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Turkish SMEs' Use of Financial Statements for Decision Making

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Turkish SMEs' Use of Financial Statements for Decision Making

With a sample of 91 small Turkish firms, this study examines the factors that affect the use of financial statements, and the important information they contain, to make decisions. A principal components analysis identifies three key variables that determine the use of financial statements: experience, confidence, and knowledge. Logit analysis reveals that these three variables are significantly associated with whether Turkish business owners use financial statements to make decisions. These results can help business owners and service providers for these businesses understand what affects their use of financial statements and the process by which financial statements get incorporated into decisions.

Turkish SMEs' Use of Financial Statements for Decision Making

Financial statements help managers and other stakeholders evaluate financial information and thus gain a better understanding of many financial aspects and risk attributes of their firm. Although the use of financial statements can lead to better decision-making capacity, owners of small firms often do not have the needed expertise to interpret and use their financial statements effectively. Even reliable and timely financial statements are insufficient if owners do not know how to evaluate the information (Van Auken, 2005).

The use of financial statements is closely linked to and supportive of the firm's operations and strategic goals, especially because decisions made without regard to their financial impact can lead to a vague company focus and financial distress (Horngren et al. 2009). The importance of appropriate financial management decisions is clear from the high discontinuance and failure rates among small firms, often attributed to their poor financial management (Carter and Van Auken, 2006; Coleman, 2002; Headd, 2003; van Praag, 2003; Wiklund and Shepherd, 2005). Owners of small firms often lack the finance skills needed to use their financial statements or fully understand the impact of their decisions on firm operations, profitability, and survival (Timmons and Spinelli, 2004). In contrast, owners who can use their financial statements can evaluate the impact of their decisions and assess the available financial information to manage their business (Breen, Sciulli, and Calvert, 2004; Shields, 2010). In addition, the usage and interpretation of financial statements can be influenced by owners' perceptions of their firms' financial position and potential. Entrepreneurs generally are optimistic about their firm's financial potential, which can lead to inaccurate assessments of their potential profitability, liquidity, and financial distress (Landier and Thesmar, 2009; Smith, 2011). However, if they achieve better interpretations and make appropriate uses of the information

contained in financial statements, owners could develop more accurate perceptions of the situation and thereby make more informed decisions (Breen, Sciulli, and Calvert, 2004).

To address the issues associated with owners' uses of financial statements, this study identifies factors that might determine whether the owners of a sample of small Turkish firms use financial statements when making decisions. Financial statements and their use affect all stakeholders, yet little research examines how small to medium-sized enterprises (SMEs) employ financial statements when making decisions (Shields, 2010). The important information in those financial statements must be incorporated into any firm's operational and strategic decision-making processes, because ignoring or misusing it would harm all areas of the firm: unreliable operations, ineffective marketing, and an inability to hire qualified personnel (McMahon, 2001; Timmons and Spinelli, 2009).

This study investigates the use of financial statements by SMEs in a developing country and thereby addresses another gap in prior literature that tends to focus on developed economies. First, this article presents an in-depth analysis of the factors associated with whether SMEs use financial statements when making decisions. Second, the investigation demonstrates how specific factors (experience, confidence, and knowledge) relate to whether owners of Turkish SMEs use financial statements to make decisions. Such issues have not been examined in prior literature, despite the important contributions that SMEs make to economic growth, employment, and wealth creation. This study goes beyond academic contributions that describe how financial statements should be used, by examining how owners of SMEs actually use them. In practice, the ineffective use of financial statements for decision making exposes SMEs to the risk of failure.

SMEs in Turkey

Turkey, a middle-income country located between Europe and Asia, has a gross domestic product (GDP) of about \$734.6 billion and per capita GDP of about \$12,260. It ranks among the 10 big emerging markets and 44th of 148 countries on the 2012 global competitiveness index (OECD, 2010). Approximately 99.8% of the businesses in Turkey are SMEs; they account for 77% of total employment. Furthermore, 98% of the SMEs are micro enterprises (Karpak and Topcu, 2010), and most of them operate in a services sector (OECD, 2010). Considering the high inflation, deep recessions, and exchange rate instability that mark the economy, SMEs in Turkey have been operating in an unstable environment for many years, and the government's economic policies have largely worsened this instability (Karpak and Topcu, 2010).

In an effort to improve the quality of financial information, international accounting standards began to emerge in the 1990s; the International Financial Reporting Standards (IFRS) for SMEs were introduced in Turkey in 2010, with a mandatory initiation as of 2012. Recent debate questions the applicability of these requirements for firms of all sizes, such as whether micro enterprises should be excluded from the mandate. The ambiguity about which firms are subject to the requirement remains unresolved. However, under new regulations, slated to start in 2014, the role of accountants and auditors will increase significantly. To head off potential problems with the IFRS implementation, Turkey created intensive training programs for accountants. In addition to coping with the major changes generated by IFRS, Turkish SMEs also confront challenges associated with poor access to finance and lack of internationalization. In an effort to eliminate these barriers, enhancing their ability to use financial data to support decision making may be crucial (Ibicioglu et al, 2010).

Small Firms' Use of Financial Statements

Traditional finance theory relies on the assumption of freely and widely available information that gets transmitted rapidly, providing transparency and consistency to stakeholders (Brigham and Ehrhardt, 2013). Lang, Calantone, and Gudmundson (1997) emphasize that such reliable and accurate information is a basis for good decisions. However, large, publicly traded firms that must meet government reporting requirements are more likely to match these assumptions than are private companies, especially small ones. The flow of information across small firms often is restricted by constraints that arise from poor information quality, a lack of motivation or experience by owners, limited resources, and high agency costs (Madrid-Guijarro, Van Auken, and Garcia, 2009).

Financial statements offer an important source of information for all stakeholders, as well as one of the most powerful sources of information available to small firms (Timmons and Spinelli, 2009). That is, these statements provide information to investors and lenders, but they also are important to business owners and decision makers. The importance of accurate financial statements is reinforced by the negative impact of poor financial decisions and management on failure rates among small firms (van Praag, 2003). Owners of small firms often lack strong business skills and have a relatively weak understanding of the process for creating and interpreting financial statements to support their decision making (Van Auken, 2001). They also must make their decisions in frequently uncertain environments, without complete information, which is an unrealistic standard (Busenitz and Barney, 1997; Busenitz et al., 2003).

Instead, accurate financial information needs to provide the foundation for making good decisions; it also can ensure some degree of consistency and reliability in predictions about the impacts of alternative scenarios (Timmons and Spinelli, 2009). The appropriate analysis of financial information often determines the quality of the decisions made by SMEs (Busenitz et

al., 2003), which are especially vulnerable to the impact of poor decisions, because of their limited access to resources. Mitchell et al. (2007) also report that entrepreneurs often use biases or heuristics to make decisions, because doing so can simplify situations and enable decisions in situations in which owners lack all of the necessary information (Busenitz and Barney, 1997). However, such reliance on heuristics can lead to decision errors that harm the business.

Business owners who lack knowledge about the issues related to the financial impact of their decisions may incur unnecessary business and financial risks, greater than the associated rewards. This information or knowledge gap is especially detrimental if small firms do not use their financial statements to make decisions. The lack of financial information, incorrect information, or incorrect use of information may result in illiquidity, financial distress, and failure (Van Auken, 2005).

Research Issues

Financial statements provide important objective information that reveals the impact of decisions on business operations. For example, a scenario analysis can demonstrate the nature of the risk and financial outcomes associated with any particular decision. Business owners who lack objective information about the likely impact of their decisions may make choices that create risk and reduce potential returns (Van Auken, 2001). Small firms also tend to be less financially sophisticated (McMahon, 2001; McMahon and Stanger, 1995), so they rarely use financial statements when making decisions (Halabi, Barrett, and Dyt, 2010). Romano and Rataunga (1994) and Romano, Tanwowski, and Smyrnios (2001) recognize that decision making in small firms is complex and involves many factors; Busenitz and Barney (1997) caution that limited experience and overconfidence often leads to inappropriate decisions, in which case small firms are particularly vulnerable to the negative outcomes, because of their limited

resources. Owners who understand the content and value of financial statements therefore are more likely to use their statements more often. This understanding of the value of financial statements, especially in decision contexts, may be affected by several factors (Carragher and Van Auken, 2013).

First, financial statements are not the only tools used for decision making. Owners may rely on their biases or heuristics (Busenitz and Barney, 1997; Busenitz et al., 2003) and thereby make uninformed decisions that result in financial distress. Second, the use of poor quality financial statements that provide inaccurate information could lead to ineffective decisions that cause financial distress. Firms that understand what constitutes a good quality financial statement and how to use it as part of their decision-making process are better positioned to make good decisions (Carragher and Van Auken, 2013).

Few published studies examine the use of financial statements by small businesses. Bruns and McKinnon (1993) report that the business owners want better information, because the quality of financial information determines the effectiveness of their decisions (Berger and Udell, 1998; Gibson, 1992). Traditional finance theory assumes rational decision making, but behavioral finance also acknowledges the potential influence of overconfidence and optimism on decisions (Barberis and Thaler, 2002; Ritter, 2003). Sian and Roberts (2009) note that owners' understanding of financial statements varies widely, such that they often are confused by financial information. The complexity of financial statements also can make them less useful to SME owners, who rely on their accountants to explain the information to them (Shields, 2010). A lack of financial skills can signal the need for training, to teach owners how to use financial statements (Berger and Udell, 1998; Cassar and Ittner, 2008), though owners who are more experienced and have greater abilities and more confidence in their financial statements should

be more likely to rely on external accountants for advice, because they understand the importance of receiving and using accurate statements (Cassar, 2009; Sian and Roberts, 2009).

Figure 1 details how an owner's background might affect her or his use of financial statements in decision making. In particular, background effects appear important with regard to understanding financial statements, which implies that the owner can interpret, analyze, and apply the financial information contained in the statements. The owner's background encompasses training and experience related to the ability to interpret and use financial statements. Without an appropriate background, owners likely cannot use their financial statements, which may lead to poor financial management, bad decisions, and a potential for biased decision making that risks the firms' viability. This reasoning leads to the following hypotheses:

H1: Owners who use financial statements to make decisions have more confidence in their financial decisions than owners who do not use financial statements to make decisions.

H2: Owners who use financial statements to make decisions have more business experience than owners who do not use financial statements to make decisions.

H3: Owners who use financial statements to make decisions have greater knowledge about financial statements than owners who do not use financial statements to make decisions.

Methodology

Sample and Questionnaire

The questionnaire for this study was based on research by Carraher and Van Auken (2013) and adapted to reflect the specific issues relevant to Turkey's operating environment. Carraher and Van Auken's (2013) questionnaire stemmed from focus group discussions and items from prior research on small firm finance decisions (Ang, 1992; Busenitz et al., 2003; Carter and Van Auken, 2006; Kuratko, Hornsby, and Naffziger, 1997; McMahon and Stanger, 1995; Petty and

Bygrave, 1993; Van Auken 2005). In the final questionnaire, a first section asked respondents about the characteristics of their firm, including its age, organizational structure, type, total assets, and revenue, as well as the gender of the owner. The second section focused on the use of financial statements, including the frequency of financial statement preparation, confidence in the accuracy of financial statements, and ability to interpret financial statement information.

The data were collected from members of the Konya Chamber of Industry in Konya, Turkey. Konya is located in central Anatolia and has a population of 1.1 million. The sample represented members of the city Chamber of Commerce, so it should be representative of the business community in that city. The assistance of the Chamber of Commerce led to a 100% response rate to the questionnaire. This geographic specificity also offered several additional advantages. First, it facilitated the data collection—a benefit that is especially relevant considering the regional differences that might exist among owners of small firms. Second, using data from a single area minimizes the number of extraneous variables. For example, various areas of the country could exhibit different levels of support for small firms and variations in banking practices associated with financial statement requirements (Carter and Van Auken, 2006). The owners served as the respondents for this study, because of their importance as decision makers, and because their perceptions shape strategic behavior (O'Regan and Sims, 2008; Van Gils, 2005). Thus, the 91 useable questionnaires came from owners of Turkish SMEs.

Analysis

To organize that data into sets with common themes, associated with the use of financial statements to make decisions, this study used principal components analysis with a Varimax rotation. Principal components analysis reduces a data set with multiple dimensions into a set of components with similar relationship structures; for this study, the variables used were likely to

be associated with an owner's decision to rely on financial statements, as identified from previous studies (Ang, 1992; Busenitz et al., 2003; Carter and Van Auken, 2006, 2008; Cassar, 2009; Kuratko, Hornsby, and Naffziger, 1997; McMahon and Stanger, 1995; Petty and Bygrave, 1993; Van Auken, 2005). They also were the variables used by Carraher and Van Auken (2013), namely, (1) age of the owner; (2) owner's industry experience (years); (3) how often financial statements were prepared (monthly, quarterly, annually, never); (4) confidence in the accuracy of financial statements; (5) confidence in own ability to interpret financial statements (1 = "very confident," 7 = "not confident"); (6) number of new businesses the owner had started; (6) owner confidence in own ability to interpret financial statement information (1 = "not confident," 7 = "confident"); (7) average owner's ranking of the importance of the following factors to effective competitiveness: expand products/services sold, introduce new products, open up new markets, find new suppliers, improve quality of existing products/services, improve business process flexibility, improve customer communication, and reduce costs of products/services sold (1 = "not important," 7 = "very important"); and (8) venue in which the owner learned financial knowledge (on-the-job training, self-taught, college-based education, training course).

The variables were grouped into related sets, using principal components analysis. Factor coefficient values of .5 or greater identified the related variables for each factor. Subsequently, a Spearman correlation analysis served to assess the correlations between the independent variables. This coefficient estimation is a non-parametric technique, based on ranks rather than the values of responses, which was appropriate for this study because of the uncertainty about the population distribution.

A logit regression model examined the interaction between the use of financial statements to make decisions and the factors from the principal component analysis. The dependent variable

for the logit model was whether owners used financial statements to make decisions (1 = “yes,” 0 = “no”). The independent variables were the three factors from the principal component analysis. Regression analysis is common in entrepreneurship research, because it appears to offer the most suitable method for understanding the relationship between the dependent and independent variables. It is especially relevant for analyzing how the dependent variable changes as the independent variable shifts. The regression model was:

$D = B_0 + B_1(\text{Education}) + B_2(\text{Assets}) + B_3(\text{Confidence}) + B_4(\text{Experience}) + B_5(\text{Knowledge}) + \varepsilon$,
where

D = whether owner used financial statements to make decisions (1 = “yes,” 0 = “no”),
Education = education level of owner,
Assets = total business assets,
Confidence = Factor 1,
Experience = Factor 2, and
Knowledge = Factor 3.

Results

Sample Characteristics

The initial summary of the results, using univariate statistics, helped clarify the characteristics of the respondents and the responding companies. Category percentages (see Table 1) were calculated for the educational level of the owner, gender, type of business, total assets, and revenue. The results in Table 1 show that most owners had at least a college degree (64.7%) and were overwhelmingly men (95.6%). Most of the firms functioned in the manufacturing (47.8%) or services (21.1%) sectors and had total assets greater than \$100,000 (62.5%). A slight majority of firms (52.7%) had revenues greater than \$100,000, while almost 30% had revenues less than \$50,000.

{Table 1 about here}

Table 2 provides the mean values for how often owners prepared financial statements (1 = monthly, 2 = quarterly, 3 = annually, 4 = never), such that the higher the mean, the more often they prepared financial statements. The results indicate a predominance of cash budgets; balance sheets were prepared least often. In addition, forecasts were prepared more often than financial statements.

{Table 2 about here}

T-Test of Difference Between Means

The analysis included examining the relationship between access to external assistance and the frequency of financial statement preparation. Table 3 shows the t-tests of differences between the means of the frequency of financial statement preparation for firms that accessed external assistance versus those that did not. First, the majority of firms accessed external assistance. Second, the mean values indicated that income statements and balance sheets were prepared less frequently than cash budgets, sales forecasts, or expense forecasts. Third, firms that accessed external assistance prepared all their financial statements significantly more frequently than did firms that did not access external assistance. Owners of Turkish SMEs thus seemed to recognize the value of external assistance; those that accessed external assistance also prepared financial statements more often than those that did not.

{Table 3 about here}

Principal Component Analysis

The results of the principal components analysis in Table 4 identified three factors. The variables included in Factor 1 were reliability and confidence in financial statements, so this factor can be labeled “Confidence.” The age and experience variables constituted Factor 2, so it takes the

label “Experience.” Factor 3 featured the preparation and financial knowledge variables and was labeled “Knowledge.”

{Table 4 about here}

Correlations

The correlations among the independent variables factors are in Table 5, which also indicates low correlations among the independent variables (education, total assets, experience, confidence, knowledge). These low correlations suggest that multicollinearity should not be a problem.

{Table 5 about here}

Logit Regression Analysis

The regression results in Table 6 ($\chi^2 = 24.917$, significant at 1%) reveal the relationships of owners’ use of financial statements to make decisions with the (1) control variables (education and total assets) and (2) independent variables (experience, confidence, and knowledge). The coefficient for the *experience* variable (-0.114, significant at 5%) is directly associated with whether owners use financial statements to make decisions, in support of H1. Turkish SME owners who use financial statements to make decisions are more experienced than those who do not use financial statements. Conversely, owners who do not use financial statements to make decisions are less experienced than those who use these statements.

The coefficient for the *confidence* variable (0.084, significant at 5%) also is directly associated with the use of financial statements to make decisions, in support of H2. Owners who use financial statements to make decisions have more confidence in their financial statements; owners who do not use financial statements to make decisions have less confidence in their financial statements.

{Table 6 about here}

The *knowledge* variable coefficient (0.036, significant at 5%) is directly associated with whether financial statements inform decisions, in support of H3. Owners who use financial statements to make decisions have more knowledge about financial statements than those who do not use them, and the owners who do not use financial statements to make decisions have less knowledge about financial statements.

Table 6 also indicates that the total assets variable (0.756, significant at 10%) is weakly associated with owners' use of financial statements to make decisions. Therefore, firms with more total assets may have a greater tendency to use financial statements when making decisions, whereas firms with fewer assets may have a lesser tendency to use them. Finally, education is not significantly associated with the use of financial statements for decision making.

Discussion

Understanding what influences owners' decisions to use financial statements is important, because financial statements are critical sources of information for businesses. Ineffective decisions are associated with poor financial management, one of the primary causes of firm distress and failure (Headd, 2003); improved financial management instead can position a firm to remain viable and pursue profitable opportunities. Good financial decisions are predicated on reliable financial information and an ability to understand financial statements. Reliable financial statements also provide the necessary information to make decisions that help meet the firm's financial and operational goals. Even with reliable information though, the ability to understand and interpret financial statements constitutes a prerequisite for effective decision making (Carraher and Van Auken, 2013).

The study is especially relevant, because Turkey is a developing country, and limited research addresses SMEs in such settings. The findings provide insight into which variables

influence the use of financial statements by owners of Turkish SMEs. This study has focused on three factors, identified through principal components analysis, that reflect the variables that likely have pivotal effects on the use of financial statements (McMahon, 2001; Timmons and Spinelli, 2004).

The results indicate a direct association of all three factors with owners' uses of financial statements to make decisions. A high degree of consistency affirms the interpretation of these relationships. For all the relationships, owners who use financial statements to make decisions have more experience, are more confident in their financial statements, and have more knowledge about financial statements. Together, these relationships suggest that owners who are more seasoned understand the importance of financial statements and use the information in them to make decisions. Being able to access and interpret accurate financial information is especially important for small firms, for which poor financial management is a leading cause of failure (Carter and Van Auken, 2006). Experienced firm owners understand why financial statements are so important and use them to make decisions (Shields, 2010).

The association between whether owners use financial statements and their experience suggests that owners who are more experienced also understand the importance of using financial statements to make decisions. Experienced business owners recognize that their decisions, especially those that lead to large expenditures, have substantial financial consequences. Integrating financial statements into the decision-making process enables owners to evaluate the risk implications and financial consequences of their decisions (Berger and Udell, 1998). Experienced owners who understand the importance of financial statements can better analyze the impact of their decisions on risk, liquidity, and profitability (Shields, 2010).

The indirect association between owners' inability to understand financial statements and their use of financial statements to make decisions suggests that owners who have greater abilities in terms of interpreting financial statements also are more likely to use those financial statements. Conversely, those with less knowledge about financial statements use them to make decisions less often. Owners' knowledge about financial statements is likely associated with their understanding of the value of the information contained in the statements, especially with respect to risk, liquidity, and profitability. These issues should be central to decision-making analyses and processes. Owners without the knowledge required to understand the value of financial statements may not be able to interpret them or integrate them into their decision process (Carragher and Van Auken, 2013).

The results also show an indirect association between owners' confidence in financial statements and whether they use financial statements to make decisions. This finding suggests that owners who have greater confidence in their financial statements are more likely to use those statements to make decisions. Conversely, those with less confidence use their financial statements to make decisions less often. Confidence in financial statements reflects an understanding of the importance of the information, as well as familiarity with that information. The use and interpretation of financial statements can depend on owners' perceptions of their firms' potential. For example, entrepreneurs tend to be generally optimistic about their firms' financial potential, which can lead to inaccurate assessments of the probability of failure, ineffective decisions, and financial distress (Landier and Thesmar, 2009; Smith, 2011). Instead, they should rely more on financial statements in their decision making, because they understand the importance of the information and believe it is valuable. This sequence matches behavioral

finance theory, in which decision makers form beliefs that influence their practice (Barberis and Thaler, 2002; Ritter, 2003).

Efforts to improve the quality of Turkish SMEs' financial information and reporting could be leveraged to increase the use of financial statements for decision making. Training programs that help accountants and decision makers understand the value of financial statement information will be pivotal to the continued internationalization of the Turkish economy, especially as it gains greater access to capital markets. Barriers to capital acquisition and competitiveness also might be reduced by the more effective use of financial statements (Ibicioğlu, Kocabıyık, and Dalgıç, 2010).

Conclusions

This analysis of the factors associated with whether SME owners use financial statements relies on a sample of 91 SMEs located in Konya, Turkey. Few previous studies have examined the role of financial statements in decision making by SMEs, especially in countries outside the United States. The current article contributes to this literature stream by considering the critical role of financial statements for stakeholders and the financial impact of SME owners' decisions on firm sustainability over time.

The analysis provides three main findings: Owners of Turkish SMEs who use financial statements to make decisions (1) are more experienced than those who do not use financial statements to make decisions, (2) have more confidence in their financial statements than those who do not use financial statements to make decisions, and (3) have greater knowledge about financial statements than owners who do not use financial decisions to make decisions. These findings support all the hypotheses.

The results also should prove useful for owners of SMEs and service providers that work with these SMEs. Financial statements provide important information that should be used, by external evaluators and internally, to guide decisions. Both owners and service providers thus can use the information obtained from this study to understand which factors affect the use of financial statements, which in turn should improve the process by which financial statements get incorporated into decision making.

The several limitations of this study suggest avenues for further research. The investigation could be expanded to gain a perspective on how SMEs in different countries use financial statements, as well as explore differences by region, ethnicity, type of business, or rural versus urban areas. This study did not address the specific relationship between financial statement use and impacts on the firm, in the form of profitability or long-term viability. Finally, the study data were collected at a single point in time. A longitudinal study could provide further evidence about how financial statements get used at different stages of a firm's development and across the business cycle.

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Table 1
Characteristics of Responding Firms
(n = 91)

| <i>Educational Level</i> | Percentage |
|--------------------------|------------|
| High School | 32.9 |
| Bachelors' Degree | 63.5 |
| Graduate Degree | 1.2 |
| <i>Gender</i> | |
| Female | 4.4 |
| Male | 95.6 |
| <i>Legal Structure</i> | |
| Sole Proprietorship | 22.2 |
| Partnership | 56.7 |
| Corporation | 21.1 |
| <i>Type of Business</i> | |
| Retail | 8.9 |
| Services | 21.1 |
| Agricultural | 6.7 |
| Manufacturing | 47.8 |
| Other | 15.6 |
| <i>Total Assets</i> | |
| <\$50,000 | 15.1 |
| \$50,001–\$100,000 | 16.3 |
| >\$100,000 | 62.5 |
| <i>Revenue</i> | |
| <\$50,000 | 29.6 |
| \$50,000–\$100,000 | 17.7 |
| >\$100,000 | 52.7 |

Table 2
Mean Frequency of Financial Statement Preparation
(n = 91)

| Financial Statement | Mean | Standard Deviation |
|----------------------------|-------------|---------------------------|
| Income Statement | 2.08 | 0.88 |
| Balance Sheet | 2.39 | 0.80 |
| Cash Budget | 1.41 | 0.75 |
| Sales Forecast | 1.98 | 1.02 |
| Expense Forecast | 1.75 | 1.01 |

Table 3
Frequency of Preparation of Financial Statements Relative to Use of External Assistance:
T-Tests of Mean Responses

| Financial Statement | Means | Assistance | n | Means | t-Statistic |
|----------------------------|--------------|------------------------|----------|--------------|--------------------|
| Income Statement | 2.08 | No External Assistance | 39 | 2.46 | 0.000* |
| | | External Assistance | 44 | 1.75 | |
| Balance Sheet | 2.39 | No External Assistance | 37 | 2.73 | 0.000* |
| | | External Assistance | 37 | 2.05 | |
| Cash Budget | 1.41 | No External Assistance | 36 | 1.61 | 0.033** |
| | | External Assistance | 38 | 1.23 | |
| Sales Forecast | 1.98 | No External Assistance | 43 | 2.21 | 0.047** |
| | | External Assistance | 45 | 1.78 | |
| Expense Forecast | 1.76 | No External Assistance | 41 | 2.02 | 0.017* |
| | | External Assistance | 42 | 1.50 | |

* Significant at 1%.

** Significant at 5%.

Table 4
Principal Components Analysis Rotated via Varimax Procedure
(n = 91)

| Variable | Factor 1 (Experience) | Factor 2 (Experience) | Factor 3 (Knowledge) |
|------------------------------------|----------------------------------|----------------------------------|---------------------------------|
| Age | 0.0554 | 0.929 | 0.056 |
| Experience | 0.053 | 0.924 | 0.043 |
| Preparation | -0.408 | 0.233 | 0.619 |
| Reliable | 0.746 | 0.309 | 0.220 |
| Confidence in Financial Statements | 0.808 | 0.002 | 0.197 |
| Number of New Businesses Started | 0.334 | -0.121 | -0.155 |
| Compete | 0.760 | 0.063 | 0.110 |
| Financial Knowledge | 0.138 | 0.029 | 0.860 |
| | | | |
| Factor | Eigenvalue | Difference | Proportion |
| 1 | 2.919 | .867 | .292 |
| 2 | 2.052 | .797 | .205 |
| 3 | 1.256 | .242 | .102 |

Table 5
Spearman Correlations Between Variables (n = 91)

| Variables | Education | Assets | F1 | F2 | F3 |
|------------------|------------------|---------------|-----------|-----------|-----------|
| Education | 1.0 | | | | |
| Assets | .3177 | 1.0 | | | |
| F1 | -.233 | .581 | 1.0 | | |
| F2 | -.042 | .100 | .023 | 1.0 | |
| F3 | | -.019 | -.207 | -.088 | 1.0 |

Table 6
Logit Regression Analysis
Dependent Variable = Financial Statements Used in
Decisions
(n = 91)

| Variables | Coefficient |
|--|-------------|
| Intercept | -4.163 |
| Education | 0.053 |
| Assets | 0.756* |
| Experience | 0.114** |
| Confidence | 0.084** |
| Knowledge | 0.036** |
| Likelihood ratio ($\chi^2 = 24.917$ ***) Score ($\chi^2 = 19.387$ ***) Wald ($\chi^2 = 11.777$ ***) *** Significant at 1%. ** Significant at 5%. * Significant at 10%. | |

Figure 1

Factors that Affect the Use of Financial Statements

