ABSTRACT

Leaders of small firms often lack support staff to whom they can delegate managerial tasks. Related to the small business management paradigm, these leaders need insight into what management practices to employ as they simultaneously balance operations, administration, and human resource duties. Strategic planning has been the focus of much scholarly attention. However, the effect of strategic planning on small business performance is unclear. We attempt to provide clarity by establishing a higher-order component construct, comprehensive strategic approach, which includes three related management practices: goal setting, strategic planning, and financial ratio analysis. We find evidence that a comprehensive strategic approach enhances small business performance.

Keywords: Small business, Strategic planning, Goal setting, Financial ratio analysis

Introduction

Small businesses contribute much to economies around the world (Halabi, Barrett, & Dyt, 2010), generating jobs, tax revenues, functional products, and charitable donations (Chaganti, Brush, Haksever, & Cook, 2002). In addition, entrepreneurial small businesses play a key role in capturing market opportunities, developing product niches, and leveraging new technological developments (Pinho & de Sá, 2013). Small businesses may also make cultural and social contributions to their communities (Halabi et al., 2010; Sharir & Lerner, 2006; Thompson, Smith, & Hood, 1993). Given the contributions small firms make on several fronts, it is appropriate that researchers seek to provide small business leaders guidance as to what management practices positively impact their firms’ performance.

As small business leaders typically lack a comprehensive support staff and are heavily involved in day-to-day operations (Ensley, Carland, & Carland, 2003; Robinson & Pearce, 1984; Tell, 2012), utilizing effective management practices is especially important for small firms. In that context, small business leaders must make vital decisions regarding the most useful management activities in which to engage and the undertakings that provide the greatest potential for performance improvement (Brinckmann, Gricnik, & Kapsa, 2010). Yet, given small business heterogeneity, the diversity of small business contexts, and the dynamic nature of small businesses, identifying “best practices” is a difficult task (Tell, 2012). As traditional planning activities include a rational and structured evaluation of alternatives (Gibson & Cassar, 2002), instinctively, one would assume strategic planning is an effective small business management practice, positively affecting performance (Pearce, Freeman, & Robinson, 1987). Nevertheless, research considering the relationship between strategic planning and small business performance has produced mixed results (Ensley et al., 2003; Heriot & Loughman, 2009; Honig & Samuelsson, 2012; Robinson & Pearce, 1983; Robinson & Pearce, 1984; Pearce et al., 1987; Powell 1992; Schwenk & Shrader, 1993).

Consequently, small business leaders face a decision: should they engage in strategic planning (Brinckmann et al., 2010), a practice often taught and promoted in business...
classes (Heriot & Loughman, 2009; Honig & Samuels-
son, 2012; Miller & Cardinal, 1994; Pearce et al., 1987),
or should those leaders simply rely on entrepreneurial
instincts? As “the relationship between strategic planning and
company performance lies at the very heart of the [strategic
55), the question of whether strategic planning affects small
business performance has deep implications for the strate-
gic management field. Given previous mixed results, and
the importance of equipping small business leaders with
effective management practices, strategy scholars should
continue to inductively investigate the relationship between
strategic management practices and performance, seeking
to develop theories utilizing evidence harvested from the
small business arena (Ensley et al., 2003; Powell, 1992;
Tell, 2012).

In the present study, we make several contributions
to small business research. First, using a sample of small
firms, we explore the relationship between strategic plan-
ning and business performance. In addition, we explore the
effect of two other management practices (goal setting and
financial ratio analysis) on small business performance.
Therefore, we contribute to the knowledge of the relation-
ships between three management activities (strategic plan-
ning, financial ratio analysis, and goal setting) and small
firm performance. More importantly, we build a hierarchi-
cal component model with three lower-order components
(goal setting, strategic planning, and financial ratio analy-
sis) that captures a higher-order component (comprehensive
strategic approach). Higher-order components involve more
than one dimension (exogenous construct or lower-order
component) (Hair, Hult, Ringle, & Sarstedt, 2017; Wetzels,
Odekerken-Schröder, & Van Oppen, 2009). By forming
a higher-order component consisting of three exogenous
lower-order components, we contribute to the discussion
of how small business leaders might approach strategic
planning, employing a comprehensive strategic approach.
Accordingly, we label our higher-order component a “com-
prehensive strategic approach.” We then explore the rela-
tionship between a comprehensive strategic approach and
small business performance.

Hypotheses Development

To develop our five hypotheses, we first discuss the
three management practices considered in the present study:
strategic planning, goal setting, and financial ratio analy-
sis. We then discuss the higher-order component developed
herein, a comprehensive strategic approach.

Strategic Planning

As previously stated, business researchers have con-
ducted countless studies of strategic planning, seeking to
explore strategic planning’s effect on firm performance. In
the early years of strategic planning research, from 1970
until 1990, approximately 40 empirical studies produced
inconclusive or inconsistent results (Powell, 1992). Shrader,
Taylor, and Dalton (1984) reviewed over sixty studies
and concluded that there is no readily apparent systematic
relationship between formal planning and performance. In-
deed, Pearce and colleagues (1987) published an article ti-
tled “The Tenuous Link between Formal Strategic Planning
and Financial Performance” in the Strategic Management
Journal.

Since 1990, studies exploring the relationship between
strategic planning and performance continue to produce
mixed results (Falshaw, Glaister, & Tatoglu, 2006). Re-
search finding a positive relationship includes the following:
Andersen (2000), Elbanna (2008), and Song, Im, Bij, and
Song (2011). Research finding no relationship includes the
following: Falshaw and colleagues (2006) and Ouakouak
and Ouedraogo (2013). It appears researchers have recently
focused on what affects the relationship between strategic
planning and performance. For example, although Ouak-
ouak and Ouedraogo (2013) found no direct relationship
between strategic planning and firm performance, yet they
did find a positive relationship between strategic planning
and employee strategic alignment, and they found a positive
relationship between employee strategic alignment and firm
performance, thus employee strategic alignment mediated
the relationship between strategic planning and firm perfor-
ance. Furthermore, given the findings of no direct effect
between strategic planning and firm performance, Ouak-
ouak and Ouedraogo’s (2013) findings indicate employee
strategic alignment fully mediates the relationship between
strategic planning and firm performance. Similarly, Sarason
and Tegarden (2003) found no relationship between stra-
tegic planning and performance when considering all the
firms in their sample, but the authors did find strategic plan-
ning positively affects performance of firms in early stages
of development.

Related to small business research, studies finding a
positive relationship between small business strategic plan-
ning and performance include the following: Bracker and
Pearson (1986), Brinckmann et al. (2010), Gibson and Cas-
sar (2005), Robinson (1982), Sandada, Pooe, and Dhurup
(2014), Shrader, Mulford, and Blackburn (1989), and Watts
and Ormsby (1990). In a meta-analysis of small business
studies, Schwenk and Shrader (1993) did find a positive
relationship between planning and performance. Yet, the authors commented that in light of the small effect sizes, small business leaders should consider whether planning was worth the time invested. Multiple other studies have failed to find a positive correlation between planning and small business performance (e.g., Ensley et al., 2003; Honig & Samuelsson, 2012; McKierman & Morris, 1994; Risseeuw & Masurel, 1994; Robinson, Logan, & Salem, 1986). Moreover, Robinson and Pearce (1984) concluded from a comprehensive literature review that research on the effectiveness of formal planning in small business was unsettled.

Given the intuitive notion that strategic planning provides direction in managing and leading a business, the mixed results are a bit surprising. From general strategic planning research (studies not specifically directed at small businesses), scholars have offered multiple explanations for the inconsistent results produced from planning/performance research. For instance, researchers have proposed that planning might produce inflexibility and excessive bureaucracy (Brinckmann et al., 2010; Miller & Cardinal, 1994; Mintzberg, 1987; Pearce et al., 1987). In addition, the potential inflexibility and bureaucracy from strategic planning may limit innovative thinking, which is important in a dynamic environment (Risseeuw & Masurel, 1994). As Mintzberg (1987) argued that “[s]etting oneself on a predetermined course in unknown waters is the perfect way to sail straight into an iceberg. Sometimes it is better to move slowly, a little bit at a time, looking not too far ahead, but very carefully, so that behavior can be shifted on a moment’s notice” (p. 27). Hamel and Prahalad (1989) proposed the absence of a plan may actually provide benefit in a dynamic or turbulent environment.

Other aspects may influence the inconsistency between strategic planning and firm performance found in research. For example, benefits from strategic planning may not transpire immediately, requiring a longitudinal approach to appropriately research the topic (Brinckmann et al., 2010; Ensley et al., 2003; Schwenk & Shrader, 1993). In addition, researchers typically make an assumption that all strategic plans are good plans (Pearce et al., 1987), but not all leaders have managerial planning skills (Ensley et al., 2003; Heriot & Loughman, 2009). Furthermore, for a good strategic plan to positively influence performance, leaders must effectively and efficiently execute the plan (Mintzberg, 1987). Additionally, researchers rarely examine causality between planning and performance – does planning enhance performance, or does good performance provide resources that allow leaders to engage in strategic planning (Gibson & Cassar, 2002; Schwenk and Shrader, 1993)?

Another possible reason for the contradictory results is the variance researchers apply in operationalizing strategic planning, obfuscating understanding of what strategic planning involves (Miller & Cardinal, 1994; Pearce et al., 1987). Generally, strategic planning is considered a rational process uncovering the threats and opportunities posed by the business’s operating environment, identifying the business’s strengths and weaknesses, and then using that information to formulate a plan creating alignment between the firm and its environment in order to enhance firm performance (Ensley et al., 2003; Risseeuw & Masurel, 1994; Tell, 2012). Nonetheless, some researchers consider strategic planning to have occurred only if a formal written plan was developed (e.g., Gibson & Cassar, 2005; Pearce et al., 1987). In contrast, more recent research applies a less stringent definition, merely asking survey participants whether they engaged in strategic planning (e.g., Eddleston, Kellermanns, & Sarathy 2008; Honig & Samuelsson, 2012; Kellermanns & Eddleston, 2006).

As a small business owner or manager might have a great plan, yet that plan may exist in unwritten form, implicit and abstract, the different approaches are especially relevant to small business (Brinckmann et al., 2010). In a study of small businesses, Brinckmann and colleagues (2010) found a positive relationship between the presence of unwritten plans and firm performance, yet they failed to find a relationship between written business plans and firm performance. As in other research (e.g., Matthews & Scott, 1995; Shrader et al., 1989; Watts & Ormsby, 1990), we apply a simple definition of strategic planning, inquiring if a plan exists and not if a formal written plan exists. Although previous results are mixed, we follow the Brinckmann and colleagues’ (2010) findings indicating strategic planning positively affects small business performance. Thus, we hypothesize that:

**Hypothesis 1.** Strategic planning positively affects small business performance.

**Goal Setting**

The relationship between goal setting and performance has been extensively researched at the individual, group and organizational levels, with more than 1000 studies having been conducted over the past four decades (Seijts & Latham, 2012). Goals affect performance through multiple mechanisms: they provide direction; they energize; they affect persistence (Locke & Latham, 2002); and they “affect action indirectly by leading to the arousal, discovery, and/or use of task-related knowledge and strategies” (Wood & Locke, 1990, p. 707). This goal related energy is best generated by specific and challenging goals. Research
has consistently shown that specific and difficult goals yield greater motivation and better performance than do vague, easy goals (Locke & Latham, 1984; Kleingeld, Mierlo, & Arends, 2011). Most studies have posited a linear relationship between the difficulty of the goal and the level of performance, a trajectory that breaks down only when the goal is perceived to be impossible to achieve (Latham & Steele, 1983; Locke & Latham, 2002).

The goal setting-performance relationship is moderated by several factors, including the needs for goal acceptance and commitment (Locke, Latham, & Erez, 1988; Klein, Wesson, Hollenbeck, & Alge, 1999) and timely feedback on progress, particularly for difficult goals (Bandura & Cervone, 1983). Task complexity (Latham & Yukl, 1975; Wood, Mento, & Locke, 1987), task novelty (Earley, Connolly, & Ekekere, 1989), situational constraints, and/or ability (Locke & Latham, 1984; Seijts, Latham, Tasa, & Latham, 2004) can make setting more difficult goals less effective. Participation in goal development has long been theorized to enhance the relationship between difficult goals and performance by increasing buy-in and commitment, but research findings have been inconsistent (Chacko, Stone, & Brief, 1979; Latham & Locke, 1979; Latham & Steele, 1983; Shalley, Oldham, & Porac, 1987). The goal setting-performance relationship is mediated by the self-efficacy and self-set goals of the individuals doing the work (Lock & Latham, 2002) as well as the strategy developed to achieve the goals (Mitchell & Silver, 1990).

Moving from the individual to group level of analysis adds factors for consideration, including the following: multi-level goals, degrees of goal and task interdependence, and the impact of group efficacy (Mitchell & Silver, 1990). Looking at interdependent group tasks, Mitchell and Silver (1990) unsurprisingly found that setting difficult individual goals resulted in significantly poorer performance than when difficult group goals, or a combination of individual and group goals, were set. However, against prevailing theory, the authors found no significant difference between the performance of teams with group goals and those with no goals at all. A meta-analysis by Kleingeld, Mierlo, and Arends (2011) of the effect goal setting has on group performance offered similarly perplexing results. While the meta-analysis did find a significant advantage for specific difficult goals over nonspecific goals, it found no moderating effect for task interdependence, task complexity, or participation. The relative efficacy of individual and group level goals was found to be contingent on the focus of the individual goals, with “groupcentric” individual goal resulting in positive group performance and “egocentric” individual goals leading to poor group performance. This would seem to indicate that level of analysis is also an important factor in the goal-performance relationship.

Related to organizational goals, Quinn (1977) posited, “The benefits of effective goal setting are greatest when people throughout the organization genuinely internalize the goals and “make them their own” (p. 29). As group level tasks require multilevel goals to unify effort effectively, it has been suggested that organizations need multi-dimensional goals to provide a mechanism for internalization and buy-in at the strategic organizational level (Lindley & Wheeler, 2000). Multi-dimensional goals are defined as strategic reference points that simultaneously reflect internal (such as building competencies) and external (benchmarking) aspirations, as well as the organization’s past and its short- and long-term future (Fiegenbaum, Hart, & Schendel, 1996; Lindley & Wheeler, 2000). To be effective, these multi-dimensional goals must be multi-level and generate “... high levels of agreement among top managers and organizational members regarding the content of their strategic reference points. ...” (Fiegenbaum, Hart & Schendel, 1996, p. 231). At every level, to be successful, setting specific difficult goals must be accompanied by goal acceptance and commitment.

Ordoñez, Schweitzer, Galinsky, and Bazerman (2009) suggest that the efficacy of goal setting has been overstated, and that the potential harms of overemphasizing goals has been largely ignored by researchers. These include a narrowing of focus that reduces a company’s ability to detect and respond to unanticipated threats and opportunities, a culture-sapping increase in internal competition, a propensity towards riskier decisions and behaviors when goals are not met, and an increased probability of unethical behavior when firms desperately strive to close the gap between reality and aspiration, and higher turnover of managers (Schweitzer, Ordoñez, & Douma, 2004; Barsky, 2008; Ordoñez et al., 2009).

The inexorable link between goal setting and the strategic planning process is well-established in the literature. Brinkmann and colleagues (2010) assert that by its very nature, “Planning implies the specification of goals and fosters the identification of effective steps to achieve these goals” (p. 27). Quinn (1977) adds, “[e]ffective strategic goals do more than provide a basis for direction setting and performance measurement. They are essential to establishing and maintaining freedom, morale, and timely problem sensing in an enterprise” (p. 29). Quinn’s observations are consistent with studies that have shown goal setting improves strategy implementation, enhances performance in complex settings (Chesney & Locke, 1991), and increases the speed and efficiency of internal decision making in both strate-
Financial ratio analysis positively affects small business performance.

Financial Ratio Analysis

When managers use financial ratios, they express financial results as proportions or multiples, potentially revealing more information than is typically available from balance sheets, income statements, or cash-flow statements (Delen, Kuzey, & Uyar, 2013; Thomas, & Evason, 1987). Examples of financial ratios include the following: cost of goods sold to sales, inventory turnover, gross margin to sales, net profit to net sales, net profit to inventory, current assets to current liabilities, net sales to inventory, total liabilities to net worth, return on equity, return on investment, days accounts receivable outstanding, days accounts payable outstanding, and inventory to net working capital (Delen et al., 2013; Edmister, 1972; Isberg, 1998; Thomas & Evason, 1987). Financial ratio analysis can enhance business managers’ grasp of liquidity, leverage, operating efficiency, and profitability (Isberg, 1998).

For business owners, managers, and executives, effective decision making is vital. Leaders making important decisions are often aided by accounting numbers, data that may signal the need for change (Delen et al., 2013; Thomas & Evason, 1987). Financial ratios supplement information gleaned from financial statements, enhancing leaders’ ability to improve the efficiency and profitability of their operations, providing more accurate assessment than subjective evaluations often utilized (Delen et al., 2013). Financial ratios help small business owner-operators understand these important viewpoints: where the business has been, where the business is now, and where the business is going (Patrone, 1981). In addition, the use of financial ratios facilitates the monitoring of decision outcomes, developing strategies and related performance targets, and assessing potential capital investments (Isberg, 1998). Therefore, it is reasonable to expect that firms with leaders who analyze financial ratios would outperform firms with leaders who do not analyze financial ratios (Thomas & Evason, 1987).

Nonetheless, researchers suggest that few small business owner-managers engage in financial ratio analysis (e.g., DeThomas & Fredenberger, 1985; Halabi et al., 2010). Based upon qualitative research, Patrone (1981) learned that most small business owner-managers take the position: “. . . don’t need to know about financial ratio analysis – I leave that up to my financial accountant” (p. 35). However, Patrone (1981) countered that “ratios may be . . . [the] tip of an iceberg. A ratio has little meaning by itself. It only becomes meaningful when compared to a budgetary expectation, past ratios, ratios of competitors, or published industry averages” (p. 37), implying that for small business owner-managers to really gain from financial ratio analysis, they must dig deeper into the numbers as opposed to simply viewing an accountant’s report. Patrone’s suggestion of a general lack of interest in analyzing financial ratios is consistent with later findings by Halabi and colleagues (2010). McMahon and Holmes (1991) suggested that reactive and shortsighted small business owner-managers may not invest time and effort into learning how to use financial ratios, much less expend the time required to regularly analyze the ratios.

Research results regarding the relationship between financial ratio analysis and small business performance is mixed. Thomas and Evason (1987) did not find a correlation between financial ratio analysis and profitability in small businesses, and they proposed two possible explanations: the inability of the managers represented in the survey to accurately interpret financial ratios, and the inability of the managers to make effective decisions based upon the financial ratios. Through qualitative exploratory study of 102 small businesses, McMahon and Davies (1994) found no evident association between financial ratio analysis and performance. Although most small business owner-managers can acquire the ability to analyze financial ratios, apparently, few do so. Nevertheless, in recent decades a change has occurred which may facilitate the analysis of financial ratios in small business: available hardware and software that facilitates the generation of usable financial data in small businesses (Halabi et al., 2010).

Nonetheless, Dahmen and Rodríguez (2014) found a positive relationship between small business owner-manager financial evaluation, including financial ratio analysis, and firm performance. In the context of the potential advantage financial ratio analysis may provide small businesses, the increased availability of financial data in small businesses, and Dahmen and Rodriguez’s (2014) results, we hypothesize that:


The three hypotheses described above are illustrated in the following model:
Comprehensive Strategic Approach: The Higher-Order Component

Hierarchical component models encompass two layers of constructs. In hierarchical component models, higher-order components capture abstract constructs, and lower-order components capture subdimensions of higher-order components (Hair et al., 2017; Wetzels et al., 2009). Below we discuss the higher-order component developed and tested in the present study, a comprehensive strategic approach.

Schwenk and Shrader (1993) suggested, “The question then no longer is ‘does strategic planning affect small firm performance?’ Rather, it is ‘under what conditions is performance enhanced by small firm strategic planning?’” (p. 61)? We alter Schwenk and Shrader’s question a bit, turning from the antecedents of performance enhancing strategic planning to explore what combination of management activities related to strategic planning may positively affect small business performance.

Strategic planning provides a roadmap of steps for the path of accomplishing organizational goals by facilitating thorough consideration of feasible options and enhancing internal communication and interaction (Powell, 1992). Strategic planning is a facilitating process (Kellermanns & Eddleston, 2006), integrating a firm’s goals with a road map of actions directed at achieving those goals. Meaningful financial ratio analysis also includes setting business goals and articulating a strategy for obtaining those goals (Isberg, 1998). Brinckmann and colleagues (2010) recount that early planning scholars (e.g., Andrews, 1971; Ansoff, 1965; Armstrong, 1982; Porter, 1985) included in their description of business planning the following components: designation of goals, generation of a plan to reach these goals, and evaluation as well as implementation control.

Related, the three lower-order components measured in the present study represent small business leaders’ attention to three questions:

1. What goals do we want to accomplish?
2. What is our plan for accomplishing our goals?
3. Are we making progress toward accomplishing our goals?

From this literature, we propose the three lower-order components in our model (goal setting, strategic planning, and financial ratio analysis) fit well together, forming a higher-order component, a comprehensive strategic approach; thus, we hypothesize that:

Hypothesis 4. Goal setting, strategic planning, and financial ratio analysis form a higher-order component (comprehensive strategic approach).

Also from the literature, given the potential positive operational effect on small business performance by combining goal setting, strategic planning, and financial ratio analysis we propose this hypothesis:

Hypothesis 5. A comprehensive strategic approach positively affects small business performance.

Figure 1 illustrates hypotheses 4 and 5.

Research Methods and Sample

The purpose of this study is to examine the relationship between strategic planning and firm performance. Consistent with prior research (e.g., Eddleston & Kellermanns, 2007), we used a self-reported perceptual measure of firm performance. Such self-reported measures typically are highly correlated with absolute measures of firm performance (Shepherd & Wiklund, 2009; Honig & Samuelsson,
Using a 7-point Likert scale, we asked respondents to assess their firms’ performance relative to their competitors in eight areas representing overall firm financial performance. These items are included in the appendix, as are all our measurement items. Cronbach’s Alpha for our firm performance construct was 0.933. To measure the extent of strategic planning, we employed three survey items utilized by Eddleston, Kellermanns, and Sarathy (2008) and Kellermanns and Eddleston (2006) as modified from Gould (1979) (see appendix). Cronbach’s Alpha for our strategic planning construct items was 0.859. We asked respondents to assess their firms’ goal setting on three items that were adopted from prior research (Robinson & Pearce, 1983; Powell, 1992) (see appendix). Cronbach’s Alpha for our goal setting construct was 0.828. We asked respondents to assess their firms’ participation in and utilization of their industry trade association’s annual financial statement studies and ratios report (see appendix). Such self-reported utilization of financial ratios is consistent with prior research (e.g., McMahon & Davies, 1994; Thomas & Evanson, 1987). Cronbach’s Alpha for our ratio analysis construct was 0.780.

Our second theoretical model (see Figure 2) integrates three lower-order components: strategic planning, goal setting, and ratio analysis. These three lower-order components are combined into a higher-order component (comprehensive strategic approach). The result is a parsimonious framework that is consistent with prior conceptualizations of strategic planning as a higher-order component (e.g., Batra, Sharma, Dixit, & Vohra, 2016). Cronbach’s Alpha for our comprehensive strategic approach construct was 0.812.

In small business studies, research has shown that strategic planning is related to firm size, with smaller firms typically exerting less effort (Gibson & Cassar, 2002; Rissieeuw & Masurel, 1994). Thus, we controlled for firm size in both sales and employment levels. The path coefficient for sales was 0.034 (t = 0.535; p = 0.594), while the path coefficient for employment was -0.004 (t = 0.057; p = 0.955). Therefore, neither control was statistically significant.

**Data Collection**

The questionnaire was administered online by Qualtrics® to members of a trade association for printing companies, Printing Industries of America. Multiple attributes of the printing industry make it an appropriate sample for this study. First, the average PIA member firm has 47 employees; thus, most printing firms are small businesses. Second, although we draw data from one industry, given recent technological advances printing companies are quite diverse, with companies offering a range of products and services unique to each firm. And third, a wide range of performance exists among PIA member firms; 25% of PIA member firms earn a net profit of 10% of revenue or greater, yet the other 75% operate at breakeven or just below. Two hundred and thirty-one (231) responses were obtained from the 3,238 PIA members who received an invitation to participate, a 7.13% response rate. Respondents were CEO/C-level executives and senior management above the level of vice-president. In our sample, the average number of full-time employees was 44, while sales averaged $9,347,189. The sample size in this study exceeded the minimum recommended level of 189 for this research, assuming a statistical power of 0.80 and considering the model specification, significance level, and anticipated R² value (Hair, et al., 2017).

**Methodology, Results, and Analysis**

Because the scope of this research is exploratory and the focus of the structural model is predictive, partial least squares structural equations modeling (PLS-SEM) was chosen based upon hierarchical modeling constraints (Hair, et al., 2017). PLS-SEM is better suited for studies in which the phenomenon under consideration is evolving or in which the theoretical framework is not well developed (Hair et al., 2017; Hair, Ringle, & Sarstedt, 2011; Patel, Manley, Hair, Ferrell, & Pieper, 2016). PLS-SEM is commonly used in international business (Henseler, Ringle, & Sinkovics, 2009), strategic management (Hair, Sarstedt, Pieper, & Ringle, 2012), and marketing (Hair, Sarstedt, Ringle, and Mena, 2012). Finally, PLS-SEM is the preferred approach when the purpose is theory development or extension and when researchers are examining composite-based measurement models such as in this study (Astrachan, Patel, & Wanzenried, 2014).

**Model One: Hypotheses One, Two, and Three**

The first model, testing hypotheses one, two, and three, was examined using SmartPLS (Ringle, Wende, & Becker, 2015). Guidelines for assessment of the model and sample size were applied according to Hair and colleagues (2017). The measurement model included nine measures of the three exogenous constructs (strategic planning, goal setting, and ratio analysis), eight measures of overall firm performance, and two control variables. The measurement model, including the measurement and structural model results, is shown in Figure 3.

The outer model was examined first. Composite reliability ranged from 0.847 to 0.945, exceeding the minimum requirement of 0.70 (Hair, Black, Babin, & Anderson, 2013). The outer loading for the variables PIA_1 and REL_...
PERF_4 were 0.684 and 0.636, respectively. Furthermore, loadings for the other 15 indicators exceeded the minimum standard of 0.70 (Hair et al., 2013). The average variance extracted (AVE) for the constructs ranged from 0.653 to 0.781, thus demonstrating convergent validity by exceeding the minimum standard of 0.50 (Hair et al., 2013). Finally, the constructs were evaluated using confirmatory tetrad analysis (CTA) in accordance with the recommendations of Hair and colleagues (2017). CTA results confirmed that all of the indicators in the measurement model are appropriately specified as reflective (Table 1).

![Figure 3. Measurement and structural model with results for Hypotheses 1, 2, & 3.](image_url)

Table 1

<table>
<thead>
<tr>
<th>Composite</th>
<th>Reliability</th>
<th>Average Variance Extracted (AVE)</th>
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<tbody>
<tr>
<td>Firm Performance</td>
<td>0.945</td>
<td>0.686</td>
</tr>
<tr>
<td>Strategic Planning</td>
<td>0.914</td>
<td>0.781</td>
</tr>
<tr>
<td>Goal Setting</td>
<td>0.896</td>
<td>0.741</td>
</tr>
<tr>
<td>Ratio Analysis</td>
<td>0.847</td>
<td>0.653</td>
</tr>
</tbody>
</table>

Based upon the guidelines established by Hair and colleagues (2017), discriminant validity was evaluated using two approaches. All of the square roots of the AVEs for the four constructs were higher than the inter-construct correlations, thus demonstrating initial discriminant validity according to the criterion established by Fornell and Larcker (1981). The heterotrait-monotrait (HTMT) criterion (Henseler, Ringle, & Sarstedt, 2015) also demonstrated discriminant validity, with all of the constructs exhibiting ratios of less than 0.85. Thus, discriminant validity was demonstrated for all of the constructs under consideration.

With all of the constructs confirmed as reliable and valid, the structural model results were assessed. To obtain the significance levels of the various path coefficients, the bootstrapping option was run using 5,000 subsamples (Hair et al., 2017). Table 2 shows the coefficients and significance levels, as well as summarizes the results of the hypotheses tests. An analysis of the path coefficients and levels of significance shows that hypothesis two was supported; hypotheses one and three were both rejected.

Hierarchical Component Model: Hypotheses Four and Five

Next, the hierarchical component model testing hypotheses four and five was examined, also using SmartPLS (Ringle et al., 2015). As with the first model, guidelines for assessment of the hierarchical component model and sample size were applied according to Hair and colleagues (2017). The measurement model included nine measures of the three exogenous constructs (strategic planning, goal setting, and ratio analysis), eight measures of overall firm
performance, and two control variables. The measurement model, including the measurement and structural model results, is shown in Figure 4.

The outer model was examined first. Composite reliability ranged from 0.853 to 0.945, exceeding the minimum requirement of 0.70 (Hair et al., 2013). The outer loading for the variable and REL_PERF_4 was 0.646. However, indicator loadings for the other 16 indicators exceeded the minimum standard of 0.708 established by Hair and colleagues (2013). The average variance extracted (AVE) for the constructs ranged from 0.685 to 0.781, thus demonstrating convergent validity by exceeding the minimum standard of 0.50 (Hair et al., 2013). Finally, the constructs were evaluated using confirmatory tetrad analysis (CTA) in accordance with the recommendations of Hair and colleagues (2017). CTA results confirmed that all of the indicators in the measurement model are appropriately specified as reflective.

Discriminant validity was again evaluated based upon the guidelines established by Hair and colleagues (2017), using the Fornell & Larcker (1981) criterion as well as the HTMT criterion (Henseler et al., 2009). Similar to the first model, discriminant validity was demonstrated for all of the constructs under consideration. With all of the constructs confirmed as reliable and valid, the structural model results were assessed. To obtain the significance levels of the various path coefficients, the bootstrapping option was run using 5,000 subsamples (Hair et al., 2017). Table 2 shows the coefficients and significance levels, as well as summarizes the results of the hypotheses tests. An analysis of the path coefficients and levels of significance shows that both hypotheses four and five were supported.

To better understand the relationship between the various constructs under consideration, the F effect size and Q² blindfolding were examined. The effect sizes of the predictive constructs (strategic planning, goal setting, and ratio analysis) of 0.022, 0.057, and 0.040, respectively, are small (Cohen, 1992). At the same time, the Q² of 0.077 indicates a small to medium predictive relevance for the model (Hair et al., 2017). Table 3 shows the means, standard deviations, and Pearson’s correlations for all of the constructs included in this study.

**Discussion**

Small business managers are stretched thin. There are many tasks to do and limited resources with which to do them. Consequently, optimizing limited time and resources is of utmost importance to a small business manager. We have explored three commonly researched constructs in the strategic management literature: goal setting, strategic planning and financial ratio analysis. At the core, all three constructs involve gathering relevant information, making
sense of it, and utilizing it for the future betterment of the firm. Such behaviors certainly would seem beneficial; but surprisingly, nearly 50 years of research has failed to prove that they are.

As previously mentioned, while hypotheses one and three were rejected, hypotheses two, four and five were supported. We will begin by examining the two unsupported hypotheses. The finding that strategic planning ($H_1$) and financial ratio analysis ($H_3$) are not significantly associated with firm performance is unsurprising in light of the mixed results found in prior research. With regard to hypothesis one, it is worth noting that the coefficient of the relationship between strategic planning and firm performance is positive and has a $p$-value of .14. Despite a lack of statistical significance, there may be some practical significance revealed. Strategic planning is likely a necessary but not sufficient component of a firm’s strategic approach.

Now we examine our three hypotheses that were supported. Hypothesis two suggested goal setting will have a positive impact on firm performance. We found strong support ($p<.01$) for this hypothesis, highlighting the importance of establishing performance targets to keep a firm on track financially. This is an interesting finding in itself, but the results of hypotheses four and five are more informative and intriguing.

The finding that strategic planning, goal setting, and financial ratio analysis together comprise a comprehensive comprehensive sense of it, and utilizing it for the future betterment of the firm. Such behaviors certainly would seem beneficial; but surprisingly, nearly 50 years of research has failed to prove that they are.

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The lack of support for hypothesis three (financial ratio analysis) is more striking. There seems to be very little value ($p=.87$) to only analyzing financial ratios. One potential reason for this finding is the context from which the sample was drawn. The PIA publishes a yearly report referred to in the industry as the “ratio studies.” Most printing companies are all using an industry supplied group of financial ratios, it will be difficult to explain much variance in performance with this construct.

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The finding that strategic planning, goal setting, and financial ratio analysis together comprise a comprehensive

<table>
<thead>
<tr>
<th>Structural Relationships</th>
<th>Path Coefficient</th>
<th>T Statistic</th>
<th>P Value</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Planning → Firm Performance</td>
<td>0.130</td>
<td>1.468</td>
<td>0.142</td>
<td>$H_1$</td>
</tr>
<tr>
<td>Goal Setting → Firm Performance</td>
<td>0.272</td>
<td>3.036</td>
<td>0.002</td>
<td>$H_2$</td>
</tr>
<tr>
<td>Ratio Analysis → Firm Performance</td>
<td>0.014</td>
<td>0.164</td>
<td>0.869</td>
<td>$H_3$</td>
</tr>
<tr>
<td>Strat. Planning → Comp. Strat. Approach</td>
<td>0.546</td>
<td>22.827</td>
<td>0.000</td>
<td>$H_{4a}$</td>
</tr>
<tr>
<td>Goal Setting → Comp. Strat. Approach</td>
<td>0.513</td>
<td>20.582</td>
<td>0.000</td>
<td>$H_{4b}$</td>
</tr>
<tr>
<td>Ratio Analysis → Comp. Strat. Approach</td>
<td>0.175</td>
<td>3.183</td>
<td>0.001</td>
<td>$H_{4c}$</td>
</tr>
<tr>
<td>Comp. Strat. Approach → Firm Performance</td>
<td>0.354</td>
<td>6.239</td>
<td>0.000</td>
<td>$H_5$</td>
</tr>
</tbody>
</table>

Table 3

Descriptive Statistics and Pearson’s Correlations of Study Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Strategic Planning</td>
<td>5.09</td>
<td>6.95</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.11</td>
<td>-0.07</td>
</tr>
<tr>
<td>2  Goal Setting</td>
<td>4.94</td>
<td>1.25</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.11</td>
<td>-0.07</td>
</tr>
<tr>
<td>3  Ratio Analysis</td>
<td>0.39</td>
<td>0.40</td>
<td>-0.07</td>
<td>0.11</td>
<td>0.01</td>
<td>-0.07</td>
</tr>
<tr>
<td>4  Comprehensive Strategic Approach</td>
<td>10.41</td>
<td>7.02</td>
<td>0.98**</td>
<td>0.16*</td>
<td>0.01</td>
<td>-0.07</td>
</tr>
<tr>
<td>5  Firm Performance</td>
<td>3.879</td>
<td>5.62</td>
<td>-0.01</td>
<td>-0.04</td>
<td>0.03</td>
<td>-0.01</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
strategic approach (H5) that is positively correlated with firm performance (H4) suggests that a comprehensive strategic approach is an important predictor of firm financial performance. The results of the first three hypotheses suggest only goal setting, in isolation, is an important predictor of firm performance. We believe the results from hypotheses four and five shed important light. Strategic thinking and financial ratio analysis are not, by themselves, important predictors of firm performance but are key components of an overall strategic orientation of the firm. It would not make sense for a firm to analyze financial ratios without supplementing that action with goal setting to improve its current standing as related to those ratios. As an example, consider a small retail business operating from one location, the owner-managers may develop the goal of expanding into another community by opening a second location. Further, the owner-managers develop a strategy to address the needs of customers close to the new location. After opening the second location, the owner-managers analyze their firm’s financial ratios, seeking to identify needed adjustments in their strategic and tactical plans. From the research findings presented here, we propose the owner-managers’ application of goal setting, strategic planning, and financial ratio analysis enhances their probability of success. Given our findings, small business owner-managers might consider seeking training in goal setting, strategic planning, and financial ratio analysis through Small Business Development Centers, universities, or local colleges. Furthermore, small business owner-managers might proactively seek industry financial ratio averages to which they can benchmark their firms.

From a prescriptive standpoint, our results suggest a possible solution to the confusing and contradictory past findings. The true benefit for a firm appears to lie not in any one particular action but in a conglomeration of strategic thinking approaches. Despite the concern of “paralysis by analysis” that may characterize small business managers’ views of goal setting, strategic planning and/or financial ratio analysis, the results presented above suggest the three components should be viewed as component parts of a higher component (for research) and as useful endeavors (for practice).

Limitations and Future Research

We next recognize certain limitations to our research and provide suggestions for future research. First, our sample consists of primarily small printing companies. Thus, our findings are limited to one industry, which may limit the generalizability of the results. Future research should examine the degree to which our findings, particularly the emergence of the second order construct, apply in other contexts.

Second, despite the well validated subjective performance measures utilized in this study, they are still subjective in nature and susceptible to respondent bias. We believe the degree of exposure to bias is limited due to the C-level respondents in this study. CEOs are likely the best informed to assess subjective performance. Because there is the possibility of respondent bias, it would be helpful to assess changes in firm performance over a period of time utilizing a longitudinal study design. Ideally, such a longitudinal design would utilize more objective and absolute performance measures such as growth in sales and growth in employment. Although such measures are considered ideal (Shepherd & Wiklund, 2009; Wiklund & Shepherd, 2003), small business owners are quite reluctant to report sensitive financial information and objective performance data from small businesses are often obscured by accounting irregularities (Dess & Robinson, 1984; Love, Priem, & Lumpkin, 2002; Venkatraman & Ramamurti, 1986). Nonetheless, both Dess and Robinson (1984) and Venkatraman and Ramamurti (1987) found strong correlations between objective and subjective financial performance measures.

Third, and likely most important, is the static nature of the study. Benefits from strategic planning may not transpire immediately, requiring a longitudinal approach to research the topic appropriately (Brinckmann et al., 2010; Ensley et al., 2003; Schwenk & Shrader, 1993). Finally, researchers typically make an assumption that all strategic plans are good plans (Pearce et al., 1987). We know some executives are naturally better at the strategic planning process than others, better informed regarding relevant data, and/or better at implementing a strategic plan once it is in place. As researchers, it is extremely difficult to assess the quality of a strategic plan. Again, one way to do this would be to employ a longitudinal design wherein the comprehensive strategic approach is measured first and then change in firm performance is measured at a later time.

Conclusion

We believe the results of our study inform both research and practice regarding the usefulness of strategic planning, financial ratio analysis and goal setting. Our results introduce the emergence of a second order construct, comprehensive strategic approach, and suggest a combination of planning tools is better than any of them alone. We believe this second order construct provides a fruitful area for future research.

References

Andersen, T. J. (2000). Strategic planning, autonomous


Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18*(3), 382-388.


Dynamics, 41(1), 1-6.

Appendix – Survey Items

Financial Performance
On a 7-point Likert scale where 1 = much worse, 2 = worse, 3 = slightly worse, 4 = about the same, 5 = slightly better, 6 = better, and 7 = much better, respondents were asked to rate the performance of their businesses on each of the following items over the last year:

1. Relative to my competitors, my business’ growth in sales is...
2. Relative to my competitors, my business’ growth in profitability is...
3. Relative to my competitors, my business’ growth in market share is...
4. Relative to my competitors, my business’ growth in number of employees is...
5. Relative to my competitors, my business’ return on equity is...
6. Relative to my competitors, my business’ return on total assets is...
7. Relative to my competitors, my business’ net profit margin (return on sales) is...
8. Relative to my competitors, my business’ ability to fund growth from profit is...

Strategic Planning
On a 7-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree, respondents were asked to respond to the following statements:
1. We have a strategy for achieving our business goals.
2. We have a plan for our business.
3. We know what we need to do to reach our business goals.

**Goal Setting**

On a 7-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree, respondents were asked to respond to the following statements:

1. We have broad, long-range goals known to all managers.
2. We have specific, short-term goals known to all managers.
3. In our company’s strategic process, we emphasize formulating goals and targets to be achieved in the competitive environment.

**Ratio Analysis**

Using a categorical measure where 0 = no and 1 = yes, respondents were asked to respond to three statements:

1. Each year, we participate in the PIA Ratio Studies.
2. Each year, we benchmark our performance to the PIA Ratio Studies results.
3. Each year, we use the PIA Ratio Studies in making strategic decisions.