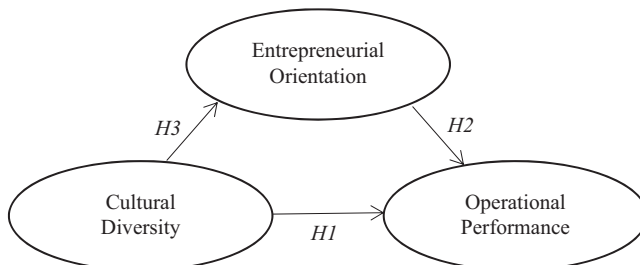
**Research methodology**

*Sampling design and data collection procedures*

The data were collected through a self-administered questionnaire distributed to managers of different nationalities operating foreign industrial firms listed in the tax directorate of KRI. These firms belonged to seven industrial activities: machines and equipment, engineering and construction, food, electric, non-metal, metal and extractive industries. The overall number of foreign industrial firms was 210. To select a representative number of firms in each industrial activity, stratified sampling was used. Initially, the population was split into subpopulations or strata depending on common characteristics among the given population elements. A random sample was subsequently drawn from each subpopulation using a simple random technique (Saunders *et al.*, 2009). Following Krejcie and Morgan (1970), a representative sample of 136 industrial firms from the targeted population was deemed appropriate. Therefore, a total of 136 questionnaires were delivered to the managers of the randomly selected firms from each industry. Only 77 firms provided usable questionnaires for statistical analysis, corresponding to a response rate of 57 per cent. The questionnaires were distributed from early April 2017 to the end of October 2017. Since some of the respondents were of Arabian origin, the back-to-back translation method was followed. First, the questionnaire was translated into Arabic based on Brislin’s (1970) method and then sent to two bilingual experts (English/ Arabic) to ensure that the texts of the two versions were consistent. Then, another bilingual expert translated the questionnaire back from the final Arabic version to English to eliminate differences. The results of a non-response bias test comparing the answers of early and late respondents revealed that the answers were free from data bias.

*Measures and pretesting*

The questionnaire included two parts. The first part of the questionnaire covered the respondents’ demographic information. The second part included items to evaluate the investigated variables. Seven items were used to measure firm OP in terms of cost, quality, flexibility, and delivery. These items were adapted from the scales of Naor *et al.* (2008) and Lertwongsatien and Ravichandran (2005). Naor *et al.* (2008) found that Cronbach’s  $\alpha$  was above 0.65 for this instrument, indicating adequate reliability. In addition, based on a review of the related literature, the CD scales of Hofstede (1994) and Wu (2006) were adopted. CD was operationalised to comprise thirty items divided into six dimensions: power distance, individualism vs collectivism, masculinity vs femininity, uncertainty avoidance, long-term vs short-term orientation and indulgence vs restraint. As a wide stream of the literature (Bearden *et al.*, 2006; Blodgett *et al.*, 2008; Bukauskas *et al.*, 2001; Elia *et al.*, 2019; Gupta, 2011; Yoo *et al.*, 2006) has adopted the reflective model to measure CD, this study adopted the reflective model rather than the formative model to measure the CD construct. The three dimensions of EO, namely, innovativeness, risk taking and proactiveness, were measured through 20 items adapted from the scales of Boso *et al.* (2012) and Miller and Friesen (1982). Aljanabi (2018) found that Cronbach’s  $\alpha$  was above 0.817 for this instrument, indicating



**Figure 1.**  
Research framework  
delineating cultural  
diversity and  
entrepreneurial  
orientation and impact  
on operational  
performance

adequate reliability. The questionnaire items were reshuffled to avoid bias resulting from the order of the items and/or survey fatigue. A seven-point Likert scale ranging from 1 for “strongly disagree” to 7 for “strongly agree” was adopted to assess the investigated variables. The validity and reliability of the measures were verified by conducting a pilot study with a set of 35 returned questionnaires. Tests of internal consistency and reliability indicated that all Cronbach’s  $\alpha$  values were above 0.7, as recommended by Hair *et al.* (2011).

### Statistical analysis and results

The study applied the partial least squares (PLS) approach (Hair *et al.*, 2011, 2014) to examine the theoretical model using Smart-PLS software version 3.2.0. PLS can transform complex models with various latent and manifest variables without the hassle of issues of estimation (Hair *et al.*, 2011; Sarstedt *et al.*, 2014), and thus PLS path modelling is considered methodologically beneficial compared to other modelling techniques (Astrachan *et al.*, 2014). The analysis of a PLS model includes two stages: estimation of the measurement model and testing of the structural model. The following sections explain the descriptive statistics and each of these two stages in more detail.

#### *Descriptive statistics*

Descriptive statistics was utilised to provide an overview of the examined constructs. The mean and standard deviation of OP were 5.02 and 1.11, respectively. For CD, the mean and standard deviation were 4.07 and 0.76, respectively. The mean of EO was 4.97, with a standard deviation of 0.94, as shown in Table I.

#### *Measurement model using the PLS approach*

*Convergent validity.* Convergent validity was assessed based on factor loadings, the average variance extracted (AVE) index and composite reliability (CR). The individual reliability of each item was assessed. All factor loadings fell within the recommended value of  $\geq 0.60$  (Hair *et al.*, 2011) except items OP1 and OP2 from the OP scale, IvC3, IvC5 and MvF1 from the CD scale, and Inno1, Inno2, Inno3 and Inno4 from the EO scale, which obtained very weak factor loadings and were consequently eliminated from the analysis. However, some scholars recommend not eliminating items if their values are  $> 0.4$  but  $< 0.7$  (Hair *et al.*, 2014). Figure 2 and Table II illustrate that all factor loadings were  $> 0.6$ . The statistical analysis also indicated that the outer model obtained results greater than the recommended values (Hair *et al.*, 2011) of  $CR > 0.7$  and  $AVE > 0.5$ , indicating sufficient convergent validity.

*Discriminant validity.* After confirming convergent validity, discriminant validity was estimated as suggested by Fornell and Larcker (1981). Discriminant validity measures the level of item differentiation among the investigated constructs. For this criterion, the diagonal items (the square roots of the AVE values) were compared with their correlations with the off-diagonal items. The results showed that the diagonal items were greater than their obverse items, as shown in Table III.

*Second-order construct analysis.* The repeated-indicators approach was applied to model the second-order latent variables, namely, the CD and EO constructs. As shown in Table IV, both variables were perfectly represented by their first-order constructs. These results

**Table I.**  
Descriptive statistics  
of the constructs

Variables	Mean	SD	Minimum	Maximum
Operational performance	5.02	1.11	1	7
Cultural diversity	4.07	0.76	1	7
Entrepreneurial orientation	4.97	0.94	1	7

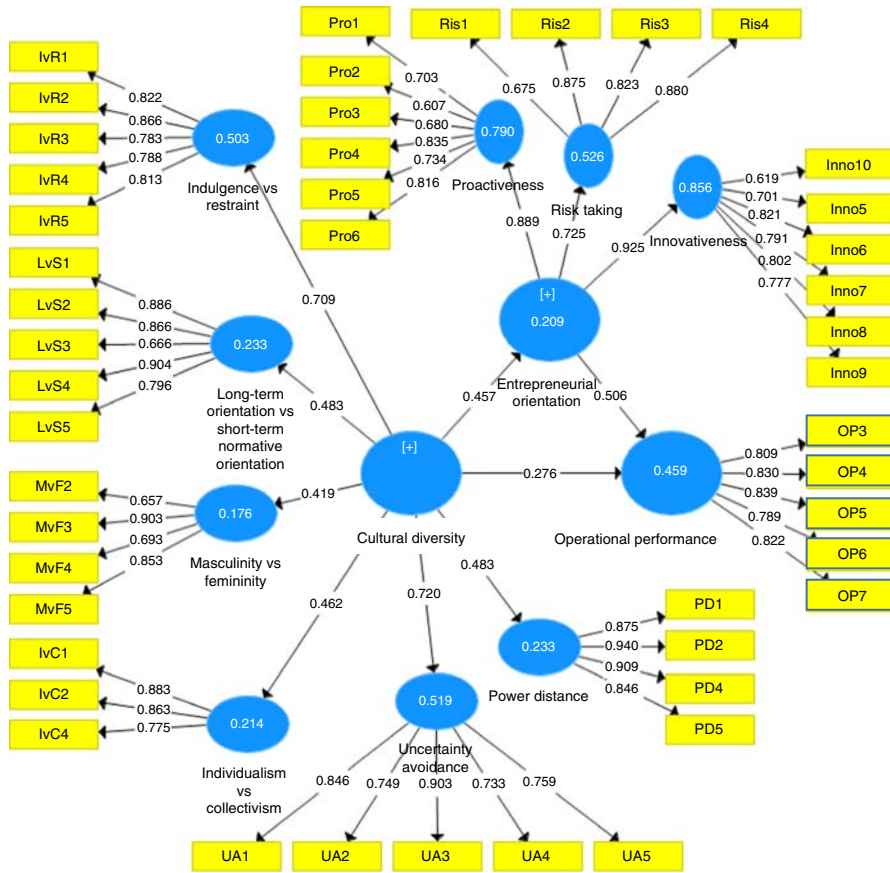


Figure 2. Measurement model

confirmed the appropriateness of the first-order constructs as discriminant and convergent (Byrne, 2010) and therefore able to conceptualise their second-order constructs (Hair *et al.*, 2014).

*Testing of the structural model and hypotheses*

To estimate the structural model’s predictive power, the  $R^2$  value was estimated. The  $R^2$  value indicates the amount of variance explained by the exogenous constructs (Hair *et al.*, 2014). Both CD and EO explained 45.9 per cent of the variance of firm OP. The hypothesised relationships were tested by estimating the  $t$ -statistics with re-sampling of 500 samples. As shown in Table V and Figure 3, CD was positively related to firm OP ( $\beta = 0.276, t = 2.769, p < 0.01$ ), thus supporting  $H1$ . EO was positively related to firm OP ( $\beta = 0.506, t = 5.126, p < 0.001$ ), providing support for  $H2$ . In addition, CD was positively related to EO ( $\beta = 0.457, t = 5.111, p < 0.001$ ), supporting  $H3$ .

The variance accounted for (VAF) was calculated to clarify the level of the indirect effect of CD on firm OP through the mediator variable EO according to the following formula:

$$VAF = \frac{(\text{path } a \times \text{path } b)}{(\text{path } a \times \text{path } b + \text{path } c')} \tag{1}$$

In this study, VAF was 0.45. According to Hair *et al.* (2014), this value is classified as partial mediation. Hence,  $H4$  is supported.



Variables	Items	Factor loadings	Cronbach's $\alpha$	Convergent validity	
				Composite reliability <sup>a</sup>	Average variance extracted <sup>b</sup>
Operational performance	OP3	0.809	0.878	0.910	0.670
	OP4	0.830			
	OP5	0.839			
	OP6	0.789			
	OP7	0.822			
Entrepreneurial orientation	Inno5	0.701	0.847	0.887	0.570
	Inno6	0.821			
	Inno7	0.791			
	Inno8	0.802			
	Inno9	0.777			
	Inno10	0.619	0.825	0.873	0.537
	Pro1	0.703			
	Pro2	0.607			
	Pro3	0.680			
	Pro4	0.835			
Cultural diversity	Pro5	0.734	0.832	0.889	0.668
	Pro6	0.816			
	Ris1	0.675			
	Ris2	0.875			
	Ris3	0.823			
	Ris4	0.880	0.792	0.879	0.708
	IvC1	0.883			
	IvC2	0.863			
	IvC4	0.775			
	IvR1	0.822			
	IvR2	0.866			
	IvR3	0.783			
	IvR4	0.788			
	IvR5	0.813			
	LvS1	0.886	0.885	0.915	0.685
LvS2	0.866				
LvS3	0.666				
LvS4	0.904				
LvS5	0.796				
MvF2	0.657	0.804	0.862	0.614	
MvF3	0.903				
MvF4	0.693				
MvF5	0.853				
PD1	0.875				0.915
PD2	0.940				
PD4	0.909				
PD5	0.846				
UA1	0.846	0.858	0.899	0.641	
UA2	0.749				
UA3	0.903				
UA4	0.733				
UA5	0.759				

**Table II.**  
Convergent validity  
estimation for  
endogenous and  
exogenous variables

**Notes:** <sup>a</sup>CR =  $(\sum \text{factor loading})^2 / (\sum \text{factor loading})^2 + \sum (\text{variance of error})$ ; <sup>b</sup>AVE =  $\sum (\text{factor loading})^2 / (\sum (\text{factor loading})^2 + \sum (\text{variance of error}))$

Variables	1	2	3	4	5	6	7	8	9	10
OP	0.818									
IvC	0.269	0.842								
IvR	0.393	0.226	0.815							
Inno	0.566	0.185	0.427	0.755						
LvS	0.296	0.171	0.245	0.228	0.828					
MvF	0.056	0.302	0.195	0.166	0.079	0.783				
PD	0.320	0.005	0.176	0.289	-0.079	0.064	0.893			
Pro	0.593	0.157	0.386	0.725	0.331	0.156	0.242	0.733		
Ris	0.426	0.146	0.083	0.558	0.024	0.056	0.097	0.457	0.817	
UA	0.278	0.199	0.264	0.155	0.195	0.177	0.375	0.245	0.186	0.801

**Notes:** OP, operational performance; IvC, individualism/collectivism; IvR, indulgence/restraint; Inno, innovativeness; LvS, long-term/short-term normative orientations; MvF, masculinity/femininity; PD, power distance; Pro, proactiveness; Ris, risk taking; UA, uncertainty avoidance

**Table III.** Discriminant validity and correlations

Second-order variable	First-order construct	Path coefficient	SE	t-value	p-value	R <sup>2</sup>
Cultural diversity	Individualism/collectivism	0.462**	0.143	3.235	0.001	0.214
	Indulgence /restraint	0.709***	0.098	7.213	0.000	0.503
	Long-term/short-term orientations	0.483**	0.147	3.280	0.001	0.233
	Masculinity/femininity	0.419**	0.131	3.198	0.001	0.176
	Power distance	0.483*	0.197	2.451	0.015	0.233
Entrepreneurial orientation	Uncertainty avoidance	0.720***	0.123	5.855	0.000	0.519
	Innovativeness	0.925***	0.023	40.703	0.000	0.856
	Proactiveness	0.889***	0.021	41.558	0.000	0.790
	Risk taking	0.725***	0.075	9.608	0.000	0.526

**Notes:** \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

**Table IV.** Second-order variables analysis

Hyp. no.	Hypothesis statement	Path coefficient	SE	t-value	p-value	Decision
H1	CD → OP	0.276**	0.100	2.769	0.006	Supported
H2	EO → OP	0.506***	0.099	5.126	0.000	Supported
H3	CD → EO	0.457***	0.089	5.111	0.000	Supported
H4	CD → EO → PP	0.237***	0.062	3.802	0.000	Supported

**Notes:** \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

**Table V.** Results of hypothesis testing

### Discussion and conclusions

This study proposes a conceptual model for investigating the effect of CD on firm OP and the mediating role of EO in this relationship. The outcomes demonstrate that CD can positively foster a firm's performance; however, when EO is added as a mediator, the direct influence of CD on firm OP decreases. This finding precisely indicates that CD indirectly influences firm OP by influencing EO. Thus, EO acts as a mediator through which CD enhances OP.

More importantly, the current results highlight that in order for a firm's culture to be a strategic resource that supports firm performance, the pillars of the RBV should be met: the culture should be valuable, unique, and not perfectly imitable (Foil, 1991; Zahra *et al.*, 2004). However, firm culture as a strategic resource does not solely influence firm OP directly;

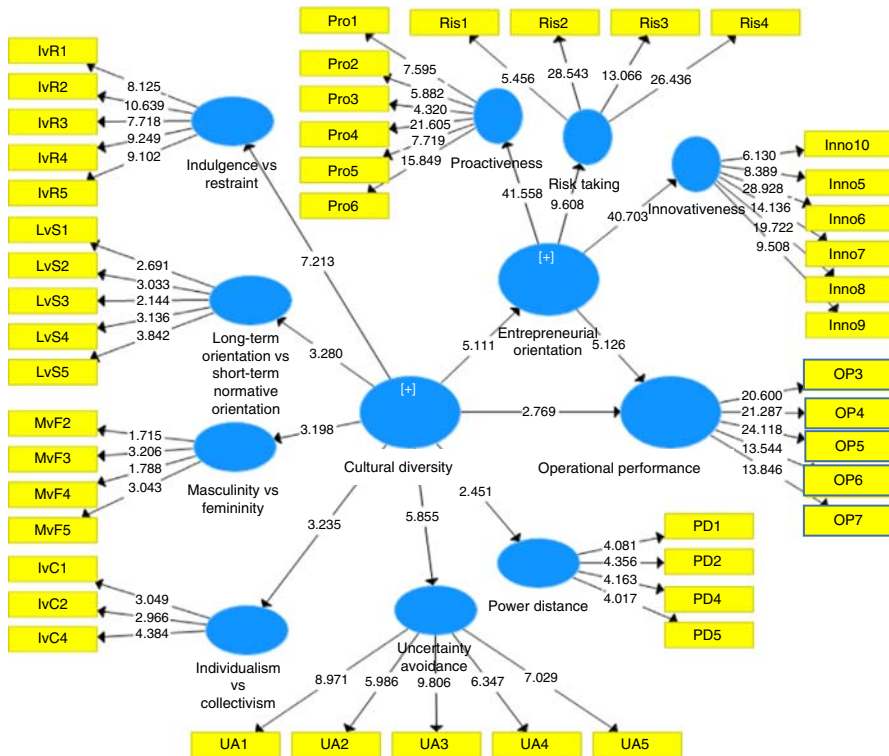


Figure 3.  
Structural model

rather, culture lends its influence through the formation of other strategic resources, such as the EO of the organisation's members (Fayolle *et al.*, 2010; Zheng *et al.*, 2010).

The findings of this study support suggestions in the related literature that CD can provide new capabilities that enhance a firm's OP and overcome resource limitations (Fayolle *et al.*, 2010; Kevin *et al.*, 2000; Richard *et al.*, 2004; Sonfield *et al.*, 2016; Zeffane, 2014) by bridging cultural boundaries and offering fundamental solutions for sophisticated problems (Jehn and Bezrukova, 2004; Pless and Maak, 2004; Todorovic and Ma, 2008). From an empirical viewpoint, this study suggests that managers of foreign firms should be aware of the essential role of CD. Hiring employees from different cultures and developing an organisational culture that supports CD can have significant effects in reinforcing firm OP. Managers of foreign firms should adopt strategic attitudes towards valuing diversity by encouraging members of different backgrounds to learn from each other to increase their knowledge and eliminate stereotypes, which will in turn lead to improved firm OP. In addition, this study provides empirical evidence supporting the arguments of Engelen *et al.* (2015) and Grinstein (2008) that EO enhances a firm's ability to explore more opportunities with genuine achievements. This finding contributes to the development of the literature by clarifying that entrepreneurially oriented firms have a greater ability to rejuvenate and create new resources, capitalise on more risky opportunities, and encourage fresh ideas. Managers also need to develop capabilities to cultivate an environment of entrepreneurship. The fear of failure may represent the main obstacle to performance, particularly for new and small foreign firms (Aljanabi, 2018; Barkema *et al.*, 1996; Laforet, 2011). Thus, if the members of an organisation have a high degree of EO and a supportive environment, they will readily adapt to environmental changes and be able to explore and exploit promising

opportunities (Shirokova *et al.*, 2016). Moreover, the results indicate a significant relationship between CD and EO. This result is consistent with Urban and Ratsimanetrimanana (2015), who indicated that the level of EO of a firm is positively associated with unique values created through CD. More significantly, the current results contribute to resolving the ongoing argument on whether CD threatens a firm's EO. Elia *et al.* (2019) reported that cultural differences hinder cognitive schemes and manager innovativeness, which, in turn, affect performance outcomes. Similarly, Covin and Miller (2014) found negative associations between cultural differences and managers' entrepreneurial behaviour. However, the results of the present study demonstrate that CD has a positive effect on firm EO. Thus, this study provides a further interpretation of this relationship beyond that provided by previous studies. Finally, the results show an indirect path through which CD can positively enhance firm OP. Specifically, CD indirectly influences firm OP by influencing EO. Therefore, EO is a mediator through which CD improves firm performance. This finding supports the suggestion in the literature of an indirect influence of cultural dimensions on firm performance through EO (Roxas and Chadee, 2012; Runyan *et al.*, 2012) and confirm that the extent to which a firm may rely on cultural differences to enhance their OP is influenced by the firm's EO. Firm EO tends to vary across different cultures (Urban and Ratsimanetrimanana, 2015), and firms with an appropriate EO can capitalise on perceived opportunities faster than their competitors. Accordingly, managers of foreign firms are recommended to focus on instituting a powerful EO and hiring employees based on cultural attributes to enhance firm performance. However, the managers of foreign firms must possess sufficient dexterity to meet these practical challenges, as previous research has shown that culture alone is an imperfect resource for increasing firm performance and enhancing competitive advantage (Fayolle *et al.*, 2010; Lumpkin and Dess, 1996).

### Theoretical implications

The model of this study is strongly anchored in scholarly works that consider CD and EO as strategic resources and their key implications for OP (Avlonitis and Salavou, 2007; Engelen *et al.*, 2015; Gambi *et al.*, 2015; Grinstein, 2008). Fayolle *et al.* (2010) argued, for example, that academic work focussing on the essential role of firm culture may elevate EO and facilitate firm performance. However, as stated by Engelen *et al.* (2015) and in line with the RBV, few studies have examined the antecedents of EO and how EO interacts with these variables to increase firm performance. With respect to previous studies linking EO and firm performance that underlined inconsistent results for this nexus (Hughes and Morgan, 2007; Messersmith and Wales, 2011), the main theoretical implications of this study are twofold. First, despite extensive examination of CD in light of Hofstede's dimensions, few studies have adopted the most recent six dimensions of Hofstede's model (Crespo, 2017; Lo *et al.*, 2017; Urban and Ratsimanetrimanana, 2015). Although some previous research presenting measures of CD (Bearden *et al.*, 2006; Blodgett *et al.*, 2008; Bukauskas *et al.*, 2001; Gupta, 2011; Yoo *et al.*, 2006), no study has attempted to measure the CD dimensions in one construct as proposed by Hofstede (Thien *et al.*, 2014) or the consequences of CD for other constructs (e.g. EO and OP). Finally, this study suggests that high levels of OP depend on the ability to not only hire employees from diverse cultures but also to leverage the effects of CD on OP. To this end, the results verify that EO as a strategic resource plays an essential role in the nexus between CD and OP (Foil, 1991; Urban and Ratsimanetrimanana, 2015; Zahra *et al.*, 2004).

### Managerial implications

The current study provides many insights for managers of industrial firms, especially those operating outside their home country. First, the findings strongly uphold the notion that managers should encourage hiring of employees from diverse cultures to support OP by

considering CD as an investment rather than a challenge. Second, the research framework in this study elucidates why firms should concentrate on their strategic resources infrastructure, particularly managerial behaviours (e.g. EO), to support OP. The results suggest that such resources directly influence firm performance and competitive advantage (Kocak *et al.*, 2017). Therefore, in managing firm OP, managers may want to present a variety of entrepreneurial behaviours, including proactiveness, innovativeness and risk taking, to enhance firm performance (Engelen *et al.*, 2015). Third, CD significantly affects firm OP directly and indirectly via EO. This robust role of CD has important consequences for practice. Managers of industrial firms may want to focus on CD to acquire new knowledge and enhance their entrepreneurial behaviour, especially as cultural factors cannot be separated from managers' entrepreneurial behaviour (Aramand, 2013).

### Limitations and future research directions

The findings of this study, although convergent with the theoretical discussion, are accompanied by some limitations. First, the cross-sectional design adopted for data collection in this study could lead to difficulties in determining the time sequence of the relationships among the investigated variables. Future studies should apply longitudinal research designs to obtain more evidence of causal relationships. Second, the conceptual model in this study examined the mechanism by which EO mediates the relationship between CD and OP. Another model with a well-selected explanatory variable would provide an interesting contribution and additional important results. For example, future studies should investigate the moderating effects of variables such as nationality differences and company size on the relationships among CD, EO and OP. Third, since this study was region-specific, future studies should focus on other regions and countries to obtain a greater understanding of the potential influences of regional and country contexts on the relationships depicted in the theoretical model. Investigating the influences of different political, economic, social and environmental contexts on the model relationships could be an interesting contribution. Finally, this study examined the overall effects of CD dimensions. Therefore, future studies should examine the individual effects of each dimension to verify the significant roles of each dimension in the proposed model.

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