1. Introduction and overview

The essence of the fields of entrepreneurship and strategic management can be summarized in three words – 'successful opportunity exploitation'. Most of the theory and research in the fields has focused on the areas of 'opportunity' and 'exploitation', for example, on what constitutes an opportunity, on how one identifies opportunities, on who does the exploitation, on the strategies necessary for effective exploitation, and so on. Some, although much less, attention has been focused on the issues of 'what constitutes success' or 'how one should measure success'. However, there seems to be no consensus regarding the best, or even sufficient, measures of organizational performance. This is in no small part due to the many varied views of what are desirable outcomes of organizational effectiveness and because performance has often been characterized by the theory and purposes of the research being performed. One indication of this lack of attention is the fact that almost none of the research studies done in the fields of entrepreneurship and small business have used the same measures of 'success', a fact that makes it difficult, if not impossible to generalize findings across studies.

In 1995, Robinson compared various measures of new venture performance, and concluded that 'shareholder wealth' was the 'best' measure for assessing the success of entrepreneurial ventures, a conclusion increasingly shared by both strategic management and finance scholars. Unfortunately, for the field of entrepreneurship, and to a lesser extent the field of strategic management, much, if not most, of what is really interesting in the area of 'opportunity exploitation' occurs before a venture has gone public, that is, before there is any easy way to measure 'shareholder wealth'. Moreover, both Robinson's study and others done in the fields of strategic management and finance have shown that most traditional financial performance measures, such as return on assets (ROA), return on equity (ROE), return on investment (ROI) and return on sales (ROS), do not strongly correlate with shareholder wealth creation. The objective of this research is to fill this void.

In general, this research addresses the measurement of organizational performance to provide researchers and managers with a better understanding of the implications of selecting variables for use in empirical studies and management practice where organizational financial performance is the criterion of interest. More specifically, the purpose of this research is to develop a measure of overall organizational performance that is based on traditional financial performance statistics that correlate strongly with overall shareholder wealth creation, so that both entrepreneurs and entrepreneurship scholars (as well as strategic management and finance scholars) will have a 'metric' that they can use from the date of organization creation onward to indicate whether the organizations they are leading or studying are on the road to success. Further, a better understanding of the relative and incremental information content of financial performance metrics can assist managers in selecting non-financial metrics to fill information gaps about overall organizational performance.

Since no prior research has empirically established the domain of organizational financial performance, this research is by necessity exploratory in nature. A three-part approach is adopted to address this problem. First, a model of overall organizational performance is inferred from empirical data that include the primary constructs of an organization's financial performance and empirical measures of these constructs. Next, the validity and reliability of the constructs and measures are tested. Finally, the overall model is statistically evaluated.

This research makes several unique contributions to the understanding of financial performance measurement for both research and management practice. Specifically,

1. it demonstrates that the changes in financial performance metrics provide unique and significant information about shareholder returns;
2. it identifies specific financial performance measures that discriminate, and those that do not discriminate, between high- and low-performing companies with respect to shareholder returns;
3. it tests the relative information content of individual financial performance measures with respect to shareholder returns;
4. it identifies distinct dimensions of financial performance and measures of them;
5. it develops and tests a multidimensional model of financial performance; and
6. it develops annual and three-year composite measures of financial performance, with previously unequaled explanatory power for shareholder value creation, for use when market data are not available.

WHAT IS PERFORMANCE?

Performance is a contextual concept associated with the phenomenon being studied (Hofer, 1983). In the context of organizational financial performance, performance is a measure of the change of the financial state of an organization, or the financial outcomes that result from management decisions and the execution of those decisions by members of the organization. Since the perception of these outcomes is contextual, the measures used to represent performance are selected based upon the circumstances of the organization(s) being observed. The measures selected represent the outcomes achieved, either good or bad.

Most management research focuses on the determinants of performance. For instance, Kunkel (1991) proposed that new venture performance was a function of new venture strategy and industry structure (expressed as a formula as $P = f(VS, IS)$). Kunkel tested the relationship between two independent variables and the dependent construct of new venture performance. The focus of Kunkel's research was on the hypothesized relationship between certain independent variables and certain dependent variables, while the focus of this research is just on the 'P'.

The independent variables are proposed as determinants of the changes in the dependent variables. The changes in the dependent measures are considered to represent 'performance' caused by the variations in the independent measures. The critical point here is that performance as a concept involves measurement of the effects of organizational actions.

The Concept of Organizational Performance

In general, the concept of organizational performance is based upon the idea that an organization is the voluntary association of productive assets, including human, physical and capital resources, for the purpose of achieving a shared purpose (Alchian and Demsetz, 1972; Jensen and Meckling, 1976; Simon, 1976; Barney, 2002). Those providing the assets will only commit them to the organization so long as they are satisfied with the value they receive in exchange, relative to alternative uses of the assets. As a consequence, the essence of performance is the creation of value. So long as the value created by the use of the contributed assets is equal to or greater than the value expected by those contributing the assets, the assets will continue to be made available to the organization and the organization will continue to exist. Therefore, value creation, as defined by the resource provider, is the essential overall performance criterion for any organization. How that value is created is the essence of most empirical research in management. Conversely, how that value is measured is the essence of this research.

Issues Associated with the Assessment of Value Creation

There are several issues associated with the assessment of value creation for organizations. First, value creation is situational since different types of organizations have different concepts of what outcomes are valuable. Second, organizations perform on multiple dimensions, such as growth, profitability and legitimacy, often trading positive outcomes in one dimension for worse outcomes in another. Third, performance is in part perceptually based upon what the observer finds 'valuable'. Finally, timing plays a role in value creation as opportunities created in the present, which will be realized in the future, are valued in the present based upon individual assumptions about future actions and conditions. These assumptions about future outcomes vary based upon the perceptions of the observer.

Value creation is situational

If performance is to be measured in terms of value created, it is incumbent upon researchers to select samples of organizations that have homogeneous concepts of value. Value may be tangible or intangible, operational or financial. Public companies (those traded on a recognized stock exchange) seek creation of shareholder value (increases in market value plus dividends paid) as their ultimate objective (Blyth et al., 1986; Rappaport, 1986; Porter, 1987; Stewart, 1991; Scott, 1998; Copeland et al., 2000; de Waal, 2001). For private companies, value creation may be a combination of both financial and non-financial objectives. When significant owners are also the managers of an organization, value creation for shareholders is more likely to include non-financial outcomes (Jensen and Meckling, 1976). These types of costs in public companies might be characterized as agency costs, but when the owners are also the managers, they are actually a component of the return to shareholders.

Non-financial returns to owner–managers would include lifestyle benefits, including work location, work duration, social interactions (such as when an owner continues to operate an underperforming business just so he/she will have a place to go and feel useful everyday) and ego. Other non-financial returns can be classified as constituency benefits, such as providing income for friends and family, helping people with special needs, such as goodwill industries, and providing employment for a depressed community. This discussion should not imply that public companies do not have non-financial objectives. They certainly do have agency costs, but they are not a specific objective of the organization. Rather, they are a cost of doing business. Therefore, they should not be considered as a positive part of organizational performance.

After six years of examining the concept of organizational effectiveness, Cameron (1986) concluded that there is no conceptualization of organizational effectiveness that is comprehensive. Therefore, similar to Hofer (1983), Cameron concluded that performance is a problem-, rather than a theory-driven construct.

Organizations perform on multiple dimensions

Even with a homogeneous sample with respect to the concept of value (such as publicly owned companies, family-owned businesses, or not-for-profit organizations), performance is a multidimensional construct, which permits value to be created on differing dimensions (Steers, 1975; Dess and Robinson, 1984; Cameron, 1986; Murphy et al., 1996). It is also possible to conceive of multiple measures of the value created. This fact is supported by the number of different dependent measures that have been used to measure organizational performance in research studies (Brush and Vanderwerf, 1992; Murphy et al., 1996).

There are many dimensions to performance and positive performance in one dimension may simultaneously result in negative performance in another dimension. For instance, if resource accumulation and profitability are hypothesized as separate dimensions of performance in the same model, adding resources in the form of equity may result in a lower risk-adjusted return on investment. This means that the company has performed well on one dimension, resource accumulation, while it has earned lower performance on the second construct, profitability. A new venture may be effective if it is accumulating resources and building market share, even at the expense of profitability. Conversely, a mature organization may be effective with stable resources and market share, and increasing productivity and profitability. Examining each dimension separately, without consideration of the other dimension will lead to decidedly different conclusions than examining the counterbalancing effects of the two dimensions simultaneously. To equate these levels of performance, a measure that covaries with each dimension is needed.

Interpretation of performance depends upon the observer's perspective

Value is in the eye of the beholder. Each organizational stakeholder will have a different perspective of what is 'valuable' based upon their purpose for associating with the organization. Passive investors have different perspectives of value creation than do active investors. Creditors may perceive value to be created by the organization's ability to generate positive cash flow and preserve the worth of collateral. Conversely, equity investors may perceive value in expending company resources to create future opportunities, even if it diminishes cash flow and tangible company assets in the short term.

Each group of organizational stakeholders will have a different view of organizational performance, making it incumbent upon a researcher to select a perspective of performance that conforms to the phenomenon of interest. In other words, a researcher should select a perspective of performance that coincides with the purpose of the research. The key is matching the appropriate model of organizational performance with the existing circumstances.

Assumptions about future performance influence perceptions of present value

The most difficult problem in developing a generalizable measurement model of performance is finding an indicator, or set of indicators, that reflect a weighted measure of all of the different dimensions of performance in the form of value created. An ideal measure must take into account information on both historical performance as well as expectations of future performance. It can be argued that performance should measure actions taken to date and not include the value of future expectations, since they may not materialize. However, the expectations of future performance depend upon the actions taken to date to create strategic alternatives and opportunities. Therefore, the value of the opportunities created relates to past actions and, accordingly, this value should be included in a performance measure as the risk-adjusted present value of the opportunities.

The realization of the anticipated value of opportunities is dependent upon future implementation. If the anticipated value of the opportunity is realized, the resulting increase in shareholder value in the implementation period will be equal to the discount rate applied to the expected return of the opportunity in the period when the opportunity was captured. The value created from opportunities in future periods will vary from the discount rate based upon the realized returns. In summary, performance measures should capture not only realized value creation, but also the value of opportunities created during the measurement period.

WHY STUDY PERFORMANCE MEASUREMENT?

There is little dispute that one of the core purposes of both entrepreneurship and strategic management theory and research is the improvement of organizational performance (Schendel and Hofer, 1979; Cameron and Whetten, 1983; Venkatraman and Ramanujam, 1986; Eisenhardt and Zbaracki, 1992). However, there seems to be no consensus regarding the best, or even sufficient, measures of organizational performance. This is in no small part due to the many varied views of what are desirable outcomes of organizational actions, and because performance has often been characterized by the theory and purposes of the research being performed. Researchers further confound the problem by confusing determinants of performance with measures of performance (Cameron, 1986).

It has long been reported that different measures of organizational effectiveness and performance have been used in management and entrepreneurship studies with little or no thoughtful discussion of why the measures used in the studies were chosen (Steers, 1975; Capon et al., 1990; Kaplan and Norton, 1992; Murphy et al., 1996). Little attention has been paid to the limitations that these measures may impose on the interpretation or generalizability of the results of the research (see Kunkel and Hofer, 1991; Brush and Vanderwerf, 1992; Cooper, 1993; Murphy et al., 1996; Robinson, 1995 as examples), and most have concluded that organizational performance is multidimensional in character (Cameron, 1980; Chakravarthy, 1986; Venkatraman and Ramanujam, 1986, 1987; Kaplan and Norton, 1992; Murphy et al., 1996). However, no study has successfully proposed and empirically tested a generalizable multidimensional model of organizational performance. This is a particularly challenging issue since changing environmental conditions may dictate that different performance dimension priorities exist at different times. For instance, during economic recessions, liquidity may be more crucial than profitability, while during economic booms, profitability and growth may take precedence.

Measurement is the 'careful, deliberate, observations of the real world for the purpose of describing objects and events in terms of the attributes composing a variable' (Babbie, 1998: 116). For a variable to be clearly and equally understood by many different individuals, it must be accurate, precise, quasi-invariant across observers, provide discrimination from other variables, and be stable over time. As a result, it is problematic that overall organization performance has been measured in research studies by dozens of variables that are generally not strongly correlated over time.

The validity of research studies that use arbitrary dependent measures to represent organizational performance is questionable. Researchers need to know that the effects they are studying will reasonably be represented by the changes in the dependent variables. The use of different measures as proxies for 'performance' makes extension from one study to the next dubious. Peter clearly summed up the importance of construct measurement as follows:

> Valid measurement is the *sine qua non* of science. In a general sense, validity refers to the degree to which instruments truly measure the constructs which they are intended to measure. If the measures used in a discipline have not been demonstrated to have a high degree of validity, that discipline is not a science. (1979: 6)

The topic of this research is particularly important for several reasons. First, a multidimensional model of organizational performance has not been explicitly studied before. Murphy et al. (1996) examined the dependent measures used in entrepreneurship research and through exploratory factor analysis found nine distinct performance constructs among the more then 50 different dependent variables reported upon. Venkatraman and Ramanujam (1987) empirically demonstrated that growth and profitability were distinctly different measures of performance, but did not attempt to propose a specific model for overall performance measurement. Robinson (1998) empirically tested the relationship between four separate independent variables (stage of the life cycle, industry concentration, entry barriers and product differentiation) with eight different measures of performance in new venture research and found significantly different results between each independent variable and the eight dependent variables. This further demonstrated the existence of multiple dimensions of performance.

Second, a generalizable and more powerful measurement model of performance has significant implications for future research and for reexamining the findings of prior research where less-powerful dependent variable measurement models were used. Such a model may help resolve multiple inconsistent theories where differing dependent variables were used.

Finally, a multidimensional model of organizational performance can significantly improve organizational stakeholders' understanding of the effectiveness of management. It allows for the measurement of value creation and for reasonable comparison across companies that have chosen different routes to creating value.

Therefore, the objective of this research is to develop a model of organizational performance. The model demonstrates that organizational performance is a multidimensional construct. In addition, it shows that the simultaneous consideration of these multiple dimensions is more appropriate for drawing conclusions about the effectiveness of managerial actions than considering each performance dimension separately.

WHAT QUESTIONS WILL BE ANSWERED BY THIS RESEARCH?

It is not the intention to propose cause and effect relationships between organizational actions and outcomes, but rather to develop a measurement model that captures greater information about the effects of organizational actions. Therefore, the first issue to be addressed is what is meant by organizational performance. This question is theoretical in nature and will be addressed through examination of prior theory and research.

Research Question 1: What is the nature of organizational performance?

The outcome of the examination of the first research question leads to a second research question. As discussed above, performance is multidimensional. Accordingly, this research will seek to identify the primary dimensions of performance and demonstrate that they are distinct from one another. Murphy et al. (1996) found nine distinct performance constructs and Venkatraman and Ramanujam (1987) demonstrated that growth and profitability were distinct performance constructs. However, a comprehensive model of organizational performance has not been proposed and empirically tested.

Research Question 2: What are the primary constructs underlying organizational performance?

If it is clearly shown that performance is multidimensional, the next area of investigation should be to identify appropriate measures for each construct. To accomplish this task, the relative and incremental information content of each measure will be examined. Those measures that provide better or more information about the construct of interest than other measures will be identified.

Research Question 3: What are the best measures of the primary constructs underlying organizational performance?

Finally, the combination of dimensions of organizational performance and the indicators of these constructs constitute a model of organizational performance. This model will be tested to determine whether it can distinguish between high- and low-performing companies.

Research Question 4: Can the model of organizational performance developed in this research distinguish between high- and low-performing organizations?

In summary, the focus of this research is the development and testing of a measurement model that accurately describes organizational financial performance. The purpose is not to examine determinants of performance, but rather to examine the nature of performance itself as a multidimensional construct.

THE ORGANIZATION OF THIS BOOK

Chapter 2 examines the prior literature with respect to empirical management research on organization performance measurement. In addition, the chapter includes a summary of the measures of organizational performance that were used in entrepreneurship and strategic management empirical studies published in five primary scholarly journals, over a five-year period.

Chapter 3 examines how the concept of overall organizational performance and effectiveness was characterized and investigated in prior theory and research. The chapter includes an argument for a single-constituency, multidimensional model of performance for for-profit organizations, from the perspective of the common stockholder.

Chapter 4 discusses the nature of the different categories of organizational performance measures. Since there is no authoritative list of performance categories in the prior literature, the categories of performance measures discussed in this chapter are based upon general classifications of such measures often found in finance and accounting texts. Five primary categories are proposed and the nature of the performance measures for each category is discussed.

Chapter 5 examines the strengths and weaknesses of individual performance measures that have been most frequently used in research and practice. Each of them is defined and samples of the arguments for these measures, as put forth by authors who have utilized the variables in empirical studies, are discussed. In addition, the validity of the arguments in favor of using these variables is examined and discussed. These variables include traditional accounting-based measures of performance, likelihood of financial survival measures, market-based measures and economic value measures.

Chapter 6 addresses the measurement attributes and specifications appropriate for the variables that scholars, especially those in the fields of entrepreneurship and strategic management, use for dependent variables when undertaking a research study. In this context, the chapter first reviews the role of measurement in theory building and testing. Next, it reviews the nature of empirical constructs and classification systems, and the criteria for them to be effective. The chapter concludes by applying the general concepts of measurement to the specific task of measuring organizational performance.

Chapter 7 details the research design. It includes a discussion of the philosophy underlying the research design and the critical assumptions for the operationalization of the study. Using Cameron and Whetten's (1981) seven questions for bounding and evaluating organizational effectiveness, the research design, the population of interest, and data-gathering and measurement issues for this research are detailed. Next, an exploratory approach to inferring a model of organizational financial performance from empirical data is presented. Finally, a discussion of the data analysis techniques used to test the model concludes the chapter.

Chapter 8 presents the exploratory work performed to examine individual measures of organizational financial performance as a first step in developing a measurement model of this construct. First, the relative information content of ratios calculated using ending balances for the denominator versus those calculated using average balances for the denominator, with respect to return to shareholders, is examined to determine whether they are statistically significantly different. Next, the results of statistical comparisons between high- and low-performing companies are presented to identify measures that discriminate between the two groups. The third section of the chapter examines the relative information content of various individual measures of financial performance. Finally, the incremental and relative information content of static measures versus change scores is examined.

Chapter 9 presents the exploratory work performed to develop and test different potentially useful models of organizational financial performance for annual and three-year timeframes. These models are inferred from empirical data, and include primary constructs representing separate dimensions of organizational financial performance as well as the measures of those constructs. The chapter concludes with the development and testing of financial performance composite measures for annual and three-year timeframes that may be useful when market-based measures are unavailable.

Chapter 10 presents the summary and conclusions of this research. The limitations of the study and application of the findings to entrepreneurship and strategic management research are discussed. Finally, the implications of the findings for management practice are discussed.

CHAPTER SUMMARY

Chapter 1 described the rationale for this research and specific research objectives to be accomplished. The focus of this research is to develop and test a measurement model that represents organizational performance. Four research questions were posed as the foundation for this research:

RQ1: What is the nature of organizational performance?
RQ2: What are the primary constructs underlying organizational financial performance?

RQ3: What are the best measures of the primary constructs underlying organizational financial performance?

RQ4: Can the model of organizational financial performance developed in this research distinguish between high- and low-performing companies?

The approach to answering these questions is to first determine what measures are actually used in empirical studies in entrepreneurship and strategic management and critically examine these measures' strengths and weaknesses. Next, the strengths and weaknesses of performance measures used in management practice are examined. Using this critique as background, key characteristics and attributes of effective performance measures are discussed. This analysis is then compared to theories of organizational performance measurement extracted from academic literature. Finally, based upon this review of academic research and theory, and real-world practice, a model of organizational performance is proposed and tested.

It is not the purpose of this research to examine determinants of performance, but rather to examine the nature of performance itself as a construct. The chapter concluded with a summary of the organization of the research and the material included in each succeeding chapter.