CULTURAL FACTORS: ENTREPRENURIAL ORIENTATION OR NOT—HERE COMES INNOVATION IN SMALL TO MEDIUM SIZED ENTERPRISES

By

Donald G. Chambers

Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Management
at the Weatherhead School of Management

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TABLE OF CONTENTS

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ABSTRACT

Small to Medium Sized Enterprises (SME) are a significant contributor to USA employment and GDP but are disappointingly understudied. Small firms may often carry a label of "entrepreneur" yet it is now commonly understood that not all small firms are necessarily entrepreneurial nor does lacking that orientation mean that SMEs uniquely fail to innovate. We conducted two sequential studies to identify what other factors besides entrepreneurial orientation (EO) contributed to small firm innovation and whether those constructs could stand on their own in the absence of EO. What we found in our qualitative study was that firm-wide culture—namely empowerment, play, and organizational learning (OL)—were more prevalent in our 29 successful SME than EO. When we tested those firm-wide cultural factors' effects on innovation in the absence of EO, we found that small firms did innovate without EO, but more surprising was the substantive increase in predicting innovation in small firms when BOTH EO and OL were present. These studies are important for scholars in that we have added to the literature concepts of small firm innovation that eschew EO as a requisite for innovation. For practitioners, this is even more important in that small firm owners and senior leaders need not be entrepreneurially inclined to innovate but when they are and also support certain internal culture development, they are more likely to innovate than when only EO or OL exist on its own.

Keywords: SME; EO; OL; entrepreneur; organizational learning; small business

INTRODUCTION

Thirty years ago, the definition of entrepreneur was unclear, and many small business owners would have been surprised to learn that scholars defined many of them as small business owners and not entrepreneurs (Cunningham & Lischeron, 1991). In more recent times it has become well established that there is indeed a significant difference between entrepreneurial behavior and simply being a small business owner (Carland, Hoy, Boulton, & Carland, 1984; Runyan, Droge, & Swinney, 2008). Research in the field of entrepreneurship has broadened into many dimensions with the most significant studies being recent yet rapidly evolving (Carlsson et al., 2013). A well-established aspect in the field is that of entrepreneurial orientation (EO) with its dimensions of new product generation, risk taking and proactiveness, having been studied from varying viewpoints, including the SME context (Anderson, Kreiser, Kuratko, Hornsby, & Eshima, 2015). While EO has been shown to impact innovation those efforts do not assess what other culture-related variables may be antecedent or those that perhaps mediate such outcomes (Kreiser, Marino, Kuratko, & Weaver, 2013). It has been shown in numerous studies that (EO) leads to exceptional innovation specifically in the small business context (Rauch, Wiklund, Lumpkin, & Frese, 2009) and EO is generally recognized by researchers as being a significant contributor to firm performance (Covin & Lumpkin, 2011). However, several of those studies suggest that direct effects alone are an incomplete view (Wang, 2008) indicating there may be other factors besides EO that leads to firm innovation.

Gibb (1999) notes that while EO development is important to small to medium-sized enterprise success, equal attention must be given to organizational culture—a term first employed by Lewin (Lewin, Lippitt, & White, 1939). Regardless of exactly how

organizational culture is defined a recent meta-analysis reviewing company culture as a predictor of innovation suggested that it is now common sense to recognize that organizational culture is related to innovation (Büschgens, Bausch, & Balkin, 2013). One such specific cultural attribute that leads to innovation via creativity expansion is that of playfulness (Mainemelis & Ronson, 2006) such that SMEs who encourage play in the work environment will innovate. In order for innovation to occur however employees must feel unbound and empowered to make decisions and such empowerment must be both perceived and real to be effective (Spreitzer, 1995). Finally, innovation is an iterative learning process defined as an intentional and purposeful process of information inflows and outflows which lead to and accelerate innovation (Chesbrough, 2003). Therefore, it follows that organizations, in our case small firm, must have a learning culture dimension to drive the playful and empowered towards innovation.

In the USA Small to medium sized enterprises (SME), defined as firms with less than 500 employees (US Census Bureau, 2013), account for over half of non-farm GDP (Small Business Administration, 2014), make up 99% of all firms, generated 65% of net new jobs from 1993–2009 and constitute nearly half the employment in the USA (US Census Bureau, 2013). Despite the economic importance of SMEs, the study of employee-related business practices has been largely ignored or inadequate in US based firms (Heneman, Tansky, & Camp, 2000; Jack, Hyman, & Osborne, 2006). It is incredibly apparent that the US and overall world economy are dependent on small firms yet with some recent notable exceptions research has disproportionately shunned this context in favor of larger firms. Whether this is due to data access, perceived notions that large firms are most important or pure happenstance is a mystery; regardless it is our intention to shed light on US-based SME

innovation beyond the EO construct in order to advance theory on how SME innovate while offering practitioners guidance on what additional factors beyond EO may lead to SME innovation or what factors enhance EO's effect on innovation when it is present.

The organization of this paper is as follows. We start with an initial discussion regarding the motivation for our studies and a brief overview of the theoretical underpinnings for our inquiries. Next, we summarize the two studies that form the basis for our discussion, type of research methods employed and results of the studies followed by a discussion on how those two studies intersect and where they differ. Finally, we describe the implication of these studies, suggest future research and note some limitations.

PURPOSE, METHODS, STUDIES AND CONCLUSIONS

Purpose

We are motivated to conduct this research given that SMEs are such a substantial component of GDP and responsible for a large portion of job creation in the US (Haltiwanger, Jarmin, & Miranda, 2013). However, smaller firms are rarely, if ever, public, so gathering data about such firms is difficult. While the size of a firm has been shown to matter, research on SMEs has continued to pale in comparison to larger firms (Rutherford, McMullen, & Oswald, 2001). Hornsby also noted that most work on SME has been conducted outside the US, and given the variety of legal and *country* cultural dissimilarities, such research is not generalizable to US-based SME (Hornsby & Kuratko, 2003). Our studies attempted to uncover new combinations of evidence linking how successful US based small firms innovate in the absence of EO or explain, in part or whole, how other factors may increase the effects of EO on innovation.

In our review of the relevant literature, we found scant research studying or linking the internal culture of a firm with EO rather studies of EO and culture focused on select *country* culture rather than that of the firm (Lee & Peterson, 2001). Other studies compared EO levels across countries (Kreiser, Marino, Dickson, & Weaver, 2010) while others defined culture according to diversity such as race and gender (Richard, Barnett, Dwyer, & Chadwick, 2004). Some work has been done comparing family versus non-family owned firms culture to EO (Zahra, Hayton, & Salvato, 2004) but such studies described individual orientation versus that of the firm. Our studies focused on firm culture of small firms in the US and those internal cultural factors described by SME owners and leaders as being critical to their success.

Qualitative Then Quantitative Strand

We have chosen a sequential QUAL→quan exploratory design (Creswell, Klassen, Plano Clark, & Smith, 2011) for our work, in large part due to the limited research available on SME, especially in the US, thereby driving a need to first explore our research questions with a qualitative assessment and follow it with a quantitative test of those findings to see where they converge or differ. A qualitative approach using grounded theory was deemed appropriate for the initial strand of the proposed research as prior empirical studies on the behaviors of SME owners or top executives has been limited (Jack et al., 2006). Firm organizational culture was assessed using a qualitative method whereby shared values between the firm's owners and its employees could be deeply understood (Haugh & McKee, 2004). Thereafter we used the qualitative findings to construct a survey instrument which could test those findings.

The study is purposefully a mixed methods study making use of both qualitative and quantitative approaches to data gathering and analysis in a pragmatic way (Tashakkori & Teddlie, 2003). The study was a sequential QUAL → quan approach giving priority weighting to the initial qualitative study as it was direct evidence of how firms operate based on in-depth interviews with SME owners and senior leaders. By first conducting a qualitative assessment we uncovered constructs that we believe contribute to successful innovation in a SME and later tested those concepts quantitatively. Using this approach allows the researcher to generalize from a smaller sample and then gain a richer and fuller contextual understanding of the phenomena being studied (Hanson, Creswell, Clark, Petska, & Creswell, 2005). Our initial research question was what organizational cultural factors lead to small firm success.

The qualitative inquiry found that while the concept of entrepreneurialism was spoken to by many firms the way in which they described their version of "entrepreneurial" was not always the definition around which most research has coalesced including new product introduction, proactiveness, and risk taking (Anderson et al., 2015). What we found was that SME owners and senior leader described various critical attributes of their culture more so than EO behaviors. From those findings we developed a survey instrument to test our primary hypothesis that EO was not a required attribute or behavior of a SME in order for it to successfully innovate but said innovation may be the result of firm-wide cultural traits; such firm-wide cultural characteristics may also enhance the effects of EO if present.

The qualitative study was conducted first and interpreted before the quantitative study began. The quantitative study results were then interpreted separately before assessing how the two studies came together or where each study had different findings.

THEORETICAL FRAMEWORK

Organizational Culture

Since Lewin's time, multiple efforts have been put forth to define exactly what organizational culture is but in general, it may be summed up as an interdependent evolution of purpose, meaning, normative patterns, and systems of leadership that constantly evolve within the firm (Pettigrew, 1979) or that it's a complex set of values, beliefs, assumptions and symbols that define the way in which a firm conducts business (Barney, 1986; Peters, Waterman, & Jones, 1982). A more recent and commonly accepted way of describing organizational culture can be summarized as a shared set of values, beliefs, assumptions and work systems that are embedded within an organization and perpetuates through continued communication of such values to both existing organizational members and newcomers (Schein, 2010).

Regardless of the exact definition employed a recent review of top journals found only 10 articles that studied organizational culture directly and as an aggregate construct (Schneider, Ehrhart, & Macey, 2013) conveying the need for more research. Another recent meta-analysis of 46 studies shows that most work on SME has been done in just the last 15 years and found that innovation is context dependent, particularly influenced by an organization's culture (Rosenbusch, Brinckmann, & Bausch, 2011). Cultural dimensions play a key role in shaping a small firm innovative work environment in both the individual and firm level and often include specific attributes such as empowerment (Çakar & Ertürk, 2010). Playfulness has also been shown to improve creativity that leads to innovation (Chang, 2011) and organizational learning has been linked to small firm innovation (Sarros, Cooper, &

Santora, 2008) but as with much SME research studies are most often conducted outside the US and are in short supply.

Entrepreneurial Orientation

The field of entrepreneurship has a fragmented history in part to its eclectic nature although the trend to more thoughtful study of entrepreneurs began in the latter part of the 20th century with the introduction of several publications designed to encourage, capture and codify the field (Ács & Audretsch, 2003). Yet even ten years ago entrepreneurship lacked cohesive theories needed to make it a separate domain (Christensen, Carlile, & Sundahl, 2002) and the early 21st-century study of entrepreneurship remained a catch-all encompassing a wide range of topics (Ács & Audretsch, 2003). Most recently however entrepreneurship is finally finding its theoretical legs and its domain and dimensions becoming clearer (Ács, 2015).

Entrepreneurial Orientation (EO) suggests what is meant by a firm to be "entrepreneurial" in the most basic of definitions (Covin & Lumpkin, 2011). An increase in the amount of EO within a small to medium-sized firm has been positively correlated with better firm outcomes (Wiklund, 1999; Zahra & Covin, 1993). For our study purposes, we consider entrepreneurial orientation to be a combination of a strong proclivity to introduce new products (Covin & Slevin, 1991) along with a proactive nature whereby the firm seeks to get ahead of the competition by anticipating future demand (Lumpkin & Dess, 2001) and related willingness to commit large resource commitments that involve a low probability of success (Miller & Friesen, 1982).

Organizational Learning

Organizations need to learn by accumulating knowledge gained from experience and refining that knowledge through iterative tests of that information within the workplace (Kolb, 2014). In the SME context, we define organizational learning as the dynamic process of individuals within the firm interpreting the environment and responding by learning causal relationships (Lee, Courtney, & O'Keefe, 1992) which inspires changes in organizational norms (Argyris & Schön, 1978). Accordingly, another key attribute to the firm's success is the ability of the firm to engage in learning styles that encourage open communication and sharing of knowledge (Baker & Sinkula, 1999). SME that share information in an open and often less structured environment have been shown to outperform those that are hierarchical and closed (Stoica, Liao, & Welsch, 2004). Further, firms that have characteristics of a learning organization that include open communications and information sharing, new idea promotion, and resource availability are more likely to innovate and adapt quickly to change (Kontoghiorghes, Awbre, & Feurig, 2005). What these prior studies have taught us is that organizational learning is important, yet we have had little empirical review of how it plays a role in the absence of or combined with EO in the context of smaller firms.

Empowerment

Entrepreneurial orientation alone does not necessarily lead to SME firm success; rather, additional cultural attributes must be at play (Gibb, 1999). One cultural construct impacting the ability of a firm to innovate is empowerment or allowing those closest to the action to make decisions and keeping employees abreast of the most recent information available about the company and its markets (Denison, 2000). For purposes of these studies, we define empowerment consistent with Denison as individuals having the authority,

initiative, and ability to manage their own work; which then creates a sense of ownership and responsibility toward the organization (Denison, Janovics, Young, & Cho, 2006). A recent meta-analysis shows that firms evidencing high-performance work practices that include collaboration and feedback, key elements of empowerment, are positively associated with psychological empowerment measures that led to positive firm performance outcomes (Seibert, Wang, & Courtright, 2011). However, the SME context has not been specifically taken into account in most studies although one recent study did focus solely on small to medium-sized firms and found that empowerment was positively associated with innovation both at the firm and individual level (Çakar & Ertürk, 2010). However, we are still left seeking what other factors may be combinative in magnifying the explanation of small firm innovation.

Playfulness

Playfulness can lead to organizational learning when individuals or teams are allowed to "play." Through play organization's members are more creative and can speed up their learning process through sparks of creativity created by play (Brown, 2009). Playfulness can also influence the firm's ability to innovate, and share ideas, leading to enhanced performance and product innovation (Glynn & Webster, 1992). We define play as individual or collective engagement associated with work or an effort towards diversion from work which encourages creativity (Mainemelis & Ronson, 2006). The playful nature of employees is to engage one another through positive behaviors. Another way to drive sustained success in SME is by promoting creativity by allowing employees to self-organize through both empowerment and play. Such self-organizing can lead to transformational change that then leads to firm innovation and sustained competitive advantage (Lichtenstein, 2000). What

leaves us wanting, however, is how such forces as empowerment, play and learning work separately or together with EO to explain small business innovation.

Innovation

Innovation is the technical, design, manufacturing, management and commercial activities involved in the marketing of a new (or improved) product or the first commercial use of a new (or improved) process or equipment (Terziovski, 2010). A second dimension involves how strategy plays a role within the firm (Zahra & Covin, 1993). A third approach considers the successful exploitation of new ideas under condition of product (or process) novelty and use but includes the first definition above (Alegre, Lapiedra, & Chiva, 2006).

THE QUALITATIVE STUDY

The qualitative study was based on semi-structured interviews to develop grounded theory (Corbin & Strauss, 2008) about how SMEs manage their talent and culture. Grounded theory is an explorative, iterative and cumulative way of building theory (Glaser & Strauss, 1977). The main features of this approach involve theoretical sampling and the constant comparison of data. Constant comparison is a rigorous method of analysis that involves constant interactions with the data (Maxwell, 2005) to compare and contrast emerging with already emergent ideas and themes. Simultaneous collection and processing of data (Lincoln & Guba, 1985: 335) lead to the generation of theory firmly grounded in the data as received.

The sample set for the study was 29 senior executives/owners of SME across three industry sectors, including manufacturing, retail and services located in several geographic areas of the United States. Only one person was interviewed at each firm, typically one of the senior most persons or owner. We chose this approach given the nature of SME in that they are smaller firms often started by those individuals and in any case have the broadest

perspective in how the firm operates (Jack et al., 2006). Further, from a pragmatic viewpoint (Teddlie & Tashakkori, 2009), it would be difficult to arrange to meet those in the organization other than the owner or senior most executives that are likely to have a broad-based view of the firm.

Consistent with a grounded theory approach, data analysis commenced simultaneously with data collection in the qualitative phase. Three stages of detailed coding were used. First, all of the transcripts were be "open-coded," a process that requires the researcher to identify every fragment of data with potential interest (Saldaña, 2013). In a second phase of coding ("axial coding") the categories identified in the first phase were further redefined as ideas and themes as they begin to emerge from the data (Corbin & Strauss, 2008). Finally, in the third phase ("selective coding"), we drilled down to key categories and themes that yielded our findings.

Our qualitative inquiry found that while small to medium-sized firms' owners and leaders try to create an entrepreneurial environment or at least speak to it, what they actually do by definition is empower their employees and offer varying levels of autonomy. The next finding relates to another specific cultural trait of the firm, which of knowledge sharing or organizational learning; while another significant cultural finding is that small firms foster a playful atmosphere. Lastly, we found that while smaller firms typically relied on less formal human resource systems they did follow large firm style human resource practices but again in a less formal or unwritten manner. A summary of the qualitative study results is shown in Table 1.

TABLE 1
Findings from the Qualitative Strand

Entrepreneurial Behavior	most often was not described according to the three key dimensions of EO although just under half of the respondents DID describe EO behaviors while nearly all respondents spoke to internal culture playing a role in their success
Empowerment	was characterized as allowing staff to make their own decisions or take ideas and run with them without always seeking ownership approval
Playfulness	was described as creating a workspace where employees were encouraged to laugh and have fun while allowing a comfortable and less structured work routine.
Organizational Learning	meant creating structures or work processes that caused information to be shared or widely known and ensuring that owners and all employees gave one another regular feedback. The last finding is that SME did utilize large firm-styled strategic human resource practices, particularly several components of high-performance work systems, albeit informally
High-Performance Work Systems	was explained as guiding human resource policies and practices that were in place, albeit typically informal, that included concepts such as employee performance appraisals, training, hiring criterion and compensation systems
Leadership and Mentorship	were ideas discussed from two angles—that of previously having been led or taught by previous supervisors and then applying those teachings to effect certain leadership traits such as setting an example of work ethic, and treating others as they wish to be treated

THE QUANTITATIVE STUDY

After results of the qualitative study were analyzed and interpreted we developed a five-point Likert-style survey to examine specific aspects of the qualitative findings analyzed using structural equation modeling (SEM). One reason we give priority weighting to the qualitative inquiry is that the specific narrative from interviewees could be used to locate previously validated scales that specifically address such narrative and then adapt as necessary. By testing specific constructs revealed during the qualitative phase we sought to obtain results that support, or perhaps defy, the qualitative findings. However, we expect to enhance our understanding of those constructs and their relative explanatory power as to which constructs most prominently explain firm innovation, if at all, and how EO participates

in those explanations. We also sought divergent findings whereby the findings from our qualitative study are not shown to directly explain firm innovation. The explanatory findings from our quantitative study may be used to re-interpret the qualitative data if something prominent emerges which direct us to evaluate whether or not such findings were perhaps missed during the interpretation of the qualitative results.

The sample for the qualitative study included those interviewed in the qualitative study plus a random selection of contacts from our network, snowballing and invitations to members of SME trade associations and groups, particularly those on LinkedIn. Generating the sample in this way offered an opportunity to gain insights from various levels within organizations which may uncover nuances not uncovered when just interviewing the top level of the organization. Further, since LinkedIn is a broad-based social network we were able to get respondents from multiple industries, regions of the USA and various age and education levels. Care was taken to screen out those that are not working in firms with less than 500 employees, and we required forced responses in order to get the full view of the respondents and ensure each sample was usable. In order to draw conclusions as to what firm characteristics lead to innovation, we also attempted to keep firms operating less than five years to a minimum as we believe the firm must demonstrate some staying power versus perhaps having one or two successful years (Glover, 2014). We collected 220 usable surveys for our study.

The quantitative data were analyzed using structural equation modeling. The constructs and items used were based on previously validated measurement scales as adapted for this particular study. Before sending out surveys, we conducted several rounds of q-sorts, a powerful, theoretically grounded tool assessing opinions and attitudes of measures (Thomas

& Watson, 2002). Successful q-sort was determined based on achieving acceptable hit rates, or overall respondents understanding of item measures for each construct (Moore & Benbasat, 1991) which we achieved after seven iterations. Then we pilot tested the survey to obtain additional feedback on overall design and ease of use (Bolton, 1993). Final surveys were distributed and collected over approximately a one month period then analyzed using SPSS and AMOS software. In doing so, we conducted data screening, EFA, and CFA to demonstrate construct reliability and validity comparing results for all these tests to well-cited guidelines, including model fit statistics (Hair, Black, Babin, & Anderson, 2010). Our data met such guidelines.

The quantitative inquiry was intended to test the explanatory power differential, if any between entrepreneurial orientation and organizational learning on small firm innovation when each is isolated as a mediator of empowerment and playfulness and what impact results when both are present. When assessing direct effects only, the independent variables of play and empowerment have a significant effect on innovation. When testing entrepreneurial orientation or organizational learning separately as mediators to play and empowerment on innovation play is fully mediated by either mediator. However, empowerment is only mediated by organizational learning. When modeling with either EO or OL as a mediator on play and empowerment to innovation the explanatory power of the model with EO as the mediator is .36 as described by its R-squared while a significant but smaller explanatory R-squared of .26 is found when OL is the mediator. However when both mediators are present the explanatory power of the model rises to an R-squared of .51. A summary of the quantitative study results is in Table 2.

TABLE 2
Findings from the Qualitative Strand

EO direct effect on Innovation (IN)	Strong
OL direct effect on Innovation (IN)	Strong
PL unmediated direct effect on IN	Good
EM unmediated direct effect on IN	Good
PL & EM mediated effect on IN by OL	Strong
PL & EM mediated effect on IN by EO	Strong
PL & EM mediated effect on IN by BOTH EO & OL	STRONGEST

Study Integration

Data integration took place after both the qualitative and quantitative approaches had been independently completed, a sequential approach to mixed methods study (Creswell et al., 2011). As expected, the qualitative portion was relied upon to generate theory for testing while the quantitative assessment was relied upon to support hypotheses. The method for combining these analyses is triangulation whereby data from each type study are used to support and validate (or in some cases provide alternative explanations) one another (Östlund, Kidd, Wengström, & Rowa-Dewar, 2011). Triangulation is a method often used in social sciences as a way of reducing the uncertainty of interpretation by using more than one method (Bryman, 2006), which is why we are using this approach for our study. Triangulating for our purposes is based on an exploratory design, meaning we first conducted the qualitative study, determined findings then used those findings to develop a separate quantitative study. The quantitative results are then "triangulated" with the qualitative findings to determine if there is convergence or that the findings from the qualitative study are corroborated (Bryman, 2006). We integrate our findings by comparing the results from both studies multiple times and use quantitative data to re-examine qualitative data to

uncover additional convergent findings or perhaps determine there are divergent findings we must address (Östlund et al., 2011).

As we learned from our QUAL study, there were several findings primarily that what SME owners and senior leaders described as “entrepreneurial” was by our definition most often related to firm-wide culture. However, several of our respondents did also make statements that fit the behaviors of EO suggesting that indeed EO exists in many small firms but in our study was actually less than half. What was most prevalent was commentary and lucid stories defining an emphasis on internal culture. Such stories were carefully inspected and coded to categorize their meanings into five categories: empowerment, playfulness, learning, high-performance work practices, and leadership/mentorship.

Our qual study did not assess the latter two findings of work practices or leadership so we can neither confirm nor deny their impact on small firm innovation. However, that study confirmed our QUAL findings that EO does exist in SME and leads to small firm innovation. Also, as in our QUAL study, we found direct positive effects of empowerment, play and learning on innovation. What differs in our qual study is that EO has a stronger effect on innovation than can be gleaned from the QUAL study. Further, given our QUAL inquiry used a grounded theory approach, we did not necessarily use *innovation* as our barometer of success rather determined from our coding of the interviews that niche or market response innovation was taking place. We thusly located validated scales to test for innovation seeking questions that closely fit the verbal statements of our interviewees describing how they were successful, in particular how they innovated.

Another important differentiating point of the two studies was that the QUAL study only took into consideration the viewpoints of the owners or senior leaders whereas the quan

study included a diversified group of job titles. In neither study was there effort to get more than one respondent per firm. The quan study also was more even between male and female with a 55/45 ratio whereas the QUAL was 80/20 male versus female. However, we tested for group differences in the quan analysis and found there were no differences between the two groups

DISCUSSION AND CONCLUSIONS

What we learned from our qualitative inquiry was that internal culture was of serious consequence to the owners and senior leaders of small to medium sized enterprises. While many of the interviewees spoke about being entrepreneurial, when we coded the transcripts and read them several times the words they used to describe entrepreneurial was not within our definition of above average risk taking, proclivity to introduce new products and proactive efforts to meet emerging market demands, the definitions most of the literature has coalesced around (Anderson et al., 2015; Covin & Lumpkin, 2011). Rather, our interviewees were speaking to other cultural traits such as empowering their employees to make decisions, creating a playful environment and designing a knowledge gathering, sharing and dissemination environment. Some supporting comments from the qualitative study follow:

> And what will look like is having staff who, and I am not talking about just managers, I'm talking about the entire crew, who sees the value in doing their work at a level that they can be personally proud of without having to be prompted.
>
> I don’t sell products; I don’t engineer; and I don’t manufacture. But if I can empower people and motivate and provide that direction, they will take us there and that to me is pretty important.
>
> Interviewer: “Okay. So talk about fun, what does that mean?” Interviewee: “What it means is that we want to make sure that people enjoy what they do. We want people to work hard. We want people to demand a lot of themselves and of each other, but at the end of the day if it’s not fun, nobody is going to do

> it, they are not going to keep coming back. So we don't want to forget to have fun as well."
>
> I mean, you got to be able to communicate particularly with the new people. And if you can't communicate with the new people, you can't really expect a whole lot out of them or think they're going to be around long term and really get.

It was clear to us that true entrepreneurialism was absent at most of these firms and in fact most of them rarely proactively introduced new products, were in mature industries and as small firms had limited market share. What they did have however was an ability to be flexible and adapt to market demands and innovate with new products when called upon to do so. They were able to do this by rapidly sharing information within the firm, quickly learning new rules of the market and then by being empowered to act were able to innovate new ways to remain competitive with either new products or services. This innovation was evidenced by finding niche markets to attend to and then allow creativity to flourish among the playful atmosphere so that these niches could be exploited. The emphasis on firm-wide culture was almost universally spoken to and rich detail offered as to what culture meant namely the three concepts of empowerment, playfulness, and learning we studied. Separately we were also surprised to learn how many of the firms did use various forms of large firm human resource practices such as supporting training, additional education and hosting seminars which we find fit well within the domain of organizational learning.

We tested these findings quantitatively to see if indeed a small firm could be predicted to produce innovation in the absence of EO. We confirmed what many past studies found in that EO certainly did lead to innovation in the small firm context but as hypothesized we also found that innovation could occur in its absence. Organizational

learning was found to be a critical success factor leading to innovation within the small firm context and mediated other specific cultural traits of empowerment and play. We were able to support our belief that small firms can be successful and remain in business for many years even when the measured traits of EO are not present.

These findings have wide-reaching implications for both scholars and practitioners. For scholars, we have some new constructs beyond EO to study in terms of their impacts on small firm innovation, primarily how cultural constructs such as OL contribute to firm innovation in the absence of EO. We have debunked the myth so to speak that successful small firms are entrepreneurial and may be just as innovative when internal culture is leading the way including the presence of organizational learning as a mediating influence. While some small firms may have EO, others will survive and perform just fine in the absence of entrepreneurial characteristics. For practitioners, this is also of significant importance. Even when the individual owners or firm are entrepreneurial, their ability to innovate can be substantially improved by supporting other culture characteristics such as organizational learning. Sharing information, even in a firm with EO, will improve the innovate capabilities of the firm and the continued learning may become a source of competitive advantage. Even without EO the small firm that empowers its employees and allows play will adapt to changing market demands and innovate when necessary.

Of course, this study has limitations. The initial qualitative inquiry had only 29 participants and the follow on quantitative survey did not target multiple persons within individual organizations. Further, we did not assess the various second order factors of EO to see how they may contribute or detract from OL. Future research should more deeply study second-order factors of EO and test them individually as well as collectively against OL.

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FOR SMALL TO MEDIUM SIZED ENTERPRISES ENTREPRENEURIAL ORIENTATION IS NOT A NECESSARY ATTRIBUTE FOR SUCCESS

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FOR SMALL TO MEDIUM SIZED ENTERPRISES ENTREPRENEURIAL ORIENTATION IS NOT A NECESSARY ATTRIBUTE FOR SUCCESS

ABSTRACT

Research on Small to medium-sized enterprises (SMEs) has mostly focused on the underlying entrepreneurial behavior of the owner but ignores related organization-wide business culture attributes that may account for the firm's success. In fact, numerous SMEs will survive without explicit entrepreneurial orientation. To understand this phenomenon we interviewed 29 owners and senior leaders of SMEs and examined the interrelatedness of the firm's cultural traits to business performance. We found that while many SMEs manifest entrepreneurial style of leadership, it is often other cultural traits such as employee empowerment, playfulness, and situated learning that contribute to innovation and firm performance. This discovery is important for small to medium-sized business leaders in that one need not be "entrepreneurial" to be a successful, innovative SME firm and that entrepreneurial behavior itself may not be sufficient in order to achieve success.

Keywords: Small to medium-sized enterprises; SME; entrepreneurial orientation; empowerment; playfulness; learning; culture

INTRODUCTION

In the US, small to medium-sized enterprises (SMEs) account for over half of non-farm GDP (Small Business Administration, 2014), make up 99% of all firms, constitute half the employment in the US, and from 1993–2009 generated 65% of net new jobs (US Census Bureau, 2013). The operation of any sized firm makes use of the talents of individuals; yet most research on strategic human resource management—the emergent field studying the concept—has occurred in just the past 35 years, with findings showing it to be a critical component of overall firm success (Lengnick-Hall, Lengnick-Hall, Andrade, & Drake, 2009) and a source of competitive advantage (Combs, Yongmei, Hall, & Ketchen, 2006). However, the study of strategic human resource practices in SMEs has been largely ignored or inadequate (Heneman, Tansky, & Camp, 2000; Jack, Hyman, & Osborne, 2006). Interestingly, despite the economic impact of small firms in the US, much of the research on SMEs has been outside the US (Ram & Edwards, 2003), with many studies showing them to be highly complex systems that are difficult to understand and measure (Simpson, Padmore, & Newman, 2012). While larger firms usually have formal human resource programs, SMEs tend to have scarce resources and are unable to implement formal strategic human resource practices even though implementing such practices in SMEs has been shown to improve firm performance (Sels et al., 2006).

An extension of strategic human resource practice is the study of why and how people are led or act within a firm. This can be described broadly as organizational culture—a term first employed by Lewin (Lewin, Lippitt, & White, 1939). Since Lewin's time, multiple efforts have been put forth to define exactly what such culture is. In general, it may be summed up as an interdependent evolution of purpose, meaning, normative patterns, and

systems of leadership that constantly evolve within the firm (Pettigrew, 1979). A recent meta-analysis reviewing culture as a predictor of innovation suggested that it is now common sense to recognize that organizational culture is related to innovation yet also found that as many as 40 different variables are linked to said innovation (Büschgens, Bausch, & Balkin, 2013). As with strategic human resource management, the research on firm culture in the context of SMEs is scant (Stoica, Liao, & Welsch, 2004).

SME owners and senior leaders are often viewed as entrepreneurs, yet there is a significant difference between entrepreneurial behavior and simply being a small business owner (Carland, Hoy, Boulton, & Carland, 1984; Runyan, Droge, & Swinney, 2008). Entrepreneurial orientation dimensions of autonomy, innovativeness, risk taking, proactiveness and competitive aggression have been studied from varying viewpoints, including the SME context, on its impact on firm innovation and performance; however, those efforts do not assess what other culture-related variables may be antecedent or those that perhaps mediate such outcomes (Kreiser, Marino, Kuratko, & Weaver, 2013).

In order to gain more insight into the role of ‘culture’ in the performance and innovation of SMEs, we conducted a qualitative inquiry. During the inquiry, we interviewed 29 senior leaders of SMEs to address our research question: what combinations of strategic human resource management and cultural factors are most prevalent in contributing to firm performance and innovation in SMEs and if such factors contribute to firm performance and innovation in the absence of entrepreneurial orientation. As Hill (Hill & Tiu Wright, 2001) argues, SMEs are “different” from larger firms and require a complex and nuanced research approach such as gained through using a qualitative method. Further, the culture of a firm

can be better assessed using a qualitative method whereby shared values between the firm's owners and its employees can be deeply probed (Haugh & McKee, 2004).

The organization of this paper will be as follows. First we provide support for the need to conduct more research in the small to medium-sized firm context. Second, we introduce strategic human resource management and theories of high-performance work systems. Having established the theoretical foundation of the importance of strategic human resource management we review the roles of both culture and entrepreneurial orientation. Finally, we report methods used in the qualitative study, summarize its findings, and discuss their implications for practitioners and future scholarship.

LITERATURE REVIEW

Research and the Small to Medium-Sized Enterprise (SME)

Most research on SMEs has been done outside the US—particularly in the UK (Ram & Edwards, 2003). A number of international works have focused on small entrepreneurial firms, particularly those poised for growth (Barrett & Mayson, 2007; Mazzarol, Reboud, & Soutar, 2009). For example, the Barrett and Mayson (2007) study used firms at what would be defined as the micro-level SMEs in the US (less than ten employees); the Mazzarol et al. (2009) study, while well-structured, involved only SME owners enrolled in a University course specific to growth. In a special issue of *Human Resource Management*, the rise of interest in SMEs has been noted calling for more research, given the scarcity of existing thought (Huselid, 2003)—a condition seen as treating SMEs like second-class citizens, despite their enormous economic influence (Tansky & Heneman, 2003). Hornsby also noted that most work on SMEs has been conducted outside the US, and given the variety of legal and cultural dissimilarities, such research is not generalizable to US-based SMEs (Hornsby &

Kuratko, 2003). Another comprehensive analysis of research specific to SMEs found only a few dozen empirical studies about SMEs—mainly staffing or compensation focused (Cardon & Stevens, 2004).

Strategic Human Resource Management

An overarching term used in both academic and business literature to describe the management focus on personnel is *strategic human resource management* or SHRM. Strategic human resource management can be described as conscious, strategic processes involving employees that seek to improve the firm's performance or lead to a sustained competitive advantage (Collings & Mellahi, 2009). The idea that critical resources within a firm go beyond its physical products or assets is well chronicled by Wernerfelt (1984) and refined by Barney and Wright (1998). The resource-based view therefore often specifies the constellation of human resources as having rare, inimitable, non-substitutable and valuable effects and thus form a cornerstone to sustained competitive advantage (Barney & Wright, 1998). Accordingly, Pfeffer (1998) suggested seven ideals that make organizations successful—all based on human resource activity.

The challenge to the field of strategic human resource management, however, has been that most of its related theories are based and tested on large firms, a context that rarely applies to the smaller firms (Koch & De Kok, 1999; Mazzarol, 2003; Sels et al., 2006). Consistent with his earlier work, Hayton (2005) found a consensus on the importance of strategic human resource management, but a paucity of empirical work specific to SMEs and incoherent findings. SMEs have been shown to practice strategic human resource management, but it is often informal and lacks a strategic component (Hargis & Bradley III, 2011). A follow-up study of SMEs conducted in 2003, based on an initial project in 1990,

found that despite SME owners and managers sharing common concerns about strategic human resource practices, very little changed between the study periods, which the authors attributed to the paucity of SME theory and impracticality of applying work done within larger firms (Hornsby & Kuratko, 2003).

In 2000, a comprehensive review of the literature surrounding SMEs discovered a mere 17 articles that used statistical analysis to derive theory with all of them narrowly focusing on human resource practices such as hiring, compensation or unique matters like unions, gender or personnel costs or exporting jobs (Heneman et al., 2000) but not a single one explored culture. Qualitative approaches have however uncovered richer data that convey the significance of strategic management of human resources in SMEs—but finding that small firm leaders were less interested in traditional human resource practices, like those noted in Heneman's review, rather were more interested in matching employee skills with the cultural attributes of the organization (Heneman et al., 2000).

High Performance Work Systems (HPWS)

A significant theory developed around strategic human resource management is High Performance Work Systems. In the mid-1990s, Mark Huselid confirmed that High Performance Work Systems (HPWS) had significant positive impacts on employee outcomes such as turnover and productivity while greatly enhancing short and long-term financial performance of the firm (Huselid, 1995). A meta-analysis of various HPWS studies identified up to 22 components of HPWS, but further analysis refined that list to the strongest consensus around 13 practices: incentive compensation, training, compensation level, participation, selectivity, internal promotion, HR planning, flexible work, performance appraisal, grievance procedures, teams, information sharing, and employment security

(Combs et al., 2006). As a result of Huselid's work, strategic human resource management has been identified as a critical corporate function in any sized firm became clearer (Becker, Huselid, Pickus, & Spratt, 1997). Over the years, HPWS has been expanded and defined in other ways such as high commitment or high involvement. But regardless of the approach used, the body of work for nearly 20 years since Huselid's seminal piece has reached a consensus that such systems do indeed lead to improved firm performance (Pfeffer, 2007).

Work on HPWS has been expanded to include when such systems have the greatest impact. Appelbaum (2000) suggested that HPWS works best when employees are engaged and given responsibility. A detailed study of the variants of HPWS uncovered that not each of the practices were necessary under different conditions and thus HPWS was context dependent with each component taking on more or less explanatory role depending on the industry, country or even perspective of the business managers versus workers; yet the study did lead to the conclusion that worker engagement was critical in each of the contexts reviewed (Boxall & Macky, 2009). HPWS was also found to apply in SMEs, suggesting that such firms can extend their growth stages by using such systems while not using such a system might delay or inhibit success (Ciavarella, 2003). The presence of HPWS, particularly when a human resource manager is present, has been shown to improve performance of SMEs (Kerr, Way, & Thacker, 2007). A study of 119 young entrepreneurs revealed that when HPWS and employee engagement philosophies were present, growth was more significant than when they were not (Messersmith & Wales, 2013). A meta-analysis of 92 studies confirmed that, indeed, the presence of HPWS improved organizational performance but left open the impact of context-specific variables (Combs et al., 2006). Regardless of the specific nomenclature used, such theoretical systems generally rely on

common things such as employment security, selective hiring, specific compensation structure, and extensive training (Pfeffer, 2007; Sels et al., 2006), all of which we find to be overly process- and tool-oriented and missing the impacts of culture. As Boxall (2009) noted, HPWS relies on different variables based on context and we believe that there are deeper cultural attributes within SMEs outside of HPWS variables that will drive performance in combination with strategic human resource management methods employed such as HPWS. Our research will seek to add to HPWS theory by identifying salient cultural characteristics of SMEs that are likely to lead to firm performance and innovation.

Organizational Culture

Briefly stated organizational culture can be summarized as a shared set of values, beliefs, assumptions and work systems that are embedded within an organization and perpetuates through continued communication of such values to both existing organizational members and newcomers (Schein, 2010). A recent review of top journals found only 10 articles that studied organizational climate directly and as an aggregate construct (Schneider, Ehrhart, & Macey, 2013) Another recent meta-analysis of 46 studies show, once again, that most work on SMEs has been done in the last 15 years and found that the innovation is context dependent, particularly influenced by culture (Rosenbusch, Brinckmann, & Bausch, 2011). Cultural dimensions play a key role in shaping an innovative work environment both at the individual and firm level and often include specific attributes such as empowerment (Çakar & Ertürk, 2010)

Entrepreneurial Orientation

An increase in the amount of entrepreneurial orientation shown within a small to medium-sized firm has been positively correlated with better firm outcomes (Wiklund, 1999;

Zahra & Covin, 1993). For our purposes, we consider entrepreneurial orientation to be a combination of innovativeness and related strong proclivity to introduce new products (Covin & Slevin, 1991) along with a proactive nature whereby the firm seeks to get ahead of the competition by anticipating future demand (Lumpkin & Dess, 2001) and related willingness to commit large resource commitments that involve a low probability of success (Miller & Friesen, 1982).

Entrepreneurial Orientation has been shown in multiple studies to lead to small to medium-sized firm success. Several of those studies however suggest that direct effects alone are an incomplete view (Wang, 2008). Entrepreneurial behaviors are also difficult to define and may include both behavioral and firm culture characteristics (Lumpkin & Dess, 1996). Further, entrepreneurial orientation's several dimensions, may each contribute differently to firm performance (Kreiser et al., 2013) suggesting there may be other factors besides entrepreneurial orientation that leads to firm performance. Gibb (1999) notes that while entrepreneurial orientation development is important to small to medium-sized firm success, equal attention must also be given to firm culture, and that too often the separate concepts of entrepreneurial climate and culture are confused and in need of definition. Finally, what is also understood is that not all SMEs are necessarily "entrepreneurial." They are merely small business organizations with either form of operating, finding both success and failure (Runyan et al., 2008).

RESEARCH DESIGN

Methodology

We conducted a qualitative inquiry asking what strategic human resource management and cultural factors are most prevalent in SMEs that contribute to firm

innovation and performance and whether such factors require the presence of entrepreneurial orientation to be realized. Our qualitative study was undertaken using semi-structured interviews and grounded theory (Corbin, Strauss, & Strauss, 2008). Grounded theory is an explorative, iterative, and cumulative way of building theory (Glaser & Strauss, 1977). The main features of this approach involve theoretical sampling and the constant comparison of data. Constant comparison is a rigorous method of analysis that involves constant interactions with the data (Maxwell, 2005) to compare and contrast emerging ideas and themes with already emergent ones. Simultaneous collection and processing of data (Lincoln & Guba, 1985: 335) leads to the generation of theory firmly grounded in the data as received. Theoretical sampling refers to ongoing decisions about who to interview next and how. As the constant comparison of data yields insights about the phenomena of interest, the sample and the interview protocol may be refined.

A qualitative approach using grounded theory was deemed appropriate for the proposed research as prior empirical studies on the behaviors of SME owners or top executives has been limited (Jack et al., 2006). Qualitative studies have emerged in the last 15 years to offer a deeper insight into organizational behaviors. Culture of a firm was assessed using qualitative method whereby shared values between the firm's owners and its employees could be deeply understood (Haugh & McKee, 2004). To gain new and unbiased insights from our interviews, we respected the standard principles of grounded theory. Our interview process was not been influenced by the reviewed literature and theories nor biased by preconceived notions or opinions gathered through preliminary interviews or our practitioner experience. We used open-ended questions to elicit rich narratives of respondents' lived experiences (Maxwell, 2005: 22), that described their interpretations and

understanding of strategic human resource management and general firm culture by sharing specific past firm initiatives and employee interactions. As stories were revealed we used probing follow-up questions to delve deeper into specifics of what strategic human resource practices they regularly employed as well as what they believed to be critical cultural factors related to either innovation or overall firm performance.

Sample

The sample was of 29 senior executives/owners of SMEs across three sectors, including manufacturing, retail, and services located in several geographic areas of the United States, primarily the Midwest and Southeast. One person was interviewed at each firm to gain insights from the owner or senior most leader as to how their organization functioned or was intended to function. We chose this approach given the nature of SMEs in that they are smaller firms often started by those individuals, and in any case, have the broadest perspective in how the firm operates (Jack et al., 2006). Further, from a pragmatic viewpoint (Teddlie & Tashakkori, 2009), it would be difficult to identify and arrange to meet those in the organization other than the owner or senior most executives that are likely to have a broad-based view of the firm. We simply had no way of easily identifying or validating other persons in a SME whose perspectives broadly reveal what is taking place in the SME. We also required that the firms we studied be in existence longer than five years as we wanted to examine firms that had longevity (Hayton, 2003) in order to examine longer-term impact of a firm's success factors.

In recruiting interviewees, we randomly selected from our network of contacts based on availability and willingness to be interviewed. The SME leaders we interviewed described a culture where entrepreneurial spirit was emphasized. Those firms were willing to take risks,

be flexible, and try new things. All interviews were conducted in person. Related field observations added richness to the interviews. SMEs chosen were located in the US and defined as employing fewer than 1,000 employees based on the Small Business Administration *Table for Small Business Size Standards* (Small Business Administration, 2014). We excluded micro businesses (less than ten employees) given that there are differences across SMEs by size. We followed Rutherford's analysis that firms under ten employees are uniquely different (Rutherford, McMullen, & Oswald, 2001). In our study, firm sizes ranged from 12–875 people with a mean of 148 and median of 70, generally meeting the definition of a medium-sized firm used by (US Census Bureau, 2013). Revenues ranged from $3–200 million USD with an average of $32.6 million and median of $15 million USD. All firms had experienced absolute revenue growth since the 2008 recession averaging 117% with a median of 33%. All but three of the firms had experienced absolute employee growth since the 2008 recession with an average of 85% growth with median of 34%.

All of the participants had post-high school degrees with half of them having obtained advanced college degrees. Over 50% of small business owners have a college degree and a recent survey by Forbes indicated 68% of SME owners were college educated. When taking out the micro-firms with less than ten employees and certain labor-intensive firms the percentage is much higher (Small Business Administration, 2014), we conclude that our sample is a reasonable approximation of the average SME.

Data Collection

Data was collected between April and October of 2014. The principal data collection method was semi-structured interviews lasting approximately 60 minutes in length. The

interview's focus was on the owner or senior executives' experience in developing their strategic human resource management and business culture philosophies, what practices are or have been employed, and how the leader directs or supervises his/her key personnel. The questions were open-ended to elicit rich and specific narratives such as stories involving both formal and informal human resource practices or application of culture based principals. The researcher used probes to clarify and amplify responses such as asking why they favored certain human resource practices over other possibilities and asking for specific examples of how they perpetuated culture. For example, several firms discussed how they sponsored advanced employee education even though it was not a written policy while other shared details of specific instances where they empowered staff to make decisions without the owner's approval. The overall goal was to gather experience-based practitioner perspectives on the organizational factors that influenced the firm's approach to strategic human resource management and execution of its strategic initiatives in a complex business environment. The interview questions used are listed in the Appendix.

All interviews were conducted face-to-face in a comfortable, convenient and private setting and were digitally recorded. Participants were informed that the data collected is confidential and that the interview may be stopped by them at any time. The researcher also took field notes during the interview to capture key ideas of the discussion and record non-verbal feedback.

Data Analysis

Consistent with a grounded theory approach, data analysis commenced simultaneously with data collection. The audio recordings were listened to and the transcripts read several times. Three stages of detailed coding were used. First, all of the transcripts were

"open-coded," a process that requires the researcher to identify every fragment of data with potential interest (Saldaña, 2013). These were roughly labeled and compared to and categorized with similar fragments from other interviews with a total of nearly 2,600 codable moments across 840 different coding words or statements. In a second phase of coding ("axial coding"), these categories were further redefined as ideas and themes as they began to emerge from the data (Corbin et al., 2008). The total number of coding types was condensed to 400 while retaining all 2,600 individual comments a summary of which can be found in Table 1. Finally, in the third phase ("selective coding"), we drilled down to key categories and themes that have yielded our findings. A total of ten (10) categories with 24 sub themes emerged however for the final analysis we focused on eight (8) broad themes and 18 sub themes utilizing 184 of the 400 code types, which accounted for 1,592 of the 2,600 initial codable moments. The unused codes were generally focused on topics outside the scope of this current work, namely mentorship of the interviewee, conversation surrounding diversity and a wide range of matters specific to the individual firms.

The analysis results were entered into qualitative data analysis software NVivo and exported to Excel for analysis. Throughout this process, the researcher composed interpretative memos (Maxwell, 2005: 13) and notes reflecting "the mental dialog" between the data and the researcher" (Corbin et al., 2008: 169). Also throughout out process, the researcher was continually guided back to the literature to inform developing ideas and themes. In order to compare and contrast groups we divided data into eight demographic groupings including education level, gender, industry, region, revenue level, employee headcount, absolute revenue growth since the 2008 recession and absolute employee headcount growth since the 2008 recession, all summarized in Table 1.

TABLE 1
Codes and Themes

Theme	References	Sources
A = Autonomy	215	115
CP1 = Culture – Fun & Family	65	37
CP2 = Culture – Employee Attitudes	45	37
CP3 = Culture – Entrepreneurial	60	28
CP4 = Culture – Management	46	31
D1 = Development – Economic	39	27
D2 = Development – Hiring/Promotion	106	73
D3 = Development – Concepts	103	76
D4 = Development – Assessing	41	24
E = Employee Events	46	34
G = Guidance	165	104
I1 = Interaction – Collaborating	148	106
I2 = Interaction – Recognition	54	33
I3 = Interaction – Observation	47	32
I4 = Interaction – Feedback	90	47
L = Leadership Constructs	180	109
V = Values	45	24
V1 = Values – Employees	97	83

FINDINGS

Summary

This section details five key findings from the study. The first is that small to medium-sized firms' owners and leaders try to create an entrepreneurial environment. What they mean by an entrepreneurial environment is one where there is risk taking, significant idea generation and ventures into unknown businesses or products often founded on non-quantitative judgment. The next three findings relate to specific cultural traits of the environment including empowerment, playfulness, and knowledge sharing. *Empowerment* was characterized as allowing staff to make their own decisions or take ideas and run with them without always seeking ownership approval. *Playfulness* was described as creating a workspace where employees were encouraged to laugh and have fun while allowing a comfortable and less structured work routine. To our participant's knowledge, or *Knowledge*

sharing meant creating structures or work processes that caused information to be shared or widely known and ensuring that owners and all employees gave one another regular feedback. The last finding is that SMEs did utilize large firm-styled strategic human resource practices, particularly several components of high-performance work systems, albeit informally. Details of these findings follow.

Finding 1: Small to medium-sized enterprise leaders believe in an entrepreneurial environment

Nearly every interviewee specifically used some form of the word "entrepreneur". Additionally, nearly every interviewee offered descriptors to define their view of what entrepreneur meant including commentary on entrepreneurial culture, spirit, risk taking and developing new products or processes. While we did not use the words "leader", "leadership", or "entrepreneur" in our questions the respondents used "leadership" at least 180 times while some form of the word entrepreneur was used over 100 times. While the general term of *leadership* may not always fit into what we some describe as entrepreneurial, when comparing the transcripts from one case to the next and comparing with field notes, it was clear that most of the respondents were talking about were entrepreneurial orientations or the ability of their teams to be flexible and think freely while also taking chances. Some went deeper to say one must try new things and take risks or just go with your gut.

It was evident from the site visits that employees on those sites seemed to have freedom and flexibility. Some had flexible work hours or worked at home while others were allowed or encouraged to decorate work spaces. In one specific case, they had meetings six-eight times per year where they just dreamed up crazy ideas for the business. Some supporting comments:

> The nice thing about it being kind of an entrepreneurial selfish organization is that, you have a goal, you have a clear goal. And our goal is you got to find the people that are going to continue to build and grow this business, period.
>
> You know, in these kinds of tertiary markets there isn't a lot of data. So guess what, you have to feel it, right? That's what entrepreneurs do.
>
> Within months of our existence, we had offices in [5 international cities] and so it was very unusual. I think at the time it was considered a very—by some, including me on some days, a risky strategy, right, because it's putting a lot of resources at it that can be a costly strategy.

What the previous examples conveyed were efforts at trying things that had not been tried before or did not have quantitative support, key concepts of entrepreneurial thinking. What we also found, however, was often the opposite whereby some of the people we interviewed spoke of highly detailed planning exercises, budgets, and tightly controlled processes.

Entrepreneurial leadership concepts were prominent across nearly many of the firms we interviewed. Whereas SME owners and senior leaders could be content in their role and utilize personnel simply as transactional drones we found that being a leader and inspiring entrepreneurialism was an important part of how the leaders acted. Some supporting comments:

> So I got a little thing sitting over here; you know, it's one of these leadership's sayings—'Leader takes people to a place that they have never been.' I agree with that, but also would add on to that saying a great leader also has the people take him or her.
>
> But every single person who worked here said, 'What are you, crazy? We can't take that on.' And I said, 'Sure we can.' I was honest with them. I told them it could take us up to a year to get all their stores covered, but yes, we can. And I think that that kind of lit everybody on fire. I think it scared the hell out of everybody. But I think it lit everybody on fire, like, oh, my God. And I said, 'We just captured the biggest accounts in the country and we can do this.'

While here again we recognized signs of entrepreneurial spirit, in the second quote, it was the owner only who had the imagination, not the staff, and while the staff followed the owners lead, there was more of a cultural spirit within the firm than simply being entrepreneurial. This context was the case with over half of our participants.

Finding 2: Small to medium-sized enterprise leaders empower their people

Nearly all interviewees discussed forms of empowering their staff by granting autonomy and authority to their teams and allowing people to have flexibility, experiment with ideas, and do their jobs as they best saw fit. Encouraging co-workers to engage each other, trusting them to do the right thing and even allow staff to represent the firm just like an owner was a growth step for the employee and way for the firm to be competitive. Twenty-one of the interviewees specifically stated you have to allow people to do their jobs while over half used the exact words "empower people" and almost all used nuances of that term such as allowing flexibility or trusting to do the right thing. Some supporting comments:

> So you give that basic level of support and then you get the right people and then let those people take it and do their thing, and you give them the atmosphere that they need to flourish.

> And we always tell people, if you wait around for me or for … or … or anyone to tell you what to do, you are going to get behind. We want people to go out there and carve your own niche, make your own place here.

Nearly all participants engaged in some form of empowerment that led to strategy development and goal setting outside the owner's desk. In firm's communications could be an issue, but with SMEs, there may not be a formal need for budgets and strategic plans. Yet our subjects all had some form of setting goals and expectations and recognized that people wanted and needed to know the vision of the firm and be a part of vision creation process. It was common for all participants to set organizational goals and expectations and share a

vision with staff, then allow them flexibility in executing on that vision. Some noted how important it was to share goals and have a defined strategy while letting people know what was expected of them so they could then do things on their own without direct supervision. Several used some form of open book management where they openly displayed goals and progress towards their achievement. Each of these constituted forms of information sharing that allowed people to make the best decisions in alignment with the firm's objectives. Some supporting comments:

> And so I would tell her what I want in terms of what I saw as a vision and then she would try to go ahead and do that.
>
> I'm not going to have 12 45-minute meetings to talk about individual plans; we're going to get together as a team for a half-day meeting once a month to talk about an integrated plan and we're only going to have one plan. I am going to help you guys to champion the plan together, but enough of this siloed stuff.

Finding 3: Small to medium-sized enterprise leaders create a playful work culture

Whether it is treating others with respect or getting rid of employees who do not fit, SMEs sought employees who shared their values and those of fellow workers. Not only is there a belief that people form a huge asset, but you convey that by treating people like they were part of the business purpose. Ultimately people will want to work at places where they are treated better, and they will work harder in that environment. Over half our respondents used terms like "having fun at work" or "having fun together" and many used references to family, even though only three were actually family businesses. These SMEs spoke often about 'family' culture. After all, the employee population was small, usually in a single location and the core team had worked together for many years. However, we also found that fun played a larger role in promoting not just a family like culture but also one where people

enjoyed being at work. The camaraderie that was created through the process allowed for flexibility and accountability. Some supporting comments:

> You know, just little things that don't cost much in the grand scheme of dollars and cents, but just basically say that people are important". "But our customer relationships were awesome, we treated our vendors respectfully. We treated the employees well and as the business started to grow, an interesting dynamic was taking place.
>
> You got to find people that enjoy being around people, that have fun. I love working for people that make you laugh and you enjoy coming to work.
>
> Interviewer: "So talk about fun, what does that mean?" Interviewee: "What it means is that we want to make sure that people enjoy what they do. We want people to work hard. We want people to demand a lot of themselves and of each other, but at the end of the day if it's not fun, nobody is going to do it, they are not going to keep coming back. So we don't want to forget to have fun as well."

Not only did the SME want to have a specific playful culture following family like considerations, but the leaders recognize that such a culture needs to be actively managed. Whether it is the constant sharing of values, slogans or re-enforcing the desired culture, SME leaders know they must be alert to the culture and any changes that may occasionally occur. Some supporting comments:

> So that's what we try and do and it has gotten harder and harder the more we've grown. Going and cooking barbeque takes two full days, so if you multiply it 20, we are losing a lot of time cooking, but—Yeah, it is a lot of time. But we do it —as we grow, it's getting harder and harder, but you almost got to do it.

Finding 4: Small to medium-sized enterprise leaders promote knowledge sharing

Nearly all interviewees spoke how employees shared knowledge and learned constantly. Leaders promoted the concept of regular feedback and collaborating and spoke to numerous ways in which objectives and goal attainment were communicated throughout the organization. It was not enough for just the owners to know things; rather, it was believed

that information must be shared and that all employees must learn. Some supporting comments:

> …but more importantly, it was also her ability to be able to grow more knowledge in an area that she didn't realize how much she enjoyed—in disease states. I challenged her to learn more about specific disease states, and then go talk to a physician about it.

> I've also watched people really do things that are out of their comfort zone and just love it. So that's why—I think if you ask people, what's the thing she says the most, it would be that you need to get out of your comfort zone every day, that's where the learning occurs. So I've watched, I caused people to get out of their comfort zone and they've learned…

It might be one thing to collaborate intentionally and provide employee recognition when such praise is earned but respondents also believed that listening to and even seeking feedback was critical. Many participants sought feedback while others made it a point of emphasis to listen more and talk less. A few interviewees noted that they liked it when employees bring solutions to them versus just the problem and a couple others stated that people will seek ways to improve the firm when they know they are listened to. Some supporting comments:

> ...and like that one person now can come to my office and say, hey, I got to give you some feedback. And they know how I like to receive feedback and they know that I can take the feedback, and the way they deliver it…

> And so I've tried to spend the latter part or I guess the second half of my career listening a lot more than I talk and just trying to understand what it is that motivates people…get around the project, I try and do it once a month. As I sit down with him, I'll say, 'What can I do to help you, what do you need to do your job?' And it's amazing we sit down with someone, and he has got some pretty good ideas, but no one has ever listened to him before.

Our subjects were clear that feedback was important. But it was equally important as when to time the feedback. On-the-spot feedback was deemed critical, but being consistent

and regular with feedback even more so. And as alluded to by over half the participants, make sure to follow up on commitments and be specific. Some supporting comments:

> But what I also find is that when people make a suggestion and you follow through with it, they now start to think it's mine. That's mine. They take ownership of it. And it all becomes a -- and then they're looking for other ways to improve the company. They say 'they're listening.'

> I mean, you got to be able to communicate particularly with the new people. And if you can't communicate with the new people, you can't really expect a whole lot out of them or think they're going to be around long term and really get it.

Regular interaction with all employees was voiced by just about all subjects and we combine these processes as an element of learning. The four sub-themes around this topic included collaborating, recognition, observation, and feedback. Collaboration and direct employee engagement were cited by nearly every participant. Whether it be collaborating on how to tackle a problem, conducting off-site strategy sessions, encouraging ideas or making decisions as a team, it was clear that these SMEs cared deeply about the level of collaboration which leads to individual and organizational learning. Constant information sharing and vision setting allowed the owners to let go of daily activities allowed employees to take actions in accordance with a larger plan. Some supporting comments:

> It's 20 or 30 minutes a month, but it's every month and everybody knows that we're going to gather, we're going to do this, because it's important that, we hear each other, we look at each other and can relate to each other.

> So it makes my job much easier to know that they've given consideration, they have a suggestion. I most of the time follow their suggestion, sometimes I challenged a couple of those suggestions and we all seem to leave the meeting with an affirmative consensus of direction.

Finding 5: Small to medium-sized enterprise leaders employ large firm style strategic human resource management practices

In reviewing the transcripts, we looked for codes that related to High Performance Work Systems and found many ideas that were related to HPWS but in only a few cases was there evidence that any formal system was in place such as a detailed training program, employee development plans or detailed writing human resource policies covering such variable. In fact, most often our respondents spoke to informal approaches and ad hoc systems for strategic human resource management often suggesting support for certain concepts even though they were not formalized as a way of doing business nor applied evenly across all employees.

SMEs tend to have ways of identifying key personnel and future leaders and then investing in them in terms of money, time, responsibility, and coaching. Well over half the firms discussed investments in training, both internal and by using external sources such as speakers, consultants, seminars, and classes, or formal education curriculum. Many leaders discussed specific efforts seeking education opportunities for staff or supporting employee choices for self-improvement, sometimes even when it was not specific to the business. Leaders also believed strongly in coaching, career planning, and working to make people better than when they arrived. In most of the cases where this was conveyed it was done informally and on an ad hoc basis. There were occasionally some basic personnel policies, but SME leaders were more often to apply educational and employee development plans without regard to formal structures.

Employee development was also noted to occur as part of the hiring or promotion process, again generally through informal practices. Over half the firms specifically noted they promoted from within and others spoke of developing personnel for growth or

promotions, teaching new skills, and keeping high potentials challenged albeit without formal human resource plans such as those found in high-performance work systems. Surprising to some degree was that most leaders referred to their hiring practices as an inclusive process where they hired specifically for values and behaviors more so than just for a specific skill, although this war rely if ever a formalized policy practice. The hiring process was also seen as an avenue for finding good people that fit the existing or desired culture, but hiring practices varied from position to position even within the same firm. To that end, nearly all the firms had informal policies of getting rid of non-team players, those that did not fit the culture or were overly negative. In contrast, emphasis was placed on not allowing good people to leave the company. Regular conversations were conducted among managers discussing up and comers or identifying high potentials. Some supporting comments:

> If we're going to grow people and grow leaders, everybody should have a personal development plan.
>
> And so you know, you pour into people who really start to get those things and you can almost see the light bulb going on"…. you get these people that just kind of rise to the challenge. And in this particular case, when he went from shipper receiver to level one tech, we sent him to [school name], and we invested in him.
>
> So in a sense is it informal, I guess, but formally I have addressed it. In other words, it's an initiative that's so big for us I have it as part of our overall strategic business plan. It literally is on the—when I go to the PowerPoint focusing on our people, recognizing that they're the greatest asset we have, and then finding ways to constantly improve, empower, and educate them is literally part of our business plan, that's in there.
>
> Most of the people that we have here have all kind of worked their way up through the system.
>
> Training and getting people with the right skills is really key.

Employee recognition, especially communicated success about others than themselves was a resounding theme. The idea that everyone likes to be acknowledged was a common thread as was the idea of providing praise to those who have earned it. Some supporting comments:

> I realized I love helping others and I was more passionate about when other people were successful than my own success.

> Well, I sat down with her, and I thanked her afterwards. Number one, I said, 'What you did was pretty phenomenal because I did not ask you to do all these different versions, all these different copies.'

DISCUSSION

Our study contributes to the small, yet growing body of knowledge focused on SMEs that has had longevity and success (Hayton, 2005). We first extend the theory of high performance work systems and strategic human resource management by linking specific cultural attributes to those systems, whether formal or informal, that lead to firm innovation and performance. For example we found that almost all the firms we spoke to informally used a few variants of HPWS like hiring policies or training systems but combined those with cultural attributes likes training in a specific part of the business so they could be empowered in that business unit or hiring for culture fit such as people that they believed would be fun and playful. Second, we suggest that SMEs do not require entrepreneurial orientation to thrive; rather, its existence, along with other culture-related attributes, may lead to improved performance. For example, several of our respondents firms did not develop new products or take any risks, traits associated with entrepreneurial orientation, yet focused on refining existing products and processes by empowering employees to make improvements, leading their organization in sharing information and creating a fun atmosphere to work.

Lastly, we provide a platform for examining the level and extent to which the cultural constructs of entrepreneurial behavior, empowerment, playfulness, and learning work together to cause SMEs' innovativeness and positive performance outcomes.

A firm may have so-called entrepreneurial founder(s) or leader(s), but in order to quickly adapt to changing business conditions and keep larger competitors from destroying the small to medium-sized firm's market share, those leaders must seek out, support and develop more others around them to grow and remain viable—a task made more difficult within small to medium-sized firms, given their relative human resource informality (Kishore, Majumdar, & Kiran, 2012). As the SME grows, more employees become a part of the puzzle. Keeping the growing group on the same page and having them want to be part of things about what the company does was important as leaders developed their company growth. By working to establish a culture where employees take pride in their work, believe in what they are doing and are excited about their jobs, hard work becomes the norm and leads to greater success. For the most part leadership traits were philosophical in nature, describing their beliefs in what leaders ought to be and how they ought to act. We identified these codes as part of the an entrepreneurial culture and connect the concept to that of Renko and others that have defined "entrepreneurial leadership" as a senior leaders way of influencing employees towards recognizing innovations and exploiting opportunities that fit with the organization's goals (Renko, El Tarabishy, Carsrud, & Brännback, 2015). However, while evidence of this behavior was found in many of our firms, it was not the only trait we found and in some cases it was secondary or non-existent. We posit that entrepreneurial orientation alone is not the only ingredient of a successful small business. It may not even need to be present for a SME to succeed (Wang, 2008). In the case of one of the more

successful firms in our study in terms of revenue growth, the entrepreneurial style was not evident at all. Rather, the firm relied on planned patterns of linking organizational strategies with human resource activities (Way & Johnson, 2005). In another, while its owner had entrepreneurial leanings and was able to completely overhaul the business strategy of a long-standing firm, he used his approach to teach other managers to take ownership of their actions and be proactive in problem-solving or process improvements. This approach allowed his firm to lead his industry in financial performance for over a decade without him having to be the sole executor of business tactics. Despite their sustained success over many decades, the actions of both the owner and top staff were hardly prototypical of entrepreneurial behavior. Rather they were mostly process-related actions such as best practices and continuous improvement versus new product or process introduction and risk taking which is more consistent with Runyan's depiction of "small business owners" than entrepreneurial orientation (Runyan et al., 2008)

Our data reveals that SME owners and senior leaders are actively engaged with their employees and adamant about culture development while sometimes exhibiting an entrepreneurial orientation. This supports what Gibb (1999) suggests in that while entrepreneurial orientation is useful it alone may not account for growth in small firms (Gibb, 1999). In terms of culture development our study indicates SME leaders empower their managers and staff allowing then a high level of autonomy supporting empowerment studies within small to medium-sized firms done outside the US. Additionally, the firms we spoke to consistently spoke about a fun and playful atmosphere that inspired creativity where most everyone was treated like family. Finally, we found that our SMEs did engage in various strategic human resource management practices, albeit often less structured or formal than

larger firms, including various forms of organizational learning. This may be seen as counter to claims that human resource theories tested in large firms do not apply to small firms (De Kok & den Hertog, 2006) and support the notion that having some form of strategic human resource management in smaller firms, even if informal, will lead to improved performance outcomes in certain contexts (Rosenbusch et al., 2011). In our study, all participants practiced one or several culture-related practices and regularly spoke to the need for managing their culture showing that not only were they aware of the value in doing so but consciously worked towards creating a positive work culture. Rather, the existence of one or more culture related traits were spoken to more often and were noted as reasons for the firm's success far more so than entrepreneurial culture.

Empowerment

Entrepreneurial orientation alone does not necessarily lead to SME firm success; rather, confirm additional cultural attributes must be at play (Gibb, 1999). One cultural construct impacting the ability of a firm to innovate is *empowerment* i.e. allowing those closest to the action to make decisions and keeping employees abreast of the most recent information available about the company and its markets (Denison, 2000). For our uses, we define empowerment consistent with Denison as “individuals have the authority, initiative, and ability to manage their own work. This creates a sense of ownership and responsibility toward the organization” (Denison, Janovics, Young, & Cho, 2006). Spreitzer (1995) has identified measures to identify workplace empowerment (Spreitzer, 1995). A recent meta-analysis shows that firms evidencing high-performance work practices that include collaboration and feedback, and elements of empowerment are positively associated with psychological empowerment measures that led to positive firm performance outcomes

(Seibert, Wang, & Courtright, 2011). However, the SME context has not been specifically taken into account in such studies. A recent study by Çakar did focused solely on small to medium-sized firms and found that empowerment was positively associated with innovation both at the firm and individual level (Çakar & Ertürk, 2010). We conceptualize that SMEs, both presently and in the future, will seek to employ a more empowerment-oriented strategy (Matlay & Szamosi, 2006).

The most notable cultural characteristics of our study was that of empowerment which received about 12% of all the codes. In order to innovate and grow their firms, small business owners eventually cannot do everything themselves. It would be impractical to think that any individual could tackle the escalating demands of multi-faceted, multi-location and vastly growing employee numbers without having others handle some of the decision making. One firm was started 10 years ago by three individuals in one location and now had several operations in multiple states with nearly 500 total personnel. It was not so much that the founders were necessarily entrepreneurial rather they learned that to grow their business they must empower others to take the lead in making critical business decisions. For example, the interviewee described the difficulty in continuing to do things that he believed made them successful like conducting employee cookouts and personally handing out bonuses. These are functions now passed along to business unit managers- a form of empowerment. Another firm that has grown from a two-person startup to over 60 employees noted how at the annual holiday party they can no longer have detailed conversations with each employee while getting to know their significant others. While they still have company-wide events, they now must focus more on the key managers to instill their cultural values to them which they expect to be passed on by the empowered managers to all levels of the

organization. These two cases confirmed that growth required empowerment while they found ways to keep their cultural values ongoing. This was accomplished by conveying trust to select individuals that then showed the rest of the firm that the owners knew they needed to empower others in order to prosper, and that required trust and collaboration. Such empowerment became an accepted norm leading to a firm level psychological empowerment whereby the owners did not just say people were empowered it was seen as actionable and believable (Spreitzer, 1995). This occurred regardless of whether the owners had entrepreneurial characteristics.

Playfulness

Playfulness can lead to organizational learning when individuals or teams are allowed to “play”, Through play organization’s member are more creative and can speed up their learning process through sparks of creativity created by play (Brown, 2009). Playfulness can also influence the firm’s ability to innovate, and share ideas, leading to enhanced performance and product innovation (Glynn & Webster, 1992). We define play as individual or collective engagement associated with work or an effort towards diversion from work which encourages creativity (Mainemelis & Ronson, 2006).The playful nature of employees is to engage one another through positive behaviors. We found little prior research on play within the SME context. Those that have been done were outside the US, such as in Taiwan (Chang, 2011) and New Zealand (Schoenberger-Orgad & McKie, 2005) or have been industry-specific such as software (Kikkas & Laanpere, 2009) and tourism (Wilkin, 2010).

Another way to drive sustained success in our SMEs was by promoting creativity. Our respondents did so by making their firms a fun place to work; they treated employees like family; found ways to have a fun atmosphere and demonstrated valuing one another as a

key firm obligation. In one case, the employees of a firm used the guiding principles of the firm to create workplace decorations of a select principle each month thereby reminding employees of that value. But then the staff applied that value in how they managed customers in a sort of self-organized fashion. Such self-organizing can lead to transformational change that then leads to firm innovation and sustained competitive advantage (Lichtenstein, 2000). Another firm owner encouraged employees to engage in laughter and banter with the customers. The advantage of doing this allowed for employees that were often hundreds or even thousands of miles away from their customer to make personal connections. When difficulties arose, the customers were noted to not be as surely and were willing to allow some flexibility to the company in resolving the matter. The owner also allowed those employees to solve problems so both the employees and customers knew they would work things out together in both good times and bad. This firm was the fastest growing firm in our study and while this particular owner showed entrepreneurial behavior, having started up several unique businesses in her career, it was her playful culture along with empowerment credited with the firm's success.

Organizational Learning

Organizations need to learn by accumulating knowledge gained from experience and refining that knowledge through iterative tests or transformations (Kolb, 2014). In this context, we define organizational learning as the dynamic process of individuals within the firm interpreting the environment and responding by learning causal relationships (Lee, Courtney, & O'Keefe, 1992) which inspires changes in organizational norms (Argyris & Schön, 1978). Accordingly, another key attribute to the firm's success is the ability of the firm to engage in learning styles that encourage open communication and sharing of

knowledge (Baker & Sinkula, 1999). Accordingly, SMEs that share information in an open and often less structured environment have been shown to outperform those that are hierarchical and closed (Stoica et al., 2004). Further, firms that have characteristics of a learning organization that include open communications and information sharing, risk taking, new idea promotion, and resource availability are more likely to innovate and adapt quickly to change (Kontoghiorghes, Awbre, & Feurig, 2005). Once again, however, we find scant literature specific to the SME context and what research has been done is often outside the US or industry specific (Alegre, Sengupta, & Lapiedra, 2013). So, there is a need to conduct research that is SME specific and applied to the US context. We posit that SMEs are expected to have some form of organizational learning in order to continue to succeed in a competitive marketplace (Jones & Macpherson, 2006).

In our 29 cases, nearly every respondent spoke to various ways of organizational learning or knowledge sharing. Whether it was sharing company vision, setting goals or providing constant feedback, the senior leader of our small to medium-sized firms believed they must be constantly connected to their employees and regularly share information. In some case learning was more formal such as through seminars or sending individual to trade schools or Universities but whatever the mechanism, the concept of improving oneself and sharing knowledge was consistent across our participants. In more than 75% of the cases we studied, knowledge sharing was a key aspect of culture more so than entrepreneurial style, if it even existed.

Lastly, the small firms in our study often used large firm strategic human resource management techniques, albeit in informal ways. Many firms used some common forms of human resource management like handbooks and general policies but they also regularly,

although not consistently, worked to make sure their employees were getting chances to grow professionally either through formal education or by engaging in activities like learning other parts of the business. For example, most all the firms had some form of tuition reimbursement and several firms allowed staff to advance their education through an MBA program that was not a formalized company benefit. Other firms brought in consultants to run seminars while many encouraged staff to take on challenging new job assignments in the firm. These actions appear counter to what Hargis suggests in that human resource initiatives were not “strategic” in nature (Hargis & Bradley III, 2011). More important still was the interactive way in which business goals and objectives were developed. Budgets and business plans, both formal and informal, were drafted interactively among team members and in many cases the goals and results of the organizations were shared throughout the business with as many employees as possible. Further, such goals included values that too were shared with all employees and made part of the overall organization's culture. Once again, while some firm’s owners and leaders conveyed entrepreneurial traits, others did not. Regardless of having those traits the concept of strategic human resource management and organizational learning were critical success factors.

CONCLUSION

Our study shows that while SMEs often exhibit some form of entrepreneurial style it is not required for firms to grow, sustain, or innovate. Further, it is not just the owner or senior leader alone that causes innovation or firm performance outcomes; rather, a collection of team members that work in environments evidencing the culture of empowerment, playfulness, and fun amid an atmosphere of organizational learning.

Our study is limited by only 29 samples and there may be significant differences within the sizes of firms defined as SMEs. Further, we were unable to study firms that failed rather all of our cases involved firms that have existed a minimum of five years, and all had absolute revenue growth during that period. We believe that future research might explore the extent to which each cultural attribute causes firm innovation and performance and what combination are most beneficial and identify more particularly whether cultural attributes are associated with firm innovation and performance in the absence of entrepreneurial orientation

APPENDIX
Interview Protocol

Introduction (interviewer): "*Hello (name_____). Thank you so much for taking the time to meet with me today. I really appreciate it. Before getting started, there are a couple of things I would like to cover."*

Purpose and Format for the Interview (Interviewer): "*As a current student in the Case Western Reserve University Doctorate of Management (DM) program, I am interested in developing a greater understanding of the employee experience in the workplace. I will ask you a series of open-ended questions on this topic, and I will also ask one or more follow-up questions as you respond. The interview will last approximately 60 –90 minutes*."

Confidentiality (Interviewer): *"Everything you share in this interview will be kept in strictest confidence, and your comments will be transcribed anonymously – omitting your name, anyone else you refer to in this interview, as well as the name of your current organization and/or past organizations. Your interview responses will be included with all the other interviews I conduct."*

Audio Taping (Interviewer): *"To help me capture your responses accurately and without being overly distracting by taking notes, I would like to record our conversation with your permission. Again, your responses will be kept confidential. If, at any time, you are uncomfortable with this interview, please let me know and I will turn the recorder off*."
"*Any questions before we begin?"*

Interview Questions

1. Initial Question:
    a. OPENING: **Tell me a little about your background and how it led you to be in this role?**
        i. **Discuss and/or describe any mentors**

2. Core Questions:
    a. DEVELOPMENTAL: **Tell me of a successful initiative that positively impacted your organization.**
        i. Probes: tell me more about the people involved or more details of the program. Please elaborate on "that" point
    b. LEVERAGING: **Over the past two years tell me about a time when you discussed talent management with key personnel**
        i. **Probes: Can you provide more insight on "that" discussion, point or person involved**
    c. HIRING/RETENTION… if needed: **Tell me of an experience managing or developing an employee you consider world class**
        i. Probes: Please say more… can you be more specific?

3. Optional: **What do you think about diversity within the context of your organization?**

4. Exit: **What else would you like to add? May I contact you again with follow up questions?**

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CULTURE: FOR SMALL TO MEDIUM SIZED ENTERPRISES IT ENHANCES ENTRPRENURIAL ORIENTATION

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CULTURE: FOR SMALL TO MEDIUM SIZED ENTERPRISES IT ENHANCES ENTRPRENURIAL ORIENTATION

ABSTRACT

Small to medium sized firms are an important yet understudied context of business in the US. Most research on smaller firms centers on the entrepreneurial aspects of such firms and ignore other possible explanation for small firm success. Organizational culture has been shown in separate studies to positively impact firm outcomes but the combination of entrepreneurial orientation (EO) and firm culture has rarely been tested. We conducted an inquiry into the effects of both EO and cultural attributes of small firms by surveying 220 individuals working in small firms in a variety of capacities. What we found was that while EO does play a role, organizational learning has significant explanatory power as to why firms innovate even when EO is absent and combined with play and empowerment increase the predictive power of small firm innovation when EO is present. This contributes to the literature in extending small firm inquiry beyond EO and linking it with culture and conveys the message for practitioners that small firms need not be entrepreneurial in order to innovate provided they inspire culture building such as playfulness, empowerment, and learning.

Keywords: Small to medium-sized enterprises; SME; entrepreneurial orientation; empowerment; playfulness; learning; culture

INTRODUCTION

It has been shown in numerous studies that entrepreneurial orientation (EO) leads to exceptional innovation in small to medium sized firms (Rauch, Wiklund, Lumpkin, & Frese, 2009) and EO is generally recognized by researchers as being a significant contributor to firm performance (Covin & Lumpkin, 2011). Several of those studies, however, suggest that direct effects alone are an incomplete view (Wang, 2008), and the several dimensions of EO may each contribute differently to firm innovativeness (Kreiser, Marino, Kuratko, & Weaver, 2013) suggesting there may be other factors besides EO that leads to firm innovation. Gibb (1999) notes that while EO development is important to small to medium-sized enterprise (SME) success, equal attention must also be given to firm culture, and that too often the separate concepts of entrepreneurial orientations and organizational culture are confused and in need of definition.

Briefly stated organizational culture can be summarized as a shared set of values, beliefs, assumptions and work systems that are embedded within an organization and perpetuates through continued communication of such values to both existing organizational members and newcomers (Schein, 2010). Surprisingly, a recent review of top journals found only 10 articles that studied organizational climate directly and as an aggregate construct (Schneider, Ehrhart, & Macey, 2013) while a recent meta-analysis of 46 studies found that innovation in small firms is context dependent, particularly influenced by culture (Unger, Rauch, Frese, & Rosenbusch, 2011). Cultural dimensions often play a key role in shaping an innovative work environment both at the individual and firm level and include specific attributes such as empowerment (Çakar & Ertürk, 2010).

The importance of SMEs, and thus understanding them, cannot be overstated. In the US, small to medium-sized enterprises account for over half of non-farm GDP (Small Business Administration, 2014), make up 99% of all firms, constitute half the employment in the US, and from 1993–2009 generated 65% of net new jobs (US Census Bureau, 2013). Interestingly, despite the economic impact of small firms in the US, much of the research on SME has been outside the US (Ram & Edwards, 2003), with many studies showing them to be highly complex systems that are difficult to understand and measure (Simpson, Padmore, & Newman, 2012). In order to clarify how EO plays a role in SME in the US and model what other factors predict firm-wide innovation, we conducted an inquiry of 220 employees of SME based on findings from a prior qualitative study. Our study contributes to research by expanding our understanding of SME innovation performance factors while providing a structure for how small business owners can approach leading their firms, with or without entrepreneurial attributes.

THEORETICAL FRAMEWORK

Entrepreneurial Orientation

An increase in the amount of entrepreneurial orientation within a small to medium-sized firm has been positively correlated with better firm outcomes (Wiklund, 1999; Zahra & Covin, 1993). For our purposes, we consider entrepreneurial orientation to be a combination of innovativeness and related strong proclivity to introduce new products (Covin & Slevin, 1991) along with a proactive nature whereby the firm seeks to get ahead of the competition by anticipating future demand (Lumpkin & Dess, 2001) and related willingness to commit large resource commitments that involve a low probability of success (Miller & Friesen, 1982).

Entrepreneurial Orientation has been shown in multiple studies to lead to small to medium-sized firm success. Several of those studies, however, suggest that direct effects alone are an incomplete view (Wang, 2008). Entrepreneurial behaviors are also difficult to define and may include both behavioral and firm culture characteristics (Lumpkin & Dess, 1996) and entrepreneurial orientation's several dimensions, may each contribute differently to firm performance (Kreiser et al., 2013) suggesting there may be other factors besides entrepreneurial orientation that leads to firm performance. Further, it has been understood that while EO is important for small firm innovation, other factors are at work in conjunction with EO including empowerment (Muchiri & McMurray, 2015). Finally, what is also understood is that not all SME are necessarily "entrepreneurial" rather they are merely small business organizations with either form of operating, finding both success and failure (Runyan, Droge, & Swinney, 2008).

Small Business Culture

A longitudinal study by Pettigrew identified that something more than entrepreneurship, namely culture, was at least in part responsible for the long-term success of firms and that for firms to grow they needed to build commitment at every stage within the organization (Pettigrew, 1979). Barney added to this growing body of work confirming that several culture-related variables were attributed to sustaining growth and creating competitive advantage (Barney, 1986). In the small business context, it was found that clan and adhocracy culture, loosely defined as group knowledge sharing and flexible, autonomous market response activities within firms, led to firm flexibility and adaptability in response to fast changing market conditions (Stoica, Liao, & Welsch, 2004). Empowerment of employees throughout a small to medium sized firm is shown to contribute to innovation,

regardless of whether entrepreneurial style exists (Çakar & Ertürk, 2010). Playfulness can also lead to organizational success when individuals or teams are allowed to "play"—through play organization members are more creative and can speed up their learning process through sparks of creativity created by play (Brown, 2009). Finally, organizations need to learn by accumulating knowledge gained from experience and refining that knowledge through iterative tests or transformations (Kolb, 2014).

Empowerment

Entrepreneurial orientation alone does not necessarily lead to SME firm success; rather, confirm additional cultural attributes must be at play (Gibb, 1999). One cultural construct impacting the ability of a firm to innovate is *empowerment* i.e. allowing those closest to the action to make decisions and keeping employees abreast of the most recent information available about the company and its markets (Denison, 2000). For our uses, we define empowerment consistent with Denison as "individuals have the authority, initiative, and ability to manage their own work. Empowerment creates a sense of ownership and responsibility toward the organization" (Denison, Janovics, Young, & Cho, 2006). A recent meta-analysis shows that firms evidencing high-performance work practices that include collaboration and feedback, elements of empowerment, are positively associated with psychological empowerment measures that led to positive firm performance outcomes (Seibert, Wang, & Courtright, 2011). However, until more recently the SME context has not been specifically taken into account in such studies. A recent study by Çakar focused solely on small to medium-sized firms and found that empowerment was positively associated with innovation both at the firm and individual level (Çakar & Ertürk, 2010).

Playfulness

Playfulness can also influence the firm's ability to innovate, and share ideas, leading to enhanced performance and product innovation (Glynn & Webster, 1992). We define *play* as individual or collective engagement associated with work or an effort towards diversion from work which encourages creativity (Mainemelis & Ronson, 2006). The playful nature of employees is to engage one another through positive behaviors. Even when entrepreneurial attributes exist within a firm, other aspects of leadership also contribute to firm-wide innovation that includes culture development such as play (Renko, El Tarabishy, Carsrud, & Brännback, 2015).

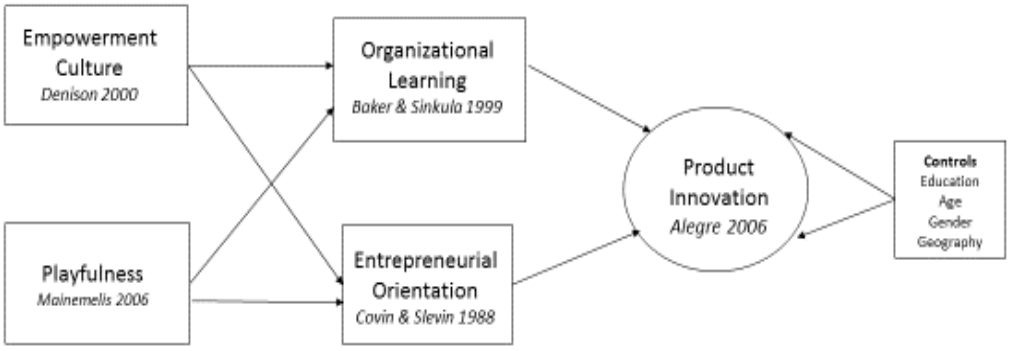
Organizational Learning

A key attribute to the firm's success is the ability of the firm to engage in learning styles that encourage open communication and sharing of knowledge (Baker & Sinkula, 1999). Accordingly, SME that share information in an open and often less structured environment have been shown to outperform those that are hierarchical and closed (Stoica et al., 2004). Further, firms that have characteristics of a learning organization that include open communications and information sharing, risk taking, new idea promotion, and resource availability are more likely to innovate and adapt quickly to change (Kontoghiorghes, Awbre, & Feurig, 2005). In the context of small firms, we define organizational learning as the dynamic process of individuals within the firm interpreting the environment and responding by learning causal relationships (Lee, Courtney, & O'Keefe, 1992) which inspires changes in organizational norms (Argyris & Schön, 1978).

Research Model and Hypotheses

Building on a prior qualitative study and testing specifically for culture attributes we believe contribute to small business firm performance despite the absence or in the presence of entrepreneurial orientation, we present the research model in Figure 1. The dependent variable for our model is innovation. We used this dependent variable as it has been consistently used to indicate positive outcomes at the small firm level (Sahut & Peris-Ortiz, 2013; Terziovski, 2010).

FIGURE 1
Research Model



Innovation (IN) is the technical, design, manufacturing, management and commercial activities involved in the marketing of a new (or improved) product or the first commercial use of a new (or improved) process or equipment (Terziovski, 2010). A second dimension involves how strategy plays a role within the firm (Zahra & Covin, 1993). A third approach considers the successful exploitation of new ideas under condition of product (or process) novelty and use but includes the first definition above (Alegre, Lapiedra, & Chiva, 2006).

Our model suggests that empowerment and playfulness are antecedent conditions that are mediated by organizational learning and/or Entrepreneurial Orientations leading to improved innovation outcomes in small firms.

***Empowerment* (EM).** Individuals in an organization have the authority, initiative, and ability to manage their own work. Individuals can also reach or have access to the information they need. This creates a sense of ownership and responsibility toward the organization (Denison, 2000). Using this framework wee hypothesize that:

> *Hypothesis 1a. Empowerment improves innovation when fully mediated by entrepreneurial orientation*
>
> *Hypothesis 1b. Empowerment improves innovation when fully mediated by organizational learning*

Playfulness (PL). Playfulness relates to a set of psychological traits, including cognitive spontaneity and creativity, as well as to functional orientation and rank, that lead to positive work outcomes (Glynn & Webster, 1992). Mainemelis suggests that playfulness leads to creativity which in turn leads to innovation (Mainemelis & Ronson, 2006). Under these definitions we hypothesize that:

> *Hypothesis 2a. Playfulness improves innovation when mediated by entrepreneurial orientation*
>
> *Hypothesis 2b. Playfulness improves innovation when mediated by organizational learning*

Organizational Learning (OL). Learning in an organization is dynamic whereby individuals interact with the environment causing the environment to respond, and individuals learn by updating their beliefs. OL is typically conceptualized as comprising four primary dimensions: information acquisition (the process by which information is obtained), distribution (the process by which information is shared), interpretation (the process by

which information is given meaning and thus is transformed into knowledge), and memory (the process by which information/knowledge is stored for further use) (Huber 1991). Using these points for consideration we hypothesize that:

> *Hypothesis 3. Organizational learning directly leads to improved firm innovation in the absence of entrepreneurial orientation*

Entrepreneurial Orientation (EO). A firm demonstrates its willingness to take business-related risks in order to gain or sustain competitive advantage while competing aggressively with other firms and favoring change or innovation as compared to being decidedly risk averse, non-innovative or passive (Covin & Slevin, 1988; Covin & Slevin, 1989). We hypothesize that:

> *Hypothesis 4. Entrepreneurial Orientation directly leads to improved firm innovation in the absence of organizational learning*

EO alone may lead to firm innovation but is not necessary for innovation to occur. However if both EO and other cultural attributes are present, namely organizational learning, firm innovation will be more positively impacted. We thusly hypothesize that:

> *Hypothesis 5. When play and empowerment are mediated by both EO and OL innovation will be more positively influenced than when only one or the other mediator is present.*

RESEARCH DESIGN AND METHODS

Instrument Development

We used the following scales for our survey instrument, and the actual survey questions are in Appendix A. Our independent variables were Playfulness and Empowerment, and we tested Entrepreneurial Orientation and Organization Learning both as independent variables and mediating variables in order to assess the strength of each individually and in combination. Our dependent variable was firm-wide innovation.

Entrepreneurial Orientation (EO). In assessing the entrepreneurial nature of the entire firm, we modified scales developed by Coving and Slevin that previously had an inter-item reliability of .79 focusing on three main attributes of entrepreneurial behavior being risk-taking, innovative nature and proactive actions (Covin & Slevin, 1988). Our modification was primarily a shift from a seven-point Likert scale to a five-point scale to be consistent with other survey items and to make small word changes that asked the questions in similar style as other survey items as well as ask the questions in terms of the entire firm versus a business unit given our respondents were from smaller firms of less than 500 persons.

Organizational Learning (OL). We modestly adapted a scale used in numerous studies by Baker and Sinkula and others having been rigorously tested for inter-item reliability (Baker & Sinkula, 1999; Dess & Robinson, 1984; Jaworski & Kohli, 1993). The modifications were minor wording changes for survey consistency.

Empowerment (EM). We used scales extensively developed and used over multiple years by Denison and adapted by only making minor word changes to consistently fit the style of the survey—the inter-item reliability of the is scale was previously tested at .82 (Denison et al., 2006).

Playfulness (PL). We derived the playfulness scale from the work of Glynn and Webster (Glynn & Webster, 1992) whose work was expanded by Mainemelis (Mainemelis & Ronson, 2006). These works were further adapted to a shorter version of an adult playfulness scale called SMAP which was tested several times for inter-item reliabilities ranging from .8 to .89 and served as the basis for our survey (Proyer, 2012) with only minor word changes to consistently fit the survey style.

Innovation (IN). Innovation is our dependent variable for which we tested several prior validated scales during multiple iterations of Q-sorts. The final 16 items we used for our survey were a combination of the best Q-sort results from the prior validated scales of Zahra and Covin's Strategy Innovation scale (Zahra & Covin, 1993) and Alegre's Product Innovation scale (Alegre et al., 2006). We made them both into five-point Likert scales and modified some wording to meet the style of our survey. We kept so many items given some weakness uncovered during q sort with an eye to removing items during factor analysis as necessary.

Prior to launching the final survey we processed seven versions of Q-sorts and conducted a pilot test survey. Q methodology is a well-regarded and long-standing method of pre-testing questions for a survey to identify those that may have dual meanings to a survey taker and thus cross load upon factor analysis (Brown, 1996). The main trouble spots uncovered during our multiple iterations of Q-sorts were the innovation items cross loading with various other constructs, most often entrepreneurial orientation. The Q-sort results in the final version resulted in item placement ratios consistent with Moore and Benbasets suggested levels (Moore & Benbasat, 1991). The hit rates for each construct exceeded 70% except for EO which was only 63%; however, we made slight word modifications to the three lowest performers and retained those questions with a view towards eliminating them in our EFA if necessary. As already noted, EO and IN had some cross loading, but we believed by using many items in each category we could sort out any significant cross loads during factor analysis.

Data Collection

We used our network and various groups within LinkedIn to obtain survey respondents. Our introductory email to individuals and links to groups indicated the survey was studying cultural attributes of small to medium sized firms, companies with less than 500 employees. We began collection in mid-December 2015 and concluded at the end of January 2016.

Sample

We received 220 fully completed surveys meeting the criterion of being currently involved in a business with less than 500 employees and existing at least five years, although we retained four surveys of firms that were in their fifth year of operation. We avoided missing data by forcing responses although we did receive several hundred partially completed surveys that we did not include due to more than ten percent of the responses missing. Table 1 describes the demographics of the survey respondents except geography and industry of which there was significant dispersion across the US and industry.

Measurement Model

The data was tested for normality, and while we found most of the data had some level of skewness or kurtosis, no action was taken to modify the data set based on these analyses. No issues with multicollinearity were detected and while a few outliers existed they were few as compared to the number of total cases used. Missing data was not a factor as the survey was designed to force responses, so respondents either dropped out or completed the full survey. We did not use incomplete surveys.

TABLE 1
Survey Demographics

	MALE	FEMALE	TOTAL
	121	**99**	**220**
AGE			
<22 years old	1	5	6
22-31 years old	24	33	57
32-41 years old	36	23	59
42-51 years old	31	14	45
52-61 years old	17	20	37
62+ years old	12	4	16
EDUCATION			
High School	17	13	30
Some College	29	28	57
2 yr. degree	8	15	23
4 yr. degree	36	25	61
Masters	27	14	41
Terminal	4	4	8
JOB TITLE			
Majority Owner	28	12	40
minority owner	7	2	9
Executive (non-owner)	22	8	30
Manager	28	23	51
Staff	36	54	90
FIRM AGE			
<5 yrs.	4	2	6
5-10 yrs.	35	17	52
11-25 yrs.	32	33	65
26+ yrs.	50	47	97
# EMPLOYEES			
< 10	11	5	16
11-49	34	38	72
50-99	27	20	47
100-249	32	23	55
250-499	17	13	30
5 YR GROWTH			
<0%	10	3	13
0-10%	43	23	66
11-25%	36	41	77
26-50%	18	17	35
51-99%	11	12	23
100%+	3	3	6

Normality-Skewness. Of the 47 Likert-based items very few of them showed signs of Skewness which is a measure, via SPSS, noting any values that are greater than +1 or less than -1 or the being more than three times the standard error (Hair, Black, Babin, &

Anderson, 2010). As with outliers, given most of our items are based on Likert scales we have little theoretical reason to remove any variables due to skewness unless perhaps we have little or no variability in our data as assessed by the standard deviation, of which values greater than .5 would show reasonable variability (Hair et al., 2010). In our data, all values had standard deviations above .5

***Normality-Kurtosis*.** Kurtosis, the peakedness or flatness of the distribution is also assessed using the same rules as skewness (values > than 1 or -1 or a value being more than 3 times the standard error), but Sposito uses a looser rule of 2.2 versus 1 (Sposito, Hand, & Skarpness, 1983). As with skewness, only a few items show some kurtosis, but none are above the looser 2.2 threshold; and, given the reasonable amount of variation already noted for Likert scale items, we have no theoretical foundation for removing any constructs or items.

Exploratory Factor Analysis (EFA)

EFA is used to assess our measurement model to determine if the items we establish to measure each construct do indeed measure that specific construct and if so whether or not the explanatory power of the items are meaningful to the construct and the constructs explain more than 50% of the variance. Our a priori assumption was there are five factors. In SPSS the factoring method most suitable in this case is Maximum Likelihood as we expect there to be correlations among the items within a construct as opposed to principal component factoring that is used when we expect unique and independent variables (Brown, 2014). We use Promax rotation, an oblique assumption. Using an orthogonal choice such as varimax will show that variables are not correlated and outputs a messy pattern matrix with many cross loads. Given we expected the items to be correlated, and therefore, grouped in some

fashion, Promax offers a more appropriate result for our study (Brown, 2014). We also could have chosen direct oblimin as our oblique option, but the field generally does not agree on any single method and using either oblique method will often return similar results (Kline, 2006) so given our prior experience with Promax it was chosen.

When we run the items for an EFA what we seek are factor loadings that are high within factors showing a high correlation among items within a factor and also wish to see items load on single factors also known as convergent validity (Campbell & Fiske, 1959). When running the initial model we used Eigenvalues greater than 1 and suppressed coefficients less than .2 which yielded a 10-factor solution although our a priori assumption was only five factors, primarily due to the IN items breaking into several factors. Deleting cross-loadings and items with loadings under .3 are preferred methods to approach gaining a clean pattern matrix of highly correlated items within a factor and factors that are distinct (Hair et al., 2010). We approached this process by working the pattern matrix under dozens of assumptions to obtain the most optimal solution which is shown in Table 3.

Convergent and discriminant validity. Similar to convergent validity, discriminate validity attempts to convey that individual factors are unrelated or not highly correlated, preferably less than .7 (Campbell & Fiske, 1959). Table 2 shows the correlation matrix, and all values are below .7; thus, we conclude there is discriminant validity.

TABLE 2
Factor Correlation Matrix

Factor	OL	EM	IN	PL	EO
Organization Learning	1.000	.464	.486	.386	.417
Empowerment	.464	1.000	.284	.336	.342
Innovation	.486	.284	1.000	.339	.516
Playfulness	.386	.336	.339	1.000	.444
Entrep. Orientation	.417	.342	.516	.444	1.000

Sampling adequacy. A key measure of sampling adequacy is the KMO statistic which assesses each variable individually and all of them collectively (Kaiser, 1970). A KMO of greater than .7 is deemed sufficient, or adequate, and in our case is a solid .875. Another test of data adequacy is Bartlett's Test of Sphericity (BTS) which tests the null hypothesis that the variables in the population correlation matrix are uncorrelated. That test reviews significance and in our test it was indeed significant (p = .000, chi-square = 2418 and df = 325) and thus, data adequacy is supported. A review of communalities (not shown) indicated some concerns. Communalities suggest the extent to which an item correlates to others. Higher communalities are preferred, at least above .4 (Gaskin, 2015); however, several remained between .3 and .4, but we decided to retain them until our CFA. After exhaustive efforts, our final five-factor solution explains just under 50% of the variance, a limitation of our study, as shown in Table 3 Looking at the reproduced correlations (not shown) there were 37 non-redundant residuals, or 11% (no table shown) a measure we desire below .05 (Hair et al., 2010); however, given all the factors noted above, we conclude that we have reasonable data adequacy.

TABLE 3
Final EFA Pattern Matrix

	Org Learn	Empower	Innovate	Play	Entrep
Cronbach Alpha	0.892	0.807	0.781	0.771	0.723
Var Explain=49%	26.700	6.2	6.6	6.2	3.5
OL6	.848				
OL4	.839				
OL2	.800				
OL5	.766				
OL3	.726				
OL7	.646				
OL8	.537				
OL9	.473				
EM4		.799			
EM3		.685			
EM8		.622			
EM9		.600			
EM1		.589			
EM7		.524			
IN12			.935		
IN11			.785		
IN10			.543		
IN9			.447		
PL7				.992	
PL6				.646	
PL5				.456	
PL2				.422	
ES6					.695
ES5					.670
ES4					.566
ES7					.523

Reliability. Finally, we test for reliability to determine consistency of items loading on the same factor, a statistic we desire above .7. We expect this value to be higher when more items are included (Cronbach, 1951). In our case, the Cronbach alpha's were all sufficiently high ranging from .723 to .892 (Hair et al., 2010 p. 125).

Confirmatory Factor Analysis (CFA)

Initial review and assessment. We conducted a CFA which differs from EFA in that it is hypothesis driven used to examine the latent structure of a test instrument, validate constructs, assess effects of the method used and to evaluate measurement invariance (Brown, 2014). After building the measurement model using a plugin tool taking the EFA pattern matrix from SPSS into AMOS and running it, we found our model fit indicators initially at acceptable levels. Our CMIN/DF was 1.396, CFI at .951, RMSEA at .042 and PCLOSE insignificant all indicating good model fit (Hair et al., 2010).

Model fit. Chi-square statistic is the most traditional fit statistic but has limitations particularly when there is a lack of normality or the sample size is large, both applicable in this instance (Hu & Bentler, 1999). As an alternative, CMIN/df is often used where a value under 5 is considered acceptable by some but a more rigorous measure of goodness of fit is a value less than 2, and our model is 1.396 (Byrne, 2013). RMSEA is a widely accepted measure of model fit whereby a value <.05 is considered good (Browne, Cudeck, Bollen, & Long, 1993). In our model, RMSEA was .042. CFI is one of the more popularly reported fit statistics and has been recently shown that best model fit comes at values >.95, which it is for our model (.951) (Fan, Lane, Pedler, Crowley, & Higashi, 1997). Finally, PCLOSE, a significance test assessing the null hypothesis, whether the model can be confirmed or not (Browne et al., 1993) had a value of .889 indicating insignificance or that our model is not yet disconfirmed.

Convergent and Discriminant Validity. Lastly, we tested for convergent and discriminant validity using an Excel tool that takes into account the correlations table and standardized regression weights (Gaskin, 2015). Three tests are generally recommended: 1)

all factor loadings during CFA should exceed .5; 2) critical ratios should exceed .7; and 3) the average variance extracted (AVE) of every construct ought to exceed .5 (Bagozzi & Yi, 1988). Only one factor loading was below .5 (IN at .47) and all critical ratios were above .7 ranging from .725 to .895. However, our average variance extracted was below .5 for two constructs, empowerment = .418 and entrepreneurial orientation = .40. AVE is a strict measure of convergent validity whereby Malhotra and Dash note that "AVE" is a more conservative measure than CR so on the basis of CR alone, the researcher may conclude that the convergent validity of the construct is adequate, even though more than 50% of the variance is due to error" (Malhotra, 2010: 702). In terms of discriminant reliability, the square root of the AVE for a construct ought to be greater than the correlation of that construct with all the others (Hair et al., 2010) which in our case they were.

Common Method Bias (CMB)

Common Latent Factor. We tested for CMB using a common latent factor (CLF) in the absence of a marker variable. When introducing the CLF into the model we noted the construct of Organizational Learning indicated some bias. We identified this by comparing the standardized regression weights with and without the CLF searching for items that had differences greater than .2 (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Given this finding, we included the CLF when imputing final construct factor scores.

Structural Equation Modeling (SEM)

After imputing composite scores from our final CFA results, we built a model in AMOS. The conceptual underpinnings of the model are discussed in the Hypothesis section where we laid out the separate hypotheses. In order to determine findings and draw conclusions, we conducted tests for mediation and assessed final model fit.

Mediation Testing. In order to assess the effects of the mediators on the independent variables, we tested the direct effects and their significance of both empowerment and playfulness on innovation absent either mediator in AMOS. Both betas were reasonably powerful and were significant; PL (.3***) and EM (.13*). Thereafter, we added the mediators separately and tested to see the power and significance of direct effect while also testing for indirect effects and significance using both bootstrapping with 2,000 samples and a Sobel test. Finally, we ran the model with both mediators present and tested to see the power and significance of direct effects while also testing for indirect effects and significance using a Sobel test.

FINDINGS

The inquiry was intended to assess the explanatory power differential, if any, between entrepreneurial orientation (EO) and organizational learning (OL) when each is isolated as mediators to play (PL) and empowerment (EM) on innovation (IN) and what impact results when both are present. When assessing direct effects, only of the independent variables both have a significant effect on IN. When testing EO or OL separately as mediators to PL and EM on IN, play is partially mediated by organizational learning and fully mediated by EO however EM is only fully mediated by OL with no mediation present when mediated by EO. These results are confirmed by bootstrapping and a Sobel test as shown in Table 4. With EO as the mediator, the explanatory power of the model is .37 and a significant but smaller explanatory power of .29 when OL is the mediator. When both mediators are present, the explanatory power of the model rises to .51 with significances confirmed by a Sobel test as shown in Table 4. Given the above-referenced findings, the results of our hypotheses are in Table 5.

TABLE 4
Mediation Test Results

		Beta	Significance	Bootstrap 2 Tail Sig	Sobel Statistic/ p-value	Comment
Without Mediators >	PL>>>IN	0.3	***			positive direct effect
	EM>>>IN	0.13	0.046			positive direct effect
OL Mediator >	PL>>>IN	0.19	0.003			
	PL>>>OL	0.25	***			
	PL>OL>IN	0.108		0.004	3.05/.002	Partial Mediation
	EM>>>IN	0.02	NS			
	EM>>>OL	0.26	***			
	EM>OL>IN	0.11		0.001	3.83/***	Full Mediation
EO Mediator >	PL>>>IN	0.04	NS			
	PL>>>EO	0.47	***			
	PL>EO>IN	0.261		0.001	5.2/***	Full Mediation
	EM>>>IN	0.1	NS			
	EM>>>EO	0.05	NS			
	EM>OL>IN	0.027		.512 (NS)	1.14/.25(NS)	No Mediation
Both Mediators >	PL>EO>IN	0.25			5.45/***	
	EM>EO>IN	0.027			1.14/NS	
	PL>OL>IN	0.1			3.12/***	
	EM>OL>IN	0.104			3.97/***	

TABLE 5
Hypothesis Conclusions

H1a: Empowerment improves innovation when fully mediated by entrepreneurial orientation	Unsupported	insig
H1b: Empowerment improves innovation when fully mediated by organizational learning	supported	.11***
H2a: Playfulness improves innovation when mediated by entrepreneurial orientation	supported	.26***
H2b: Playfulness improves innovation when mediated by organizational learning	Partially supported	.108***
H3: Organizational learning directly leads to improved firm innovation in the absence of entrepreneurial orientation	supported	.43***
H4: Entrepreneurial Orientation directly leads to improved firm innovation in the absence of organizational learning	supported	.55***
H5: When play and empowerment are mediated by both EO and OL innovation will be more positively influenced than when only one or the other mediator is present. EO Mediator Alone OL Mediator Alone	supported	$R^2 = .51$ $R^2 = .36$ $R^2 = .26$

DISCUSSION

Innovation, particularly of the kind associated with openness and knowledge sharing, has been studied in large organizations and tech firms but less so in smaller firms (Chesbrough, 2003). However, a recent review of open innovation in smaller firms shows a growing number of smaller firms are focused on firm-wide innovation practices that include knowledge sharing, and such activity is not limited to tech firms rather are found in all type of SME including service and manufacturing firms (van de Vrande, de Jong, Vanhaverbeke, & de Rochemont, 2009). We find it consistent with our findings that indeed organizational learning leads to innovation and is strengthened when combined with EO. What was particularly interesting in our findings is that organizational learning (OL) unlocks the potential that other cultural attributes such as empowerment (EM) and playfulness (PL) have

on innovation (IN). In itself , play in organizations may drive creativity, but the learning from creative experimentation leads to improved innovation—it is one thing to create artifacts but far more important that we continuously learn and improve those artifacts. Empowerment too can lead to innovation but by itself, it is an island. However, when empowerment intersects with learning, it is magnified and made more meaningful. Empowering those closest to the action to make decisions works much better when those people have more information. By knowing what is taking place across the business, how markets are changing, and how the mission, purpose and goals of the firm evolve, those empowered will make cleaner, smarter decisions than by simply being empowered without access to critical information. Our research enlightens the field of small firm study by showing that not only does OL lead to firm-wide innovation but it can unlock other individual culture attributes making such cultural development in a SME deeper and richer in terms of their contributions to innovation.

In 1995, Mark Huselid and Brian Becker coined a human resource practice entitled high-performance work systems or HPWS, a group of practices that were shown to lead to improved firm performance (Huselid, 1995). HPWS were specifically found to improve performance in smaller firms as well (Way, 2002) but left open if those practices led to innovation. Camps conducted a study on HPWS in smaller firms and found that organizational learning indeed mediated such practices thereby elevating the importance of OL in small firms (Camps & Luna-Arocas, 2012). Our findings expand the growing knowledge base of HPWS by showing that culture attributes enhance the value of such practices, particularly when OL is present. While smaller firms may not employ sophisticated HPWS practices, a prior study found that these practices do exist in many small firms, albeit

informally (Chambers, 2014) and with the present findings in hand we can extend HPWS further to suggest as Camps, et al. have shown that OL mediates such practices but also mediates other practices SME may employ such as empowerment and playfulness. This formula for small firm success may very well lie in having informal large firm human resource practices that benefit from also cultivating a specific culture that is unleashed through the auspices of OL.

We know from a variety of studies including a meta-analysis of the EO-performance literature that EO leads to improved firm outcomes (Rauch et al., 2009) but these studies rarely if ever also took into account other culture-related factors. Even within EO literature, there are different types of EO involved such as novice, serial, or portfolio, but even then a question arises as to whether or not EO matters at all when it comes to firm outcomes (Matlay & Peters, 2005). What we found was that both play and empowerment contribute to small firm innovation on their own, but in the case of play when mediated by EO its strength in leading to innovation becomes much greater. Thus play itself is a factor that contributes to SME innovativeness with or without EO or OL but when one or both are also present the predictive power of play is greatly amplified. In creative industries specifically, it has been found that play is a significant factor in how the firm operates (Moultrie & Young, 2009) and another study suggested that certain cultural traits of the firm such as playfulness are what cause EO (Lumpkin & Erdogan, 1999). So we are not surprised to find and confirm that while on its own play does contribute directly to innovation but in combination with either or both EO and OL it has a much more significant impact. What is also critical to recognize is that we have shown that EO is not a pre-requisite leading to small firm innovation. While certainly EO can make a difference, the mere presence of specific cultural traits such as play

and empowerment, particularly when mediated by OL are also leading indicators of small firm innovation.

A qualitative inquiry undertaken as part of a dissertation found that empowerment was also a factor in contributing to innovation, especially in the presence of several other cultural variables and even in the absence or in place of EO (Chambers, 2014). As with *Play*, we found direct causal relationships to innovation, but when mediated through EO, it was insignificant. Similar to OL, it has been found that HPWS in smaller firms do not function on their own rather are enhanced or improved by cultural factors including empowerment (Kroon, Van De Voorde, & Timmers, 2013). Given these prior findings, we were surprised that empowerment was not mediated by EO in terms of contributing to innovation.

Overall our findings suggest and confirm that EO is indeed an important and significant contributor to firm innovation, but we have also shown that it is not necessary for innovation to occur in small firm settings. Further, EO can be improved upon by adding in cultural factors such as play and empowerment, in particular when mediated by OL. The most interesting finding is that either EO or OL will lead to innovation in SME without the other but when both are present the predictive power was 36% greater than with just EO and 73% more powerful than OL alone. What we understand from this new knowledge is that as many other studies have shown there is likely more than one attribute at work when small firms are innovating, and that combination can be substantial.

IMPLICATIONS FOR THEORY AND PRACTICE

Implications for practitioners is quite clear. Whether small firm owners and senior leaders are entrepreneurial or not, a focus on culture can lead to firm-wide innovation. Too often it is presumed that SME leaders must be entrepreneurial in order for firms to thrive yet

it is clear from this study that even in the absence of EO organizational learning plays a large role in the innovativeness of small to medium sized enterprises. In cases where EO is present, emphasizing play and empowerment and encouraging firm-wide learning greatly enhances the impact of EO on innovation—thus taken together EO and OL form a powerful combination that leads to innovation in small firms.

What this means for SME owners is that they ought to design a culture around playfulness and empowering others in order to extract more value from their employees. Those characteristics may be near costless to install and by themselves can lead to firm-wide innovation. Making sure the business environment is both fun and interactive can lead to the type of creativity that sustains competitive advantage. People will work harder when they enjoy the work environment and those around them. By adding the dimension of empowerment, employees closest to the action can make faster decisions aligned with that specific activity; and doing so has the added benefit of extending a fun atmosphere. Once these foundations are laid designing a learning organization around it will enhance those effects. More knowledge will lead to more fun and better decisions by those making them. Another benefit of OL is that it can directly lead to innovation even if PL and EM are not yet in place. Sharing knowledge about the business, market trends, and firm goals helps lead not to just innovation but targeted innovation that can make a difference. And the good thing about these cultural factors is that EO is not necessary. Being entrepreneurial is not always going to be the nature of a SME owner or senior leader but sharing knowledge can be done by anyone willing to emphasize learning. However, in the cases where EO is indeed present, greater innovation may take place but by adding the OL dimension along with play and empowerment making a substantial difference that can lead to greater competitive advantage.

For theory we have added to the small body of knowledge about SME in the US and while doing so link both EO and OL recognizing their combinative power versus their stand-alone characteristics. We have confirmed what previous studies have found with regard to EO leading to innovation as well as confirmed work showing OL also leads to firm innovation. However, we have extended these theories by showing how the work together and in conjunction with other culture attributes. We have also added the well-developed theory of HPWS extending what other shave found in that HPWS components can be mediated by such things as EO or OL but again we have introduced their combinative power as well as two other culture traits that may also improve the design of HR systems, even if they are informally utilized in SME.

Suggestions for future research are to test these results by extracting inter-firm survey data from multiple individuals at all levels in such organizations so that we can be sure EO and OL work together as we have concluded. Further, we could add a second dependent variable such as growth in order to assess if EO and OL work together to improve growth as well as innovation as innovating alone does not ensure firm growth or profitability and might also assess how external environmental factors play a role.

LIMITATIONS

There are several limiting factors to our inquiry. First, we only have 220 respondents, none of which are likely from the same firms; therefore, we have only one data point with regard to EO and culture at each respective place of employment. Second, our variance explained in the EFA was slightly under 50% where we prefer it to be 60% or better. Third, our test of convergent validity indicated a weaker than preferred AVE.

APPENDIX
Survey Questions

All survey questions, other than demographics, were asked based on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

Entrepreneurial Orientation Survey Questions:

In dealing with competitors, our firm typically initiates actions to which competitors respond
In dealing with competitors, our firm typically responds to actions which competitors initiate
In the firm entrepreneurial like decisions are often large and bold despite the uncertainty of their outcomes;
In the firm, rapid growth is the dominant organizational culture
In the firm top level decision-making is characterized by active search for big new opportunities
Managers of the firm believe bold wide-ranging acts are necessary to achieve the firm's objectives
The firm has a strong proclivity for high-risk projects
The firm typically adopts a very competitive, “undo-the-competitors" posture

Organization Learning Survey Questions:

Employees of the firm document and use failures as opportunities to learn
Learning in the firm is seen as a key to assuring organizational success
Managers of the firm agree that our ability to learn is the key to our competitive advantage
The basic values of the firm include learning as key to improvement
The collective wisdom of the firm is that once we quit learning, we endanger our future
The culture of the firm is one that makes employee learning a top priority
Within the firm, employee learning is considered an investment, not an expense.

Empowerment Survey Questions:

Authority to make a decision is delegated to the person who is responsible for performing the task
Decisions of the firm are usually made by those at the level where the best information is available.
Everyone in the firm believes that he or she can make decisions
Information is widely shared within the firm so that everyone can make decisions
Managers of the firm formally allocate resources to the use of cross-functional teams
Managers of the firm facilitate formal communication

Most every employee in the firm attends some form of planning processes in order to facilitate future decision-making
The flat structure of the firm facilitates searching for and incorporating diverse points of view
The managers of the firm encourage and allow all employees to challenge or change the status quo

Playfulness Survey Questions:

I am spontaneous when I interact with other people in the firm
I am imaginative when I interact with other people in the firm
I am playful when I interact with other people in the firm
I am flexible when I interact with other people in the firm
I am inventive when I interact with other people in the firm
I am creative when I interact with other people in the firm
I am original when I interact with other people in the firm

Innovation Survey Questions:

Employees of the firm formally monitor developments in new technologies to guide their innovations
Customer satisfaction is part of the firm's innovation strategy
Collaborative innovation strategy is seen as increasing employee skills within the firm
Improving administrative routines is seen as part of the firm's innovation strategy
Improving product or service quality is a key objective of the firm's innovation strategy
Internal cooperation is an important part of the firm's innovation strategy
Product innovation efficacy is important to the firm
Product innovation efficiency is important to the firm
Replacement of products being phased out is a firm priority
The firm has an above average number of innovation projects compared to competitors
The firm regularly extends product range within main product field through technologically improved products
The firm regularly extends product range within main product field through technologically new products
The firm regularly extends the product range outside main product field
The Firms innovation strategy has helped the firm achieve its strategic goals
The firms process innovation strategy includes increasing our production volume
The vision or mission statements of the firm include a reference to innovation

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