



Entrepreneurial orientation (EO) and human resources outsourcing (HRO): A “HERO” combination for SME performance

Kristin C. Irwin^a, Karen M. Landay^a, Joshua R. Aaron^b, William C. McDowell^{c,*}, Louis D. Marino^a, Patrick R. Geho^b

^a University of Alabama, 361 Stadium Drive, Tuscaloosa, AL 35487, USA

^b Middle Tennessee State University, MTSU Box 75, Murfreesboro, TN 37132, USA

^c Bradley University, 1501 W. Bradley Ave., Peoria, IL 60625, USA

ARTICLE INFO

Keywords:

Human resources outsourcing
Entrepreneurial orientation
Knowledge-based view
SME

ABSTRACT

Small/medium enterprises (SMEs) constitute most firms in the United States; thus, the issues that impact their performance are significant for many stakeholders. A factor that enhances firm performance is a firm's adoption of an entrepreneurial orientation (EO). However, studies do not extensively examine the role of human resources, which are important for SMEs, in the EO/performance relationship. The current study extends the knowledge-based view (KBV) of the firm, which focuses on knowledge generation and application as a source of competitive advantage. Specifically, we examine the impact on SME performance of an EO's interactions with human resources outsourcing (HRO) and strategic human capital (HC). The results show that strategic HC moderates the relationship between EO and SME performance; further, the use of HRO is important for SMEs that have a competitive advantage based on HC. We also test the interactions of HC and EO, and provide theoretical and practical implications.

1. Introduction

According to the Census Bureau of the United States, 99.7% of U.S. firms employ fewer than 500 workers (Small Business and Entrepreneurship Council, 2016). Further, of the 22.9 million net new jobs created from 1993 to 2013, 63% are in small businesses (Small Business Administration Office of Advocacy, 2014). Thus, the performance of these small- and medium-sized enterprises (SMEs) is greatly important to a variety of stakeholders. A factor that enhances SMEs' performance is firms' entrepreneurial orientation (EO). EO is characterized by firm behavior that involves taking risks and being innovative and proactive (Covin & Slevin, 1989, 1991). It is also a proven predictor of firm performance (e.g., Wiklund & Shepherd, 2003). However, given the complex relationship of SMEs' resource investments and firm performance, it is likely that additional factors beyond EO are at work.

Despite the acknowledgment that (1) human resources (HR) management is vital for small and entrepreneurial firms (Bendickson, Muldoon, Ligouri, & Midgett, 2017) and that (2) SMEs often rely on external parties for HR services (e.g., Klaas, 2003), few studies explore the combination of EO and HR practices. Given that resource

insufficiency (Dada & Fogg, 2016; Klaas, McClendon, & Gainey, 2000) often characterizes SMEs, the interaction of EO, which is a resource-intensive strategic posture (Covin & Slevin, 1991), with human capital (HC), which is a key resource in small firms (Coder, Peake, & Spiller, 2017; Lepak & Snell, 2002), deserves additional attention. A broad definition of HC is as “a unit-level resource that is created from the emergence of individuals' knowledge, skills, abilities, and other characteristics” (Ployhart & Moliterno, 2011, p. 128). In order to enhance SMEs' focus on innovation and proactiveness for competitive advantage, we offer a new insight: The outsourcing of traditional HR functions (i.e., recruitment and training) can act as a lever to strengthen the relationship between EO and firm performance in SMEs.

The current study uses the knowledge-based view (KBV) of the firm (Grant, 1996) to examine the relationships between HR, EO, strategic HC, and firm performance. In addressing this under-researched area, we make four contributions to the literature. First, to the best of our knowledge, no other study examines the effects of outsourcing specific HR functions, as opposed to simply the effects of general HR management practices, on SME performance (e.g., Hayton, 2003). Second, although HC has a strong relationship with firm performance overall (Croom, Todd, Combs, Woehr, & Ketchen Jr., 2011), empirical testing of

* Corresponding author.

E-mail addresses: kirwin1@crimson.ua.edu (K.C. Irwin), kmlanday@crimson.ua.edu (K.M. Landay), joshua.aaron@mtsu.edu (J.R. Aaron), wmcowell@bradley.edu (W.C. McDowell), lmario@cba.ua.edu (L.D. Marino), patrick.geho@mtsu.edu (P.R. Geho).

<https://doi.org/10.1016/j.jbusres.2018.05.016>

Received 4 September 2017; Received in revised form 8 May 2018; Accepted 11 May 2018
0148-2963/ © 2018 Elsevier Inc. All rights reserved.

HC as a competitive advantage is somewhat limited, and even more so for SMEs. Thus, we add to the understanding of the effects of HC strategy on SMEs. Third, we expand the EO literature by showing that specific human resources outsourcing (HRO) enhances the EO–SME performance relationship, with strategic HC acting as an influencer. Finally, in a departure from much of the EO literature (with the exceptions of Dada & Fogg, 2016 and Wiklund & Shepherd, 2003), we utilize the KBV as a lens to examine factors that impact SMEs' firm performance.

2. Theoretical development and literature review

2.1. Knowledge-based view

The KBV builds on the resource-based view (RBV) articulated by Barney (1991) and conceptualizes “the firm as an institution for knowledge application” (Grant, 1996, p. 113). Within this perspective, knowledge is a firm's source of competitive advantage (Spender & Grant, 1996). Specifically, the generation of new knowledge rather than the exploitation of existing knowledge (Nickerson & Zenger, 2004) contributes to a firm's competitive advantage. Grant (1996) suggests that instead of viewing knowledge and knowledge creation as organization-level activities, we consider the individuals who are involved. In essence, the KBV is about how individuals create, acquire, protect, and transfer knowledge in support of an organization's goals.

Entrepreneurial firms seek to leverage internal knowledge and capabilities as strategic advantages to differentiate themselves from the competition (Wiklund & Shepherd, 2003). Additionally, firms must pay attention to the knowledge-creation process in order to meet performance objectives when applying EO in dynamic, competitive environments (Li, Huang, & Tsai, 2009); thus, organizations actively engage in activities to increase knowledge creation (Prado-Gascó, Pardo, & Pérez-Campos, 2017). Freeing up resources, such as financial capital or HC, enables a firm to focus on its products and services. Hence, SMEs that have high levels of EO but are resource constrained can benefit from HRO. Alternatively, SMEs that have low levels of EO and are independent of resource constraints see fewer benefits from HRO, given such firms lack of focus on innovation and proactiveness.

Research supports the appeal of HRO for SMEs. Kreiser (2011, p. 1033) states, “the higher the firm's EO, the more willing and able it is to acquire existing knowledge-based resources from its external environment.” Dada and Fogg (2016) elaborate on this by showing that firm engagement moderates the relationship between EO and organizational learning. We build on this foundation to suggest that sourcing non-core functions such as recruitment and training (i.e., learning) externally is associated with higher levels of EO and subsequently improved firm performance.

2.2. Entrepreneurial orientation and SMEs

EO is commonly defined as a pattern of entrepreneurial behaviors or postures in which firms regularly engage. Further, the dimensions of risk taking, innovation, and proactive behavior characterize this pattern (Covin & Slevin, 1989, 1991; Kilenthong, Hultman, & Hills, 2016). Such a definition originates from the work of Mintzberg (1973) and Khandwalla (1976/1977) regarding managerial disposition; however, other scholars have expanded it to include innovative strategies based on executive goals and temperaments (Miller & Friesen, 1982). Some scholars also discuss EO as an organizational-level phenomenon (Lumpkin & Dess, 2001) and a multi-dimensional domain-focused construct that includes autonomy and competitive aggressiveness (Lumpkin & Dess, 1996). Organizations benefit from high levels of EO because it provides the ability to discover new opportunities to create competitive advantage (Pett & Wolff, 2016; Wiklund & Shepherd, 2005).

Extensive research on SMEs validates the positive relationship of EO

with firm performance (e.g., Hayton, 2003), shown the nonlinear impacts of EO dimensions (Kreiser, Marino, Kuratko, & Weaver, 2013), and illustrated the importance of organizational learning (Dada & Fogg, 2016) and the knowledge-creation process (Pett & Wolff, 2016). Thus, aligned with prior research, we hypothesize the following.

H1. An SME's EO has a positive relationship with firm performance.

2.3. Human resources outsourcing

Despite substantial interest from stakeholders, the HRO literature remains underdeveloped. The literature often examines HR as a whole, thereby making it difficult to consider the effects of various functions. Empirical HRO studies are generally in one of two categories: (1) those that examine HRO antecedents (i.e., the factors that lead a firm to decide to use HRO) and (2) those that examine HRO outcomes (i.e., the outcomes that change because of HRO use). In addition to firm performance, other HRO outcomes include variables such as perceived HRO benefits (Klaas, McClendon, & Gainey, 1999), perceived HR effectiveness (Shih & Chiang, 2011), and firm growth (Arbaugh, 2003). In order to expand our understanding of the role of HRO knowledge in organizations, we examine traditional HR functions such as recruitment and training because they lie in the middle ground between transactional (e.g., payroll) and strategic (e.g., long-term planning; Lepak, Bartol, & Erhardt, 2005) functions.

First, regarding the antecedents of the outsourcing of functions such as training and recruitment, Klaas, McClendon, and Gainey (2001) find that this outsourcing relates to the organizational characteristics of HR's strategic involvement, promotional opportunities, and pay levels. However, the extent to which firms outsource HR functions is context specific. In a sample of Vietnamese firms, Nguyen and Chang (2017) classify recruitment and training as non-core activities and find that increased emphasis on HR cost reduction results in increased outsourcing of non-core activities. Specific to recruitment, Dasborough and Sue-Chan (2002) find that mimetic forces, trust in a third-party recruitment agency, and a need to reduce internal personnel are associated with an external party performing more recruitment activities. Ordanini and Silvestri (2008) establish that a greater knowledge focus within a firm relates negatively to the number of outsourced recruitment activities. Thus, given the variety of antecedents, it is difficult to draw any conclusions from this group of studies.

Second, regarding outcomes, the findings about HRO's effects on firm performance are mixed. The use of objective and subjective measures in studies makes comparisons difficult (e.g., Salimath, Cullen, & Umesh, 2008). In Australia, Sheehan and Cooper (2011) use performance outcomes such as perceived organizational effectiveness and perceived financial performance. The authors find that firm size moderates the effect of HRO on performance. More specifically, they discover a positive relationship for small firms and a negative relationship for large firms. In an American sample, Salimath et al. (2008) use financial measures of firm performance and determine that HRO is a positive predictor. Thus, given the lack of commonality among outcome measures, it is challenging to generalize about HRO's effects on firm performance.

2.4. Entrepreneurial orientation and human resources outsourcing

HRO is currently an understudied area with limited research focusing on SMEs and EO. However, a few studies indicate that HR and HR-related functions can impact the relationship between EO and firm performance. For example, Grünhagen, Wollan, Dada, and Watson (2014) find that HR operational autonomy has a positive moderating effect on the EO–performance relationship in franchise systems in the UK. Additionally, Messersmith and Wales (2011) discover that the practices and philosophies of human resources can impact the relationship between EO and sales growth in young firms.

Building on these findings, we propose that for SMEs with an EO, namely those characterized by higher levels of risk taking, innovation, and proactiveness, the use of HRO can provide them with the slack resources necessary to focus energy on innovation rather than value chain development (Salimath et al., 2008). For example, the relationship between EO and innovational performance is stronger among firms that use strategic HR management practices (Tang, Chen, & Jin, 2015). Findings suggest that HRO relates positively to SME performance (Salimath et al., 2008). However, studies do not address the specific effects of recruitment and training because they use only HRO composite measures (i.e., the studies do not separate outsourcing into specific HR functions). Indeed, a recent study that articulates the difficulties of outsourcing decisions calls for more research on variables such as EO, the level of resource dependence, and other related factors in the context of SMEs (Halim, Ahmad, Ho, & Ramayah, 2017).

HC management “requires both careful research and discipline” (Hayton, 2003, p. 378). Thus, considering the limited resource capacity of SMEs (Wiklund & Shepherd, 2005), outsourcing HR practices may decrease costs (Klaas et al., 2000) and free resources to focus on strategic knowledge-based innovation for a firm's products or services. Klaas et al. (2000) outline that HR activities require time and are complex; hence, because of size limitations, SMEs choose to outsource such activities. Interestingly, “innovator” firms, which are innovative, young, and small in size compared with other firms, are most likely to benefit from outsourcing in terms of firm performance after “giant” firms (i.e., large firms). In this regard, the benefits of HRO relate to the “innovator” firms' size because such firms are “smaller and younger and are less likely to have developed all the value-chain capabilities to maximize their returns from innovation” (Salimath et al., 2008, p. 374). Further, in one example in the information technology space, SMEs lost skills because of general outsourcing and faced silos of knowledge due to the size of the organizations and the specialization of resources (Li, Liu, Belitski, Ghobadian, & O'Regan, 2016). Thus, the implications of the choice to outsource certain HR functions such as training and recruitment may be preferable to outsourcing the specialized functions that SMEs require for product or service growth.

SMEs that have high levels of EO are associated with higher degrees of risk-taking activities (Covin & Slevin, 1989; Miller & Friesen, 1982). However, higher degrees of risk-taking are in turn associated with a positive effect on innovation speed (Shan, Song, & Ju, 2016). Shan et al. (2016) point out that high levels of resource commitment have a supportive effect on product teams, thus leading to an increase in innovation. The decision for SMEs to utilize HRO is also associated with some risk-taking. For example, research describes various risks for firms that outsource HR functions, while also showing how firms that choose to outsource have a higher tolerance of risk or are better able to mitigate risk (Klaas et al., 1999). Thus, SMEs with high levels of EO (i.e., risk-taking behaviors) that choose to utilize HRO may also benefit from increased product-innovation speed, thus positively impacting firm performance (Shan et al., 2016).

Additionally, research on RBV finds that firms perform better by focusing on core competencies and outsourcing other activities (Josefy, Kuban, Ireland, & Hitt, 2015). Javalgi and Todd (2011, p. 1005) state that outsourcing is an example of a successful management of resources that can “represent a direct application of firm-level capabilities as envisioned by RBV.” We extend this reasoning by utilizing the KBV because the use of HRO can address SMEs' need for specialized knowledge that focuses on expanding their products' capabilities. Thus, innovative, risk-taking, and proactive SMEs may choose to outsource areas in which they do not specialize, such as recruitment and training, in order to build capacity to focus on core growth areas.

Thus, we argue that firms with higher levels of EO choose to outsource their non-core functions such as recruitment and training in order to focus on specialized functions such as product innovation. We expect that SMEs that are able to outsource these functions will demonstrate higher firm performance overall. Thus, we hypothesize the

following.

H2. An SME's level of HRO mediates the relationship between the SME's level of EO and firm performance, such that an SME that has a high level of EO will choose to outsource training and recruitment, a decision that will relate positively to firm performance.

2.5. Strategic human capital competitive advantage

Partly because of the inherent difficulty of operationalizing the concept, empirical studies on strategic HC are limited (Godfrey & Hill, 1995). Many scholars have turned to secondary data to overcome this hurdle. Pennings, Lee, and Van Witteloostuijn (1998) examine archival data for 1851 Dutch accounting firms from 1880 to 1990 and find that firm-specific HC and social capital relate negatively to firm dissolution. Other studies use qualitative methods to take a more in-depth approach. Hatch and Dyer (2004) investigate the international semiconductor industry and find, through interviews and surveys, that firm-specific HC relates positively to learning by doing, which, in turn, relates positively to firm performance. Lepak and Snell (2002) use a survey method and find that HC uniqueness (i.e., the HC that is particular to a specific firm) is at its highest level for workers in a knowledge-based employment context where, in accordance with Lepak and Snell's (1999) HR architecture, HC is both valuable and unique. Crook et al. (2011) conduct a meta-analysis examining the relationship between HC and firm performance, and find a strong positive relationship ($r_c = 0.21$). Thus, we hypothesize the following.

H3a. The extent to which HC is a source of an SME's competitive advantage positively moderates the relationship between the SME's EO and firm performance.

In addition, strategic HC more than likely plays a role in the relationship between HRO and firm performance. Although scholars argue that outsourcing non-core functions has a positive effect on firm performance (e.g., Lepak & Snell, 1998), this effect may depend on the context. Pfeffer (1994, 1995) notes that factors such as industry, product, and process improvement have less effect on a firm's competitive advantage than HC. Hence, the selection of qualified employees together with sufficient training and development are vital factors for a firm's success (Pfeffer, 1994, 1995). Thus, if a firm relies significantly on HC as a source of competitive advantage, it is likely that outsourcing recruitment and training activities will decrease performance instead of increasing it. In other words, the benefits of using HRO will be outweighed by the damaging effects to the firm's competitive advantage. Thus, we hypothesize the following.

H3b. The extent to which HC is a source of an SME's competitive advantage negatively moderates the relationship between the SME's level of HRO (recruitment and training) and firm performance.

3. Method

3.1. Sample

We focus primarily on questionnaire survey data for several reasons. First, managers' perceptions of EO and firm performance can provide information in the EO model, such as causal understanding, that is more useful than objective measures, such as resource allocations (Lyon, Lumpkin, & Dess, 2000). Second, this approach is helpful given that the target of the research is SMEs because they are not publicly traded and are generally reluctant to disclose financial information (Lyon et al., 2000). Finally, we are able to gather perceptual data from individuals within organizations that can best provide accurate information. We limit the survey to SME leaders with the titles of Director, Vice President, Chief Information Officer, and Chief Executive Officer. The survey dates from 2017. The participants are 100 U.S. SMEs with 50 to

500 employees. Initially, we employ a pilot study (N = 30) to confirm constructs and relationships. We ensure that all participants of the pilot and main surveys are aware of ethical considerations.

3.2. Dependent variable: firm performance

Firm performance is measured subjectively with a question that asks firms to compare themselves in relation to their competitors. Participants reply using a five-point scale ranging from “much worse than our competitors” to “much better than our competitors” across five dimensions: sales growth, revenue growth, growth in number of employees, net profit margin, and new products/services introduced (Wiklund & Shepherd, 2003). This measure aligns with prior SME–EO research (Kreiser et al., 2013), such that regardless of whether the measures are objective or perceptual, the EO–performance relationship shows similar results (Rauch, Wiklund, Lumpkin, & Frese, 2009).

3.3. Independent, moderating, and mediating variables

We measure *EO* with a nine-item scale from Covin and Slevin (1989) that assesses the EO factor across three dimensions, innovation, proactiveness, and risk-taking, using a seven-point Likert scale (1 denotes strongly disagree; 7 denotes strongly agree). With regard to *HRO*, we ask SMEs “To what extent the statement corresponds to your company (1 – Nothing outsourced; 7 – All HR outsourced).” Additionally, we determine the level of outsourced HR recruitment and training activities by using a modified measure from Klaas et al. (1999) with recruitment stages from Wehner, Giardini, and Kabst (2012) (recruitment—job advertisement; recruitment—confirmation of receipt and preselection; recruitment—telephone interview; recruitment—in-person job interview) and training stages (training—design; training—delivery; training—evaluation). The related question asks, “To which extent do the statements correspond to your company’s use of outsourcing in the Human Resources function (1 – Nothing outsourced; 7 – All function outsourced)” using a seven-point Likert scale.

HC is difficult to measure empirically (Godfrey & Hill, 1995). However, we use Lepak and Snell’s (2002) measures of *HC uniqueness* (12 items) and *HC strategic value* (10 items), both of which we score on seven-point Likert scales (1 denotes strongly disagree; 7 denotes strongly agree). Sample items are, respectively, “Individuals ... have skills that create customer value” and “Individuals...have skills that are unique to our organization.”

We measure five control variables that can impact the relationship between EO and firm performance. These variables are *firm size*, *firm age*, *industry*, *founder status*, and *environmental uncertainty*. We measure *firm size* by the number of employees and *firm age* by asking when a firm was established. We also ask each respondent for a firm’s *industry* and determine *founder status* by inquiring whether a respondent is a firm’s founding member and has any start-up experience. We use the Miller and Friesen (1982) scale for a subjective measure of environmental uncertainty. This measure has five items, such as “The production/service technology changes often and in a major way.” The extent to which each item corresponds to a firm is assessed on a seven-point Likert scale (1 denotes absolutely does not correspond to; 7 denotes absolutely corresponds).

4. Results and discussion

We examine the data from the initial pilot study utilizing SPSS software for exploratory factor analysis. The results confirm the loadings of all variables on the appropriate factor, including EO, firm performance, and HC values and uniqueness. Initial multiple regression analysis and use of the Hayes Process (Hayes, 2013) on the pilot data also shows a positive, significant relationship between EO and firm performance ($R^2 = 0.57$, $p = 0.04$). This result provides initial support for Hypothesis 1 (EO positively relates to SMEs’ firm performance).

Table 1
Factor loadings from exploratory factor analysis.

Variable	HC values	HC uniqueness	EO	Performance
HCV_1	0.80			
HCV_2	0.85			
HCV_3	0.93			
HCV_4	0.95			
HCU_1		0.67		
HCU_2		0.87		
HCU_3		0.60		
HCU_4		0.73		
HCU_5		0.83		
HCU_6		0.88		
HCU_7		0.70		
EO_1			0.66	
EO_2			0.59	
EO_3			0.48	
EO_4			0.77	
EO_5			0.75	
EO_6			0.56	
EO_7			0.73	
EO_8			0.73	
Perf_1				0.86
Perf_2				0.81
Perf_3				0.76
Perf_4				0.83
Perf_5				0.77

Because the pilot study confirms our initial framework, we implement the online questionnaire. We first conduct exploratory factor analysis. As Table 1 shows, most loadings are 0.70 or higher and do not cross-load on the other included measures. After removing the lower loadings, strategic HC includes a two-factor extraction with four items for HC values ($\alpha = 0.93$) and seven items for HC uniqueness ($\alpha = 0.90$). With regard to EO ($\alpha = 0.88$) and firm performance ($\alpha = 0.91$), all items map onto one factor. Prior to running the subsequent models, we create averages for EO, HC, HRO recruitment, HRO training, and firm performance. We include these averages in the descriptive statistics and a correlation table (see Table 2).

We use multiple regression and the Hayes Process with SPSS software for our analyses (Hayes, 2013). With regard to Model 1, we include all control variables for a baseline model. The control variables are *CEO founder status*, *SME age*, *SME size* (total number of employees), *industry*, and *environmental uncertainty*. With regard to Model 2, we first use SPSS multiple regression to confirm the direct relationship between EO and firm performance and the mediating relationship of HRO. In terms of Hypothesis 1, which predicts a positive relationship between EO and SME performance, we find a significant, positive relationship ($R^2 = 0.25$, $b_{EO} = 0.51$, $SE = 0.09$, $CI(0.33, 0.69)$, $p < 0.000$) as shown in Table 3.

In order to test Hypothesis 2, which predicts the mediating relationship of HRO, we use Model 4 of the Hayes Process (Hayes, 2013) and find partial support for limited mediation between HRO and firm performance. Partial support for the indirect effect of HRO on firm performance ($b = 0.05$, 95% BCa CI [0.01, 0.14]) represents a relatively small effect ($\kappa^2 = 0.05$, 95% BCa CI [0.01, 0.13], $p = 0.07$). Although p is not < 0.05 , none of the confidence intervals contains zero, “so there is compelling evidence that there is a small but meaningful mediation effect” (Field, 2013, p. 417). Given the non-significance of the control variables in the model, we run all the models both with and without controls. As shown in Table 3, we find slight differences in favor of the HRO relationship without the controls; thus, we exclude the controls for the remaining models. Fig. 1 presents these findings.

We use Model 15 of the Hayes Process (Hayes, 2013) to test the proposed model in Fig. 1 comprehensively. We include the independent variable X (EO), the dependent variable Y (firm performance), the mediating variable M (use of HRO and the subsequent testing of the specific use of HRO training and HRO recruiting), and the moderating

Table 2
Descriptive statistics and correlation table.

	M	SD	1	2	3	4	5	6	7	8	9	10
EO Avg	3.84	1.08										
Perf Avg	5.18	1.09	0.48***									
HRO Use	2.95	2.03	0.28**	0.29**								
HC U Avg	4.83	1.22	0.56***	0.43***	0.22*							
SME Size	184.14	136.62	-0.03	0.01	-0.09	0.14						
SME Age	43.32	36.13	0.28***	0.22*	0.33	0.01	-0.21*					
Industry	5.86	2.46	-0.08	0.07	-0.13	0.10	0.16	-0.01				
CEO Foun	1.53	0.50	-0.18*	-0.09	-0.09*	-0.14	0.17	-0.41***	0.15			
Dyn Avg	4.32	1.44	0.49***	0.20**	0.27**	0.42***	0.03	0.11	-0.14	0.00		
Mun Avg	3.72	1.79	0.43***	0.08	0.32**	0.12	-0.03	0.24*	-0.24*	-0.09	0.61***	
Comp Avg	4.31	1.59	0.42***	0.18*	0.22*	0.21*	0.01	0.07	-0.17	-0.12	0.69***	0.65***

Notes: N = 88.

* p < 0.05.

** p < 0.01.

*** p < 0.001.

Table 3
Regression models for firm performance.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CEO founder status	-0.01	0.09	0.05			
SE	(0.26)	(0.24)	(0.24)			
SME age	-0.01	-0.00	-0.00			
SE	(0.01)	(0.00)	(0.01)			
SME size (number employees)	0.00	0.00	0.00			
SE	(0.00)	(0.00)	(0.00)			
Industry	0.04	0.03	0.04			
SE	(0.05)	(0.05)	(0.05)			
Environmental uncertainty (munificence)	0.13	0.00	-0.01			
SE	(0.12)	(0.11)	(0.12)			
Environmental uncertainty (dynamism)	-0.11	-0.14	-0.16			
SE	(0.09)	(0.08)	(0.12)			
Environmental uncertainty (complexity)	0.12	0.10	0.10			
SE	(0.11)	(0.10)	(0.11)			
Entrepreneurial orientation		0.48***	0.46***	0.51***	0.45***	0.32*
SE		(0.12)	(0.12)	(0.09)	(0.12)	(0.13)
Human resource outsourcing			0.11*		0.10*	0.087*
SE			(0.05)		(0.04)	(0.04)
HC						0.21†
SE						(0.11)
EO × HRO						-0.00
SE						(0.04)
EO × HC						0.20*
SE						(0.09)
R ²	0.11***	0.27***	0.31***	0.25***	0.25***	0.34***
ΔR ²		0.16***				
F			4.34***	31.92***	20.58***	10.84***
ΔF	1.45	17.14**			10.32†	
N	88	88	88	98	98	98

† p < 0.10.

* p < 0.05.

*** p < 0.001.

variable V (HC uniqueness). Table 3 shows that the results support Hypothesis 3a, which predicts that HC moderates the relationship between EO and firm performance (R² = 0.34, F = 10.84, df₁ = 5, df₂ = 92, p = 0.000, where b_{HRO} = 0.09, p < 0.05, b_{EO} = 0.32, p < 0.05, and b_{human capital × EO} = 0.20, p < 0.05.) However, the

results do not support Hypothesis 3b, which predicts that HC negatively moderates HRO's effect on firm performance (b_{human capital × HRO} = -0.01, p > 0.05). We replicate this analytical process for the specific use of HRO recruitment and training activities. The results do not differ from the HRO general measure.

In order to further understand the interactions of HRO and HC on the EO–firm performance relationship, we use Model 3 of the Hayes Process (Hayes, 2013) to present the different levels of effects given low, medium, and high use of HC and HRO. Our results show that the high use of HC as a competitive advantage has different effects in accordance with the level of HRO. The greatest effect occurs with high HC and low HRO, while at a high level of HRO all HC levels have the same effect on the EO–firm performance relationship. This finding supports our proposal that for SMEs who use HC as a competitive advantage, a decrease in firm performance results if the SMEs use HRO.

5. Conclusions

We examine the interaction of EO, HRO, and HC on SME performance. We extend the KBV by empirically testing the role of strategic HC and the use of HRO in SMEs; we then explain why SMEs that face resource constraints need to consider carefully whether and/or how to use HRO. We find several results of note. First, we confirm the positive relationship between EO and SME firm performance. Second, we find only limited support for HRO mediating this relationship. It is possible that SMEs are concerned about the relational risks associated with HRO and are only willing to outsource HR functions that do not expose them to a substantial loss should the outsourcing partners act opportunistically. Thus, consistent with the KBV, those elements of HC management and development that provide SMEs with a competitive advantage should be managed internally, while those of less strategic importance could be outsourced to provide resources to alleviate the resource insufficiency typically associated with SMEs. This explanation could also partially account for the lack of a negative moderation of HC as a competitive advantage on the relationship between HRO and firm performance. Finally, we find that HC as a competitive advantage moderates the EO–SME firm performance relationship but does not moderate the HRO–SME firm performance relationship.

5.1. Limitations and future research

Our study is not without limitations. As noted previously, given the nature of SMEs, the ability to assess objective firm performance is difficult because firms are unwilling to share financial information. Thus, our results are limited to a subjective firm performance measure. While not ideal, this approach aligns with prior SME research. Additionally, given that our survey is cross-sectional, we cannot determine any

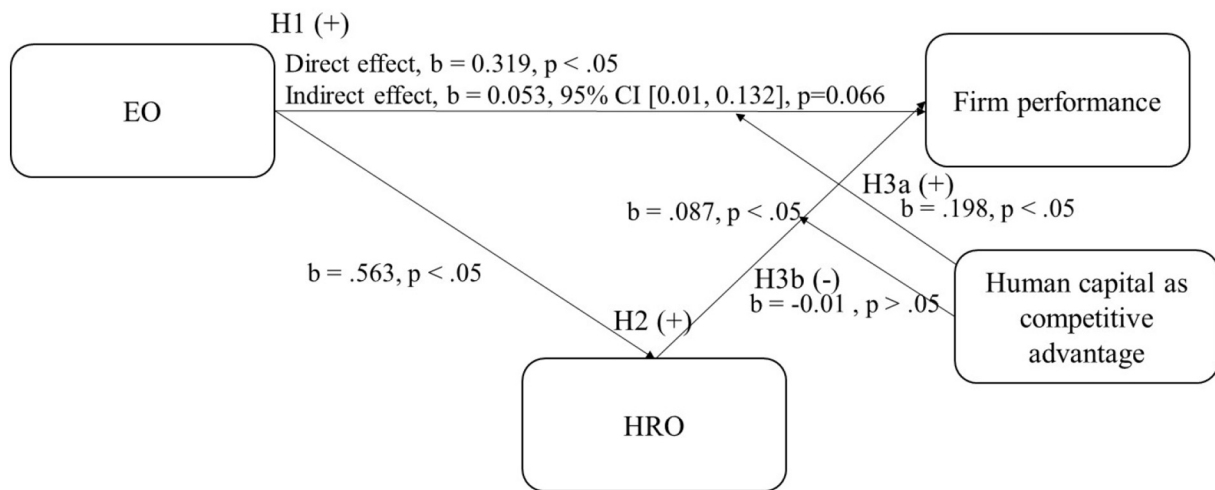


Fig. 1. Model of relationships and findings.

Notes: EO is entrepreneurial orientation, HRO is human resource outsourcing, and H is hypothesis.

causation; indeed, our results are subject to those SMEs who responded. Future studies could assess SMEs' use of HRO over time. In this regard, they could investigate whether HRO helps, in the longer term, to accomplish the goal of resource allocation of more core functions. Further, future studies could consider the configurational effects of EO, HR strategies, and the external environment. The partial support for Hypothesis 2 suggests that the relationships examined here are perhaps more complex than a model that uses the external environment as a control can reveal and that, consistent with Rauch et al. (2009), a configurational model is likely to be more illuminating.

Establishing an empirical relationship between HRO, EO, and firm performance brings HRO to the forefront of HR issues in the study of entrepreneurial SMEs. Future research could examine the impact of HRO as an SME grows. Further, our study adds to the literature on HC, which has limited research within the context of HRO. However, the relationships between aspects of HC's competitive advantage and the outsourcing of various HR functions need greater consideration to determine the full causal relationships for outsourcing the training and recruitment functions. We initiate this exploration by applying the KBV in an empirical context and providing an important test of this still-nascent theory.

5.2. Implications

Our study offers several practical implications for managers of SMEs. By gaining an understanding of how the outsourcing of training and recruitment affects the EO–firm performance relationship, managers will be able to examine their firms' situations and determine whether outsourcing is the right choice. For instance, if managers, as is common, seek cost savings via HRO, an understanding of their firms' EO may help to make that decision. Additionally, by examining HC's role as a competitive advantage, our results offer managers an insight into how the decision to use HRO may impact their firms' performance based on the extent to which they depend on HC. For instance, firms specializing in professional services that use HC as a competitive advantage may rethink their decision to outsource (e.g., Hitt, Biermant, Shimizu, & Kochhar, 2001).

Acknowledgements

The authors thank Professor Jerry Kudlats, Jacksonville University, Professor Whitney Peake, Western Kentucky University, and the journal reviewers for their careful readings and suggestions.

References

- Arbaugh, J. B. (2003). Outsourcing intensity, strategy, and growth in entrepreneurial firms. *Journal of Enterprising Culture*, 11(02), 89–110. <http://dx.doi.org/10.1142/S0218495803000068>.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <http://dx.doi.org/10.1177/014920639101700108>.
- Bendickson, J., Muldoon, J., Ligouri, E., & Midgett, C. (2017). High performance work systems: A necessity for startups. *Journal of Small Business Strategy*, 27(2), 1–12.
- Coder, L., Peake, W., & Spiller, M. (2017). Do high performance work systems pay for small firms? An intellectual capital building perspective. *Journal of Small Business Strategy*, 27(2), 13–35.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75–87. <http://dx.doi.org/10.1002/smj.4250100107>.
- Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, 16(1), 7–26. <http://dx.doi.org/10.1177/104225879101600102>.
- Crook, T. R., Todd, S. Y., Combs, J. G., Woehr, D. J., & Ketchen, D. J., Jr. (2011). Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. *The Journal of Applied Psychology*, 96(3), 443–456.
- Dada, O. L., & Fogg, H. (2016). Organizational learning, entrepreneurial orientation, and the role of university engagement in SMEs. *International Small Business Journal*, 34(1), 86–104. <http://dx.doi.org/10.1177/0266242614542852>.
- Dasborough, M., & Sue-Chan, C. (2002). The role of transaction costs and institutional forces in the outsourcing of recruitment. *Asia Pacific Journal of Human Resources*, 40(3), 306–321. <http://dx.doi.org/10.1177/1038411102040003255>.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. London: Sage.
- Godfrey, P. C., & Hill, C. W. (1995). The problem of unobservables in strategic management research. *Strategic Management Journal*, 16(7), 519–533. <http://dx.doi.org/10.1002/smj.4250160703>.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(S2), 109–122. <http://dx.doi.org/10.1002/smj.4250171110>.
- Grünhagen, M., Wollan, M. L., Dada, O. L., & Watson, A. (2014). The moderating influence of HR operational autonomy on the entrepreneurial orientation–performance link in franchise systems. *The International Entrepreneurship and Management Journal*, 10(4), 827–844. <http://dx.doi.org/10.1007/s11365-013-0270-7>.
- Halim, H. A., Ahmad, N. H., Ho, T. C., & Ramayah, T. (2017). The outsourcing dilemma on decision to outsource among small and medium enterprises in Malaysia. *Global Business Review*, 18(2), 348–364. <http://dx.doi.org/10.1177/0972150916668603>.
- Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, 25(12), 1155–1178. <http://dx.doi.org/10.1002/smj.421>.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.
- Hayton, J. C. (2003). Strategic human capital management in SMEs: An empirical study of entrepreneurial performance. *Human Resource Management*, 42(4), 375–391. <http://dx.doi.org/10.1002/hrm.10096>.
- Hitt, M. A., Biermant, L., Shimizu, K., & Kochhar, R. (2001). Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. *The Academy of Management Journal*, 44(1), 13–28.
- Javalgi, R. R. G., & Todd, P. R. (2011). Entrepreneurial orientation, management commitment, and human capital: The internationalization of SMEs in India. *Journal of Business Research*, 64(9), 1004–1010. <http://dx.doi.org/10.1016/j.jbusres.2010.11.024>.
- Josefy, M., Kuban, S., Ireland, R. D., & Hitt, M. A. (2015). All things great and small: Organizational size, boundaries of the firm, and a changing environment. *The Academy of Management Annals*, 9(1), 715–802. <http://dx.doi.org/10.1080/19416520.2015.1027086>.
- Khandwalla, P. N. (1976/1977). Some top management styles, their context and

- performance. *Organization and Administrative Sciences*, 7, 21–51.
- Kilenthong, P., Hultman, C. M., & Hills, G. E. (2016). Entrepreneurial orientation as the determinant of entrepreneurial marketing behaviors. *Journal of Small Business Strategy*, 26(2), 1–21.
- Klaas, B. S. (2003). Professional employer organizations and their role in small and medium enterprises: The impact of HR outsourcing. *Entrepreneurship Theory and Practice*, 28(1), 43–62. <http://dx.doi.org/10.1111/1540-8520.00031>.
- Klaas, B. S., McClendon, J. A., & Gainey, T. W. (1999). HR outsourcing and its impact: The role of transaction costs. *Personnel Psychology*, 52(1), 113–136. <http://dx.doi.org/10.1111/j.1744-6570.1999.tb01816.x>.
- Klaas, B. S., McClendon, J. A., & Gainey, T. W. (2000). Managing HR in the small and medium enterprise: The impact of professional employer organizations. *Entrepreneurship Theory and Practice*, 25(1), 107–124. <http://dx.doi.org/10.1117/104225870002500109>.
- Klaas, B. S., McClendon, J. A., & Gainey, T. W. (2001). Outsourcing HR: The impact of organizational characteristics. *Human Resource Management*, 40(2), 125–138. <http://dx.doi.org/10.1002/hrm.1003>.
- Kreiser, P. M. (2011). Entrepreneurial orientation and organizational learning: The impact of network range and network closure. *Entrepreneurship Theory and Practice*, 35(5), 1025–1050. <http://dx.doi.org/10.1111/j.1540-6520.2011.00449.x>.
- Kreiser, P. M., Marino, L. D., Kuratko, D. F., & Weaver, K. M. (2013). Disaggregating entrepreneurial orientation: The non-linear impact of innovativeness, proactiveness and risk-taking on SME performance. *Small Business Economics*, 40(2), 273–291.
- Lepak, D. P., Bartol, K. M., & Erhardt, N. L. (2005). A contingency framework for the delivery of HR practices. *Human Resource Management Review*, 15(2), 139–159. <http://dx.doi.org/10.1016/j.hrmr.2005.06.001>.
- Lepak, D. P., & Snell, S. A. (1998). Virtual HR: Strategic human resource management in the 21st century. *Human Resource Management Review*, 8(3), 215–234.
- Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *The Academy of Management Review*, 24(1), 31–48.
- Lepak, D. P., & Snell, S. A. (2002). Examining the human resource architecture: The relationships among human capital, employment, and human resource configurations. *Journal of Management*, 28(4), 517–543. [http://dx.doi.org/10.1016/S0149-2063\(02\)00142-3](http://dx.doi.org/10.1016/S0149-2063(02)00142-3).
- Li, W., Liu, K., Belitski, M., Ghobadian, A., & O'Regan, N. (2016). e-Leadership through strategic alignment: An empirical study of small- and medium-sized enterprises in the digital age. *Journal of Information Technology*, 31(2), 185–206. <http://dx.doi.org/10.1057/jit.2016.10>.
- Li, Y. H., Huang, J. W., & Tsai, M. T. (2009). Entrepreneurial orientation and firm performance: The role of knowledge creation process. *Industrial Marketing Management*, 38(4), 440–449.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *The Academy of Management Review*, 21(1), 135–172.
- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429–451. [http://dx.doi.org/10.1016/S0883-9026\(00\)00048-3](http://dx.doi.org/10.1016/S0883-9026(00)00048-3).
- Lyon, D. W., Lumpkin, G. T., & Dess, G. G. (2000). Enhancing entrepreneurial orientation research: Operationalizing and measuring a key strategic decision making process. *Journal of Management*, 26(5), 1055–1085. <http://dx.doi.org/10.1177/014920630002600503>.
- Messersmith, J. G., & Wales, W. J. (2011). Entrepreneurial orientation and performance in young firms: The role of human resource management. *International Small Business Journal*, 31(2), 115–136. <http://dx.doi.org/10.1177/0266242611416141>.
- Miller, D., & Friesen, P. H. (1982). Innovation in conservative and entrepreneurial firms: Two models of strategic momentum. *Strategic Management Journal*, 3(1), 1–25. <http://dx.doi.org/10.1002/smj.4250030102>.
- Mintzberg, H. (1973). Strategy-making in three modes. *California Management Review*, 16(2), 44–53. <http://dx.doi.org/10.2307/41164491>.
- Nguyen, T. T. T., & Chang, M. L. (2017). Antecedents of human resources outsourcing decision in Vietnam. *Personnel Review*, 46(4), 702–717. <http://dx.doi.org/10.1108/PR-11-2015-0307>.
- Nickerson, J. A., & Zenger, T. R. (2004). A knowledge-based theory of the firm—The problem-solving perspective. *Organization Science*, 15(6), 617–632. <http://dx.doi.org/10.1287/orsc.1040.0093>.
- Ordanini, A., & Silvestri, G. (2008). Recruitment and selection services: Efficiency and competitive reasons in the outsourcing of HR practices. *International Journal of Human Resource Management*, 19(2), 372–391. <http://dx.doi.org/10.1080/09585190701799960>.
- Pennings, J. M., Lee, K., & Van Witteloostuijn, A. (1998). Human capital, social capital, and firm dissolution. *The Academy of Management Journal*, 41(4), 425–440.
- Pett, T., & Wolff, J. (2016). Entrepreneurial orientation and learning in high and low-performing SMEs. *Journal of Small Business Strategy*, 26(2), 71–86.
- Pfeffer, J. (1994). Competitive advantage through people. *California Management Review*, 36(2), 9–28.
- Pfeffer, J. (1995). Producing sustainable competitive advantage through the effective management of people. *The Academy of Management Executive*, 9(1), 55–69.
- Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the human capital resource: A multilevel model. *The Academy of Management Review*, 36(1), 127–150.
- Prado-Gascó, V., Pardo, I. Q., & Pérez-Campos, C. (2017). Knowledge management and organizational culture in a software development enterprise. *Journal of Small Business Strategy*, 27(1), 37–49.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship: Theory and Practice*, 33(3), 761–787. <http://dx.doi.org/10.1111/j.1540-6520.2009.00308.x>.
- Salimath, M. S., Cullen, J. B., & Umesh, U. N. (2008). Outsourcing and performance in entrepreneurial firms: Contingent relationships with entrepreneurial configurations. *Decision Sciences*, 39(3), 359–381. <http://dx.doi.org/10.1111/j.1540-5915.2008.00196.x>.
- Shan, P., Song, M., & Ju, X. (2016). Entrepreneurial orientation and performance: Is innovation speed a missing link? *Journal of Business Research*, 69(2), 683–690.
- Sheehan, C., & Cooper, B. K. (2011). HRM outsourcing: The impact of organisational size and HRM strategic involvement. *Personnel Review*, 40(6), 742–760.
- Shih, H. A., & Chiang, Y. H. (2011). Exploring the effectiveness of outsourcing recruiting and training activities, and the prospector strategy's moderating effect. *International Journal of Human Resource Management*, 22(01), 163–180. <http://dx.doi.org/10.1080/09585192.2011.538980>.
- Small Business & Entrepreneurship Council (2016). Facts & data on small business and entrepreneurship: Small business facts. Retrieved from <http://sbecouncil.org/about-us/facts-and-data/>, Accessed date: 9 March 2018.
- Small Business Administration: Office of Advocacy (2014). Frequently asked questions. Retrieved from https://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf, Accessed date: 13 March 2018.
- Spender, J. C., & Grant, R. M. (1996). Knowledge and the firm: Overview. *Strategic Management Journal*, 17(S2), 5–9.
- Tang, G., Chen, Y., & Jin, J. (2015). Entrepreneurial orientation and innovation performance: Roles of strategic HRM and technical turbulence. *Asia Pacific Journal of Human Resources*, 53(2), 163–184. <http://dx.doi.org/10.1111/1744-7941.12053>.
- Wehner, M. C., Giardini, A., & Kabst, R. (2012). Graduates' reactions to recruitment process outsourcing: A scenario-based study. *Human Resource Management*, 51(4), 601–623.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307–1314. <http://dx.doi.org/10.1002/smj.360>.
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing*, 20(1), 71–91. <http://dx.doi.org/10.1016/j.jbusvent.2004.01.001>.
- Kristin C. Irwin** – Kris Irwin is a PhD student in the Department of Management at the University of Alabama. She earned a Master of Business Administration from the Fuqua School of Business at Duke University and a Bachelor of Science in Psychology and Computer Science from Vanderbilt University. Kris has previous work experience as a management consultant for Deloitte Consulting and most recently as the Director of People and Change for North Highland Worldwide Consulting. She has consulted across multiple industries and worked with both small and large, multi-national organizations. Her research interests include strategic human capital, organizational change, and mergers and acquisitions.
- Karen M. Landay** - Karen Landay is a PhD student in the Department of Management at the University of Alabama. Karen's research has been published in The Leadership Quarterly and Talent Quarterly and is in press at Journal of Personnel Psychology, Industrial and Organizational Psychology, and Research in Occupational Stress and Well-being. She has received awards from Southern Management Association, the University of Alabama, and the University of Wisconsin Oshkosh, and is an inductee of Beta Gamma Sigma and the Franklin Honor Society. Karen's research interests include human resource outsourcing, recruitment, and dark personality.
- Joshua R. Aaron** - Dr. Joshua R. Aaron is an Associate Professor of Management at Middle Tennessee State University. He holds a PhD in Strategic Management, an MBA in Strategic Management and a BS in Accounting, all from the University of Alabama. His research focuses on executive compensation for large and small firms, leadership, strategic issues facing small and medium enterprises and corporate reputation.
- William C. McDowell** – Dr. William C. McDowell is the Turner Chair of Entrepreneurship in the Foster College of Business and the Executive/Academic Director of the Turner School of Entrepreneurship at Bradley University. He is the editor-in-chief of the *Journal of Small Business Strategy* and is past president of the Small Business Institute. He received his Ph.D. in Management from the University of North Texas. His research focuses primarily on Entrepreneurship and Small Business.
- Louis D. Marino** – Lou Marino is the Frank Mason C&BA Faculty Fellow in Family Business and is a Professor of Entrepreneurship and Strategic Management at The University of Alabama. Dr. Marino's research focuses on how entrepreneurial firms and individuals respond to environmental uncertainty. At the firm level, he has focused on how a firm's entrepreneurial orientation impacts the nature and efficacy of their response to uncertainty and at the individual level, he has examined how maladaptive traits influence an individual's response to uncertainty. His research has been published in outlets such as the Academy of Management Journal, the Journal of International Business Studies, the Journal of Business Venturing and Entrepreneurship Theory and Practice.
- Patrick R. Geho** – Dr. Patrick R. Geho is a faculty member in the Department of Management at Middle Tennessee State University. Dr. Geho is also the state executive director of Middle Tennessee State University's Tennessee Small Business Development Center Network, which consists of 20 office locations across the state. He has published peer reviewed articles in journals such as American Journal of Management, Global Journal of Management and Marketing, Journal of Business Research, Academy of Educational Leadership Journal, Small Business Institute Journal, Journal of Digital Social Media Marketing, Entrepreneurial Executive Journal, and Research in Business and Economics Journal.