

Measuring the benefits of entrepreneurship at different levels of analysis

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ABSTRACT

This paper presents a suggested framework for future research designs to examine the benefits of entrepreneurship, both non-financial and financial. Based on a review of the literature and using contextual exemplars throughout the paper with an Australia and New Zealand focus, we identify a range of benefits from entrepreneurship at the various levels of analysis (e.g. individual, organizational, national). From a non-financial perspective such benefits include independence, autonomy, competitive advantage, increased market share, employment and increased standards of living. From a financial perspective, entrepreneurship's benefits include enhanced remuneration or rent from revenue, profits, cash flow, return on investment and increases in GDP – specific financial measures to be expressed in clear financial terms. The suggested framework represents both an initial step towards the measurement of entrepreneurship's financial benefits and a valuable starting point for the development of a theory of the non-financial and financial benefits of entrepreneurship.

Keywords: entrepreneurship; non-financial and financial benefits; Australia; New Zealand

Entrepreneurship is a much celebrated phenomenon in many countries and economies, not least in the Australasian context where it is promoted as having wide-ranging benefits. From a non-financial perspective, entrepreneurship has been associated with competitive advantage and increased productivity (Hitt, Ireland, Camp & Sexton 2001). From a financial perspective, entrepreneurship has been linked to increased profits, wealth creation and economic growth

(Reynolds et al. 2004). While various studies have focussed on specific and distinct benefits of entrepreneurship, few have considered the range and scope of such benefits collectively, nor have many considered possible losses from entrepreneurship.

With respect to the scope of benefits associated with entrepreneurship, a number of issues arise. First, the distinction between non-financial and financial benefits is often blurred, due to financial

benefits being measured in non-financial terms and vice versa. By way of example, economic growth is often measured by the number of new businesses created and changing levels of unemployment. As such, non-financial indicators are used to capture an economic phenomenon. Second, with respect to measurement of financial benefits, several complexities arise with respect to the data sources and methods used. For instance, research in various areas of management (e.g. strategic planning, new business creation and small and medium enterprises [SMEs]) has progressively examined financial performance in clear financial terms such as profitability and return on investment. Research in the area of entrepreneurship, however, has predominantly used non-financial measures as proxies for financial performance. These proxies include new job creation (Glancey & McQuaid 2000) and the entrepreneur's perception regarding the importance of and satisfaction with profit (Covin & Slevin 1989). Given the wide-spread use of non-financial proxies for the financial benefits of entrepreneurship, we suggest that findings touting the financial benefits of entrepreneurship be interpreted with caution.

From an Australasian perspective, the association between entrepreneurship and financial gain is particularly interesting. Researchers and policy-makers in Australia and New Zealand have acknowledged the importance of entrepreneurial activity and openly promoted it (Hindle & O'Connor 2005; New Zealand Government 2002). International studies such as the Global Entrepreneurship Monitor [GEM] reports show variations between the extent of entrepreneurial activity in both countries (Reynolds et al. 2004); however the relationship between entrepreneurial activity and financial benefit remains unclear. Thus, several issues arise, including the association between entrepreneurship and financial benefit and the research which has been and could be undertaken to support this association.

Accordingly, this paper is structured to examine three central issues:

- the nature of entrepreneurship and the different levels at which its benefits can be analysed, including individual, organizational (corporate, intrapreneurial and inter-organizational) and national levels;
- the benefits, both non-financial and financial, relevant to each level of analysis; and
- the specific measures of non-financial and financial performance relevant to each level.

Drawing examples from the Australasian context, this paper considers the issues relevant to an examination of entrepreneurship's non-financial and financial benefits at various levels of analysis. Considering the diverse range of research questions relevant to the study of entrepreneurship, four boundary conditions pertinent to research on this topic are explicated during the course of the paper, which concludes with a framework for future research to evaluate the benefits of entrepreneurship.

NATURE OF ENTREPRENEURSHIP

The notion that entrepreneurship can be seen through an examination of new and small businesses has been a key foundation of entrepreneurship literature (Cameron & Massey 2002; Covin & Slevin 1989; Glancey & McQuaid 2000). However, with the development of research in the area of new and small business and in entrepreneurship, there has been an increasing acceptance that the two concepts are quite different. In particular, entrepreneurship is increasingly recognised as a process or activity applying broadly to all forms of business (Drucker 1985; Gartner 2001; Hart 2003; Low & MacMillan 1988; McMullen & Sheppard 2006; Venkataraman & Sarasvathy 2001). The view of entrepreneurship as an activity is consistent with established definitions of entrepreneurship such as that put forward by Shane and Venkataraman (2000), which refers to entrepreneurship as the discovery, evaluation and exploitation of opportunity to create future goods and services. Similarly, Stevenson and Jarillo (1990) refer to entrepreneurship as the pursuit of

opportunity regardless of the resources controlled. McMullen and Shepherd (2006) note entrepreneurship requires action and suggest that many different perspectives of entrepreneurship within the literature are essentially studies of action characterised as entrepreneurial, in various contexts. Thus, new and small businesses have subsequently been acknowledged as two of many contexts in which entrepreneurial activity takes place.

In the context of New Zealand, Reihana, Modlik and Sisley (2006) discuss the importance of SMEs to entrepreneurship in New Zealand, noting more than 96 per cent of New Zealand organizations employ fewer than 20 people, provide employment for 29 per cent of the population and account for more than 37 per cent of the country's economic output. 'The significance of the SME sector is a major factor in understanding the entrepreneurial environment in New Zealand' (Reihana et al. 2006: 2). Consistent, however, with the notion that entrepreneurship is neither unique nor specific to new and small businesses (Drucker 1985), a direct association between the two concepts seems misleading. Glancey and McQuaid (2000) acknowledge this view, noting entrepreneurial activity within businesses of all sizes is important to a country's economy. Further, they accept many new and small businesses do not undertake activity which is entrepreneurial in nature. Hence, a focus on SMEs at the national level does not provide a complete picture of the financial benefits from entrepreneurial activity (Glancey & McQuaid 2000; Storey 1994). It thus seems important for scholars and policy makers in Australia and New Zealand to bear in mind that SMEs are not synonymous with entrepreneurship. Further, within New Zealand, reports by Statistics New Zealand (2003) indicate higher incidences of innovative activity in large rather than in small businesses.

Additionally, entrepreneurship has been explored on multiple levels, including bold risk-taking individuals (Frederick 2004; Mintzberg 1973), new and small businesses (Cameron &

Massey 1999), large organizations (Hitt et al. 2001), government (Osborne & Gaebler 1992) and society (Emersen & Twersky 1999). Thus, examining entrepreneurship as an activity is what Gartner (2001: 30) refers to as the 'elephant of entrepreneurship'; studies of entrepreneurial activity in varied and diverse contexts. Sonfield and Lussier (1997: 73) support this view, noting the nexus between entrepreneurship and 'business activity of all sizes'. In the context of New Zealand, Cameron and Massey (2002: iv) acknowledge 'entrepreneurship is increasingly recognised as basic to all organizations'. Similarly, in the GEM Australia Report 2004, Hindle and O'Connor (2005) note business activity is a necessary but not sufficient condition for entrepreneurial activity, highlighting elements such as innovation and growth are necessary to characterise business activity as entrepreneurial. Thus, the first boundary condition identified for the study of entrepreneurship's benefits (Dubin 1978) is that *entrepreneurship should be examined with a focus on its activity dimensions such as innovation, risk and growth, within organizations of all sizes.*

ENTREPRENEURSHIP AT MULTIPLE LEVELS OF ANALYSIS

There is emerging consensus that entrepreneurial activity takes place and thus should be examined, at various levels (e.g. individual, organizational and national). Further, a multi-level approach provides the opportunity to explore the benefits of entrepreneurship at different levels of analysis, as is done below.

Individual entrepreneurs

Analysis at this level is directed towards individual entrepreneurs – individuals who undertake activity characterised by innovation, risk and growth. At the individual level, McClelland (1961) refers to an entrepreneur's need for achievement. Mintzberg (1973) refers to an entrepreneur's desire for control. Davidsson (2006) highlights the focus on non-financial objectives such as autonomy, independence and the opportunity to

experiment resulting in positive learning outcomes, as a key focus for many individual entrepreneurs. In the context of New Zealand, Frederick and Chittock (2006) note the emphasis on 'lifestyle entrepreneurs', who focus on attaining independence and freedom within the work environment, rather than on maximising wealth. Specifically, Frederick (2006) refers to New Zealand entrepreneurs' focus on the 'three Bs': boat, beamer (BMW) and bach (holiday house), as a reflection of their priority on lifestyle objectives. Other non-financial benefits pursued by individual entrepreneurs may include job security, accelerated promotion and career advancement. Such benefits may relate directly to the individual entrepreneur, as well as extend to family members also involved in the entrepreneurial venture.

While the pursuit of non-financial objectives is acknowledged, there remains a clear assumption that financial benefit is the motivation for many entrepreneurial activities within the literature, based on the theory of rational economic man (Davidsson 2006; Kirzner 1979; Schumpeter 1934). Thus, for many entrepreneurs at the individual level, financial objectives are extremely important. Notably though, individual entrepreneurs' focus on these objectives may vary widely and can be viewed from two perspectives – business and personal. From a business perspective, common financial objectives relate to sales (Davidsson 2006) as a reflection of commercial success and profitability (Corner 2001) as a reflection of commercial viability. Given the focus on growth and expansion within entrepreneurship (Murphy, Trailer, & Hill 1996), growth in terms of sales and profitability can also be identified as key financial objectives, reflecting continued success over time. Finally, on the basis that one of the first and most significant challenges of entrepreneurship is simply to survive and that one of the main causes of failure for entrepreneurs is a lack of cash flow (Lerner & Haber 2001), by implication, a fundamental objective of entrepreneurs is to manage cash flow as well as profit.

From a personal perspective, individual entrepreneurs may also pursue financial objectives. Reynolds et al. (2004) refer to necessity entrepreneurs as individuals who are forced into entrepreneurship due to financial constraints. Other individuals may choose an entrepreneurial path in search of benefits such as financial security and reward through receipt of salary, bonuses and enhanced remuneration packages. Further, financial benefits such as distributions both formal (e.g. drawings and dividends) and informal (e.g. lifestyle subsidisation through the business which may be genuine business transactions or otherwise), may also represent important financial objectives for individual entrepreneurs. Thus, at the individual level of analysis, various non-financial and financial objectives exist from both a business and personal perspective.

Organizational level entrepreneurship

At the organizational level, entrepreneurship is also commonly considered from two perspectives – the organization as a whole or 'corporate entrepreneurship' and individual business units within an organization or 'intrapreneurship'. For the purposes of this paper the terms 'organizational level entrepreneurship' and 'intrapreneurship' are used to distinguish these perspectives and as a basis on which to consider the differences and similarities between the two.

From an organizational perspective, entrepreneurship has been associated with competitive advantage (Ireland, Hitt, Camp, & Sexton 2001), increased market share (Haber & Reichel 2005), as well as increased levels of innovation and productivity (Longenecker, McKinney, & Moore 1988). Further, elements characteristic of entrepreneurship such as innovation and growth, have been presented as pathways to product and market leadership (Porter 1980). Similar to entrepreneurship at the individual level, however, there is a clear focus on financial benefits at the organizational level of analysis. References to wealth creation (Ireland et al. 2001) and improved financial performance (Lerner &

Haber 2001; Lu & Beamish 2006; Zahra 1995) reflect attention to financial benefit at the organizational level. Thus, while there are differences between non-financial objectives at the individual and organizational levels of analysis, financial objectives at each level indicate clear commonalities. In particular, financial objectives at the organizational level can be identified as commercial success (revenue), commercial viability (profitability) and ongoing success through growth in revenue and profits over time (Murphy et al. 1996). Similar to entrepreneurial ventures at the individual level, management of cash flow remains a fundamental task at the organizational level (Clarke, Maguire, & Davies 2006) and thus may be viewed as an implicit financial objective. This is particularly relevant given that new business ventures may not generate profits in their start-up years thus resulting in negative cash flows. The two measures should be considered collectively, to evaluate the overall benefits and sustainability of such benefits.

Perhaps a distinguishing feature between financial objectives of entrepreneurship at the organizational and individual levels, is that the individual entrepreneur may be involved in a single entrepreneurial venture, while an organization's entrepreneurial activity or undertaking may be one part of otherwise established business activities (Davidsson 2006). Thus, while the financial objectives identified remain relevant at the organizational level, they may be less crucial within an organization which has profits and cash flow from other activity to potentially buffer, offset or accommodate initial losses or negative cash flows from entrepreneurial ventures.

Intrapreneurship

As noted above, intrapreneurship, or entrepreneurial activity within a single business unit [SBU] of an organization (Pinchot 1985), has also been examined as a separate level of analysis within the entrepreneurship literature. Given the common context of corporate entrepreneurship and intrapreneurship (i.e. entrepreneurial

activity in an organizational environment), arguably similar objectives both financial and non-financial, may be viewed as relevant to each level. There are however, a number of differences or distinctions to be made in the context of intrapreneurship with respect to the resources available and the related outcomes. By way of example, with respect to intrapreneurship, levels of innovation and productivity are traced specifically to the relevant SBU, rather than viewed as a reflection on the organization as a whole. Thus, while the nature of non-financial objectives such as increased levels of innovation remains the same, the specific targets for such objectives may be determined by reference to previous activity within an individual SBU, other SBUs within the organization, as well as external competitors (both SBUs and organizations).

Similarly, with respect to the financial objectives of intrapreneurship, revenues, profitability, growth in revenues and profitability over time and management of cash flow remain highly relevant. However, individual targets with respect to these objectives may be determined not only by reference to prior activity and performance within the SBU, but also that of internal competitors (other SBUs within the organization) and external competitors. Thus, an organization's policies or practices for allocating funding to individual SBUs and using funds from more stable and profitable units to finance entrepreneurial activity in units which may not initially be financially independent or competitive, will determine the extent to which profits and cash flow from existing SBUs are used as a buffer for new entrepreneurial ventures in other SBUs.

Inter-organizational entrepreneurship

Entrepreneurial activity undertaken jointly by organizations through networks and alliances has gained increasing attention in recent years (Hitt et al. 2001; Honig & Lampel 2000; Lechner & Dowling 2003) and is a further level of analysis from which entrepreneurship may be considered.

Dyer and Singh (1998) emphasise the importance of looking beyond the boundaries of an organization and highlight the potential benefits of organizations working together from a strategic perspective - a valuable source of new ideas and information; a starting point for innovation and growth. Similarly, Lechner and Dowling (2003) promote the importance of inter-organizational relations as a pathway for entrepreneurial activity and growth. Benefits identified from a non-financial perspective include competitive advantage, shared knowledge, stronger social networks, leveraging from and experimenting with complementary resources. Benefits from a financial perspective include lower transaction costs and increased returns in the form of relational rents (Dyer & Singh 1998), or entrepreneurial relational rents.

National (or macro) level entrepreneurship

Davidsson (2006) reinforces the notion of entrepreneurship as a micro level activity, but notes its implications extend to macro level environments. Thus, on a broader level of aggregation, entrepreneurship has been considered on a number of macro levels such as industries, geographic regions, societies and countries (Davidsson & Wiklund 2001). At each of these levels, the non-financial objectives of entrepreneurial activity vary widely, ranging from the creation of new products and markets (Schumpeter 1934), to a more efficient allocation of resources (Casson 1990; Kirzner 1979), increased standards of living and the creation of value through jobs, civic leadership and hard work (Ward & Aronoff 1993). With respect to the financial objectives, however, financial gain through economic growth (Reynolds et al. 2004) would seem to remain a central goal in each of these contexts.

In the context of Australia, Hindle and O'Connor (2005: 3) refer to entrepreneurship as

'the most important dynamic driver of the economy', reinforcing the association between entrepreneurship and financial or economic benefit. Initiatives taken by the New Zealand Government in recent years to promote innovation and entrepreneurial activity (e.g. the New Zealand Government's Growing an Innovative New Zealand (2002) programme) in order to foster economic development, further support the notion of financial and economic benefit arising from such activity. Direct benefits include economic growth such as increases in GDP¹. Subsequent financial benefits which may be viewed as secondary or indirect include increases in taxation revenue relating to profits from entrepreneurial activity and savings in welfare payments attributable to increases in employment from entrepreneurial ventures. Thus, the benefits of entrepreneurship, both non-financial and financial, vary widely, encompassing a range of objectives at various levels of analysis.

Table 1 summarises the various levels of analysis and the potential measures (both gains and losses) relevant to each level, described above. In particular, the last column of Table 1 indicates the diverse range of research questions relevant to the study of entrepreneurship, highlighting the examination of different objectives is associated with distinctly different research questions. Accordingly, an assessment of the benefits of entrepreneurship should consider the relevant objectives and benefits, both non-financial and financial, intended or otherwise and the level at which such activity is conducted.

Cross level comparison

While the benefits of entrepreneurship can be considered and analysed on a number of different levels, consideration can also be given to the benefits of entrepreneurship across multiple levels of analysis (Chen, Mathieu, & Bliese 2004). This approach reinforces the notion of entrepre-

¹ A measure which is useful, but not infallible (e.g. the Exxon Valdez oil tanker spill in Prince William Sound Alaska actually enhanced GDP due to spending associated with the clean-up).

TABLE 1: ASSESSING THE BENEFITS OF ENTREPRENEURSHIP AS AN ACTIVITY

Level of analysis	Possible activity measures (gains)	Possible activity measures (losses)	Research questions relevant to entrepreneurship under the activity-based view
Individual	<ul style="list-style-type: none"> • number of opportunities identified • number of entrepreneurial ventures founded • number of opportunities exploited 	<ul style="list-style-type: none"> • number of ventures that failed financially • financial losses from unsuccessful ventures • opportunity costs of pursuing entrepreneurial activity (e.g. stress, quality of life) 	<ul style="list-style-type: none"> • How are opportunities identified? • What elements assist in developing and exploiting opportunities?
Organizational	<ul style="list-style-type: none"> • number of new competencies created • core product yield (number of new products/ services emanating from core product) 	<ul style="list-style-type: none"> • financial losses from unsuccessful ventures 	<ul style="list-style-type: none"> • What elements assist organizations which conduct multiple entrepreneurial ventures? • How satisfied are organizations with the entrepreneurial returns realised? What influences the levels of satisfaction within organizations?
Intrapreneurial	<ul style="list-style-type: none"> • number of new products or services created • revenue stream generated from entrepreneurial products or services • return on investment from entrepreneurial projects 	<ul style="list-style-type: none"> • number of products/ services resulting in financial loss • financial losses from unsuccessful ventures 	<ul style="list-style-type: none"> • What cultural and environmental forces assist in fostering entrepreneurial ventures? • What are the financial returns from entrepreneurial ventures?
Inter-organizational	<ul style="list-style-type: none"> • number of successful entrepreneurial relations • value of entrepreneurial relational gains 	<ul style="list-style-type: none"> • loss of reputation from unsuccessful ventures 	<ul style="list-style-type: none"> • What factors support positive cases of inter-organizational ventures? • How important are financial returns from inter-organizational entrepreneurial ventures? What are the primary objectives and benefits realised from such ventures?
Macro (e.g. societal, national)	<ul style="list-style-type: none"> • number of new jobs created through entrepreneurial products/ services 	<ul style="list-style-type: none"> • number of workers displaced by entrepreneurial product/service 	<ul style="list-style-type: none"> • Which countries have higher levels of entrepreneurship? • What are the economic returns from entrepreneurial activity?

neurship as a micro level activity with macro level implications and provides a broader or more complete view of an activity's implications. For example, an entrepreneurial venture within an organisation may result in increased profits at the organisational level, but result in job losses if

processes are automated or staff are made redundant due to the entrepreneurial venture. Similarly, individuals or businesses may benefit from profits relating to entrepreneurial ventures which have a negative impact at the macro level due to adverse environmental or social implications.

Thus, a second boundary condition for the evaluation of entrepreneurship's benefits is that *such benefits should be considered at different levels and across multiple levels of analysis*, to the extent that the impact of such activity extends beyond a single level.

A further issue of concern is the association between entrepreneurial activity and financial and economic benefits. While entrepreneurship research emphasises the importance of this association, it has predominantly been explored by using non-financial proxies to operationalize financial constructs. This issue is considered below, by examining research previously undertaken on the financial outcomes of entrepreneurship at various levels of analysis. Consideration of prior research, together with alternative perspectives on measuring financial performance, are then used as a basis to develop a proposed framework for future research designs to examine, more precisely, the non-financial and financial benefits of entrepreneurship.

OPERATIONALIZING BENEFITS

For the purposes of measuring the financial outcomes or benefits of business activity in general and entrepreneurship in particular, the use of accounting data has been both supported (Chakravarthy 1986; Murphy et al. 1996; Phillips 1998; Speed & Smith 1990) and criticised (Eccles 1991; Kaplan 1990; Smith 1992). Charkravarthy (1986) argues financial performance measures are necessary but not sufficient. Letza (1996) contends such measures report on stewardship of money and resources rather than on strategic (or entrepreneurial) direction and are therefore insufficient. Dess and Robinson's (1984) study found no significant differences in using objective accounting measures and subjective measures of performance. With respect to SMEs it has been noted that objective or financial data may be unreliable, difficult to obtain (Covin & Slevin 1989) and interpret (Cooper 1979). Further criticisms relate to accounting measures as essentially short-term and hence the

need to add non-financial measures also (e.g. Kaplan & Norton's (1992) balanced scorecard; Kenny's (2003) focused scorecard).

Organizational level

Measures

A key research issue within entrepreneurship is the explanation of variation in financial performance across organizations (Kuratko, Ireland, & Hornsby 2001) and appropriate financial performance measures are necessary to address this issue. Essentially, financial measures are those expressed as a dollar value (e.g. sales), or calculated by reference to a dollar value such as return on sales (Hamilton & Black 2000). Conversely, non-financial measures are those not directly referenced to nor expressed as a dollar amount (e.g. frequency or level of innovation). With respect to the financial benefits at the organizational level, the association between entrepreneurial strategy-making processes and wealth creation for example (Dess, Lumpkin & Covin 1997; Ireland et al. 2001; Smart & Conant 1994), has involved measurement of financial performance (e.g. sales growth, profitability) wherein executives rank the relative importance of and relative satisfaction with their organization's performance. In this way, relative, non-financial measures of executives' perceptions have often been used as proxies for financial performance measures. Arguably, however, the lack of more objective or standardised financial measures to replace such perceptual measures represents an important area for development within entrepreneurship research.

Interestingly, an examination of research expounding the financial benefits of entrepreneurship reveals a distinct lack of financial measures. Of the 51 studies on entrepreneurship examined by Murphy et al. (1996), 75 per cent relied on primary (non-financial) data sources, 29 per cent used secondary data sources and only six per cent incorporated both. The high reliance on primary, non-financial source data in the field of entrepreneurship is consistent with findings con-

firming the scarce use of relevant secondary sources (Chandler & Jansen 1992; Sapienza, Smith & Gannon 1988). Lumpkin and Dess (1996) add to the debate, stating that performance constructs which are not multi-dimensional may result in theory building which is misleading. Lubatkin and Shrieves (1986) rationalise this issue by noting different disciplines often study a single activity from fundamentally different perspectives and acknowledge that management studies have taken more of a conceptual rather than empirical approach in evaluating performance. As acknowledged in numerous studies in accounting and finance, however, the importance of accounting measures as systematic, relatively more objective and informative performance measures has long been established and has not lost relevance (Malina & Selto 2004; Mitton 2006; Paquette 2005; Widener 2006). Thus, the value of accounting data suggests a need for future entrepreneurship research to address this gap.

In the context of research on new and small businesses, studies have begun to examine financial performance using multiple financial measures such as sales growth and profitability (Amason, Shrader, & Tompson 2006), returns on assets, equity and invested capital (Ebben & Johnson 2005), revenue and profitability (Lerner & Haber 2001), EVA and market value added (Chen & Lin 2006). Within entrepreneurship research, however, very little focus has been given to an examination of financial performance in systematic, derivable or replicable financial terms. Studies by Zahra (1991) and Morris and Sexton (1996) are among the few studies to broach this area of research within entrepreneurship, but non-financial indicators, used as proxies for financial measures, remain the predominant measures of entrepreneurial benefits.

The challenge of establishing the financial benefits of entrepreneurship in financial or objective terms gives rise to several issues. As noted by Murphy et al. (1996), all data sources, both financial and non-financial, have some degree of

subjectivity. Thus, a distinction between objective and subjective or 'soft' data (Ittner & Larcker 1998) is problematic. While various studies have made a distinction between the two (Brush & Vanderwerf 1992; Venkatraman & Ramanujam 1986), Murphy et al. (1996) suggest it is better to distinguish between primary (interview and questionnaire) and secondary (archival) data. Hence, financial measures based on independently audited financial statements may be viewed as valuable secondary data with, in principle, limited subjectivity, implicit validity and externally certified reliability.

Data Sources

In the context of research on SMEs, Naman and Slevin (1993) adopt a perceptual approach to measuring financial performance. They use executives' assessments of importance and satisfaction with financial results. They do attempt to verify these perceptual measures by also gathering financial data such as revenues, but the reliability of this financial data can be questioned since it is self-reported by the executives. With respect to research on business owners, Anna, Chandler, Jansen and Mero (1999) acknowledged the importance of financial data by requesting self-report data on sales over three years, but found that most participants did not respond. These authors also reported requesting sales data in the form of broad categories as a 'back-up'. Thus, while the importance of financial measures is recognised, the associated difficulties in accessing such data are also noted. In view of these difficulties, numerous studies on SMEs, new businesses and entrepreneurship have relied on self-report financial measures using ordinal scales (Hartenian & Godmunson 2000; Lerner & Haber 2001; Lu & Beamish 2006), referring to prior studies which support this approach as an acceptable substitute for financial measures (Dess & Robinson 1984; Geringer & Herbert 1999).

Regarding the organizational level or corporate entrepreneurship (Zahra 1991; Zahra 1995; Zahra & Garvis 2000) and new business (Zahra

& Bogner 1999), developments have been made towards improving measures of financial performance. Zahra (1995) uses self-report data for financial measures such as sales to assets ratio and return on investment [ROI] and then verifies these measures for a subset of organizations using secondary financial data. Similarly, studies by Zahra and Bogner (1999) and Zahra and Garvis (2000) use self-report data for financial measures such as return on assets [ROA], return on equity [ROE] and ROI, which are also verified for a subset of organizations based on secondary financial data. As noted by Zahra and Bogner (1999), however, the verification of financial data for only a subset of organizations warrants cautious interpretation of the results.

Research in the context of corporate entrepreneurship (Burt 1978; Vozikis, Bruton, Prasad & Merikas 1999; Zahra 1991), strategic planning (Robinson & Pearce 1983) and SMEs (Randoy & Goel 2003), has begun to address the lack of clear financial measures. Hence, an examination of financial performance in terms of earnings per share [EPS], ROI, ROA and ROE has been undertaken in a limited number of studies, using secondary audited financial data. Randoy and Goel (2003) go further to incorporate slightly more complex measures such as a organization's *Q* value (an alternative to Tobin's *Q*), to reflect the value of the organization. Specifically, they calculate *Q* as the ratio of the market value of the organisation (measured as the sum of the market value of equity and the book value of total liabilities) to the book (accounting) value of total assets. Vozikis et al. (1999) suggest the use of additional value created. Stern, Stewart and Chew (1995) promote the use of economic value added [EVA], emphasising the notion of incremental increases in value.

Thus, while studies in other areas of management and to a lesser extent, entrepreneurship, have gradually moved towards the use of financial measures in evaluating financial performance, a number of difficulties have also been noted. Smart and Conant (1994) highlight obstacles in

using financial measures at the organizational level with SMEs in particular, including lack of publicly available data, limited access to financial data within small organizations and associated sensitivities of small business owners in releasing such data. These difficulties partly explain the large number of studies which have relied on self-report data, an approach viewed as subjective (Murphy et al. 1996) and crude (Davidsson 2006). With respect to the use of secondary financial data, however, risks have also been identified in analysing data among different organizations which may not be directly comparable due to the use of distinctly different accounting methods (Smith 1992). While research which uses self-report data verified with financial data may be presented as having enhanced validity (Zahra 1995), arguably it is also subject to the limitations inherent to each data source, noted above. Last, in the context of studies referencing financial performance to clear financial measures, there is a trade-off between the use of more advanced financial measures such as *Q*, EVA (Stern et al. 1995) and additional value created (Vozikis et al. 1999) and the understandability and familiarity of such measures for researchers and practitioners in non accounting and finance disciplines.

National level

Measures

With respect to the financial benefits of entrepreneurship at a national or societal level, entrepreneurship research has focussed on employment statistics and new job creation within different industry segments, thereby measuring financial benefits with non-financial proxies. Timmons (1999) examines the importance of entrepreneurship in the context of small and large organizations by reference to employment rates, noting Fortune 500 companies accounted for 20 per cent of employment within the United States in 1980. By the late 1990s, this figure had decreased to seven per cent of employment. During this time new business represented 77 per cent of new

jobs created, while Fortune 500 companies lost five million jobs. Thus the economic benefits of entrepreneurship are presented by drawing a direct association between entrepreneurship and new job creation. Glancey and McQuaid (2000) present a similar analysis of organizations in the United States, European Union and the United Kingdom, reinforcing the association between entrepreneurial activity, new businesses and new job creation.

Also at the national level, the GEM study (Reynolds et al. 2004) is increasingly recognised as a key reference in measuring entrepreneurial activity in part perhaps, due to the extensive scope of the research which involves an annual report of entrepreneurial activity across approximately 40 countries. While the GEM Executive Report for 2003 (Reynolds et al. 2004) refers to entrepreneurship as one of the most dynamic forces shaping the economic landscape, it also acknowledges the lack of understanding on entrepreneurship. Specifically the GEM survey intends to measure the difference in entrepreneurial activity between countries and uncover factors and policies which both influence and contribute to the level of such activity. However, criticisms regarding the design of the GEM study and associated research methods (Hindle 2006; McLauchlan 2004) suggest it has not yet evolved to address the intended purpose. The GEM Executive Report for 2003 (Reynolds et al. 2004) for example, uses data on individuals who are involved in business start-ups (including those who intend to start a business) and owner-managers of young businesses as a measure of entrepreneurial activity. However, the underlying assumption that new business creation and new business owner-managers are necessarily entrepreneurial gives rise to concern. While subsequent GEM studies (Acs, Arenius, Hay & Minniti 2005; Minniti, Bygrave & Autio 2006) consider aspects more characteristic of entrepreneurial activity (e.g. innovation and growth potential), further concerns relate to the subjective views of randomly selected interviewees regarding self-

assessment of these elements within their personal business activities and work environment (Davidsson 2006). Thus, the inherent reliance upon interviewees' judgement and self-awareness gives rise to concerns regarding both reliability and generalisability.

In the context of Australia, Hindle and O'Connor (2005) suggest a number of reasons for Australia's low rate of entrepreneurial activity within GEM studies, including social and cultural norms and Australia's education system which underlies these norms. Specifically Hindle and O'Connor refer to Australia's mediocre ranking as a reflection of Australians' preference for a comfortable rather than challenging lifestyle and the prevalence of the 'tall poppy' syndrome (i.e. a reluctance to stand out from the crowd due to success or achievement, or admire others who have done so).

With respect to GEM report findings in general, however, Hindle (2006) suggests GEM reports provide a very comprehensive measure of new business creation, under the rather misleading guise of an entrepreneurial measure. Thus, a distinction is again made between entrepreneurship and new business creation. Such inconsistencies are relevant to numerous studies on SMEs and new business creation referred to as studies of entrepreneurship (Lu & Beamish 2006; Randoy & Goel 2003) and further highlight the absence of clear financial measures as a basis to support the association between entrepreneurship and wealth creation at the national level. Accordingly, the third boundary condition of a framework for future research is such that *an association between entrepreneurship and financial benefit requires an examination of entrepreneurial activity and the related outcomes by reference to clear financial measures, rather than relying on non-financial surrogates or proxies.*

Gains and losses

Another issue regarding the measurement of benefits from entrepreneurship is the extent to which losses are included in measures of benefits

such that net increases in benefits are reported as opposed to gross increases. An example of why this is an issue can be seen when considering business survival rates. While survival rates reported in the literature vary (Altman 1983; Cooper, Woo & Dunkelberg 1989), any rate of survival less than 100 per cent suggests statistics are misleading, unless determined by reference to both new business creation and closure. Similarly, an evaluation of entrepreneurship's financial and economic benefits in the context of employment statistics should also be referenced to both job creation and loss within entrepreneurial ventures.

The distortion of statistics tracing the benefits of entrepreneurship to new and small business is outlined by Davis, Haltiwanger and Schuh (1996), who refer to the size and distribution fallacy as an important issue in the evaluation of studies addressing the benefits of entrepreneurship. These sentiments are echoed by Storey (1994 2006) who concludes that many entrepreneurship studies provide little basis on which to support a clear association between entrepreneurship and financial or economic benefit. Rather, a relationship between entrepreneurship and economic growth traced solely to new organizations may actually reveal economic disruption through job loss and unemployment, rather than economic stability and growth - consistent with the notion of creative destruction (Schumpeter 1934).

Several researchers (Davidsson 2006; Gimeno, Folta, Cooper & Woo 1997) present a counter-argument on the issue of business closures, questioning the validity of survival rates as a measure of successful performance, given that not all business closures represent failure. Specifically Davidsson (2006) notes business closures may be attributable to a deliberate choice arising from more attractive employment opportunities, mergers, acquisitions and changes in the identity of individual organizations. Thus Davidsson (2006) argues that failure rates or business closures are over-reported within the literature. Gimeno et al.

(1997) refer to business closures in other situations which may not necessarily represent financial failure. These situations include entrepreneurs' disappointment with business ownership, an individual and personal threshold of 'acceptable performance' and an unwillingness to accept a level of success below that threshold. Such issues and implications are relevant at the individual, organization and national (or broader) level of analysis.

Research by Headd (2003) on a sample of business closures in the United States reveals most closures did not result in substantial job or financial loss (referred to as loss of capital less than US\$50,000). While the existence of such cases is acknowledged, incidents involving significant job and financial loss (for all stakeholders) cannot be overlooked. Further, even seemingly insignificant cases of financial loss may have broader and more significant implications. By way of example, in determining whether \$50,000 is a significant amount for an individual to lose, consideration should be given to each individual's overall financial position (Berry & Jarvis 2006). Similarly, in determining the significance of any impact on the economy, a number of variables would need to be considered including the frequency of closures, the extended financial implications for suppliers, other creditors both public (e.g. taxation authorities) and private, as well as other stakeholders (e.g. requirement for financial assistance such as government welfare after closure of the business). Hence, a balanced examination of this issue requires consideration of the actual losses, both minor and significant, in clear financial terms.

In the context of New Zealand, Reihana et al. (2006) refer to the significant contribution of organizations with five or fewer employees (accounting for 10 per cent of employment and 20 per cent of economic output). Referring to the same data, however, the New Zealand Ministry of Economic Development [MED] notes that while this sector of the economy has created the greatest number of jobs within New Zealand from 2000 to 2004, these jobs have also been the

greatest contributor to employment reduction (MED 2005) due to the low survival rate of organizations within this sector. With respect to Australia, Peter Reith (1999) Minister for Employment, Workplace Relations and Small Business, refers to small business as the engine room of the Australian economy. However, Parker (2000) highlights that while statistics indicate small organizations account for approximately 60 per cent of employment in Australia and are the greatest contributor to employment growth, wages in small Australian organizations are significantly lower than are those in large organizations (approximately 20 per cent less) and employment statistics include a high percentage of casual employees (40 per cent of employment in organizations with less than 10 employees). Thus, the issue of validity again surfaces within research linking entrepreneurship and financial or economic benefits.

Turning to individual cases of entrepreneurial activity, incidences of financial gain have been widely promoted (Cameron & Massey 2002; Gaynor 2006). Yet while cases of successful entrepreneurship have been recognised for their financial gains, equally notable are cases of entrepreneurial activity resulting in financial loss (Dess et al. 1997). Thus, the assumption that entrepreneurial activity creates financial benefit without corresponding losses is not valid and an evaluation of the financial and economic implications of entrepreneurship requires due consideration of both gains and losses arising from entrepreneurial activity. Accordingly, a fourth boundary condition is that *both financial gains and losses must be considered, in establishing a relationship between entrepreneurship and financial benefit within and among the individual, organizational and national levels of analysis*. Thus, we recommend consideration of both positive and negative outcomes from entrepreneurial activity at each level of analysis and across the various levels.

To conclude on operationalizing benefits, a number of issues have been identified with

respect to the selection of appropriate measures of benefits and sources of data, for studies examining the financial benefits of entrepreneurship. As noted by Davidsson (2006), the research data must be appropriately matched to the research question. We thus suggest that a study of executive's satisfaction with profits, for example, provides valuable insight into satisfaction levels rather than profits. Further, the choice of appropriate measures and data sources within entrepreneurship studies directly impacts on the validity of the related research findings and is particularly important given the early stages of entrepreneurship research.

PROPOSED FRAMEWORK FOR ASSESSING THE BENEFITS OF ENTREPRENEURSHIP

The question of how future research designs may begin to quantify the financial benefits of entrepreneurship at each level of analysis can be guided by the boundary conditions specified in this paper. It has been argued that entrepreneurship is best viewed as an activity relevant to all forms of business, the objectives of which are both financial and non-financial. The reader is referred to Table 1 again for a detailed summary of how entrepreneurship can be investigated as an activity across the multiple levels of analysis presented in the current article. While the financial outcomes of entrepreneurship may involve gains or losses, measurement of those outcomes in direct financial terms, as opposed to non-financial proxies, is necessary to substantiate the financial benefits of entrepreneurial activity. Such measurements should include examination of several financial indicators incorporating secondary (audited) accounting data, where possible. Such data potentially balances utility and understandability of findings for both researchers and practitioners. To further articulate our point regarding the financial and non-financial benefits of entrepreneurship and how these may be investigated within the proposed framework of boundary conditions, we present Table 2.

TABLE 2: NON-FINANCIAL AND FINANCIAL MEASURES AT DIFFERENT LEVELS OF ANALYSIS

		Individual	Intra-preneurial	Organizational	Inter-organizational	Macro (e.g. societal, national)
Non-financial measures	Gains/ (losses)	<ul style="list-style-type: none"> • satisfaction with objectives such as autonomy, need for achievement 	<ul style="list-style-type: none"> • number of successful ventures • number of positive learning experiences 	<ul style="list-style-type: none"> • growth in employee numbers • growth in resource base 	<ul style="list-style-type: none"> • number of successful relations • number of positive learning experiences 	<ul style="list-style-type: none"> • standards of living • employment rates
Financial measures	Gains/ (losses)	<ul style="list-style-type: none"> • revenues • profits • wealth creation • ROI • CFROI 	<ul style="list-style-type: none"> • revenues • profits • wealth creation • ROI • CFROI 	<ul style="list-style-type: none"> • revenues • profits • wealth creation • ROI • CFROI 	<ul style="list-style-type: none"> • revenues • profits • wealth creation • ROI • CFROI 	<ul style="list-style-type: none"> • GDP • increases in taxation revenue • welfare savings

FINANCIAL AND NON-FINANCIAL BENEFITS

The individual and organizational levels

From an individual and organizational perspective, an examination of revenues and profits arising from entrepreneurial activity, together with growth in revenues and growth in profits over a number of years (Davidsson 2006) provides a useful measure of commercial success and commercial viability, indicating financial performance and progress from a longitudinal perspective. Similarly, examination of cash flows from entrepreneurial activity provides an important and objective measure of the cash resources generated, reflecting financial viability of the activity (Clarke et al. 2006; Pizzini 2006). As noted previously, this measure is particularly relevant in the context of entrepreneurial organizations, given that inadequate cash flow is a common cause of failure (Cameron & Massey 1999).

While actual numbers for revenue, profit and cash flow, together with growth in each measure are valuable indicators of commercial success and viability, consideration of these numbers in terms of the funds invested in an entrepreneurial activity should also be considered to provide relative

measures of success which can be compared across entrepreneurial ventures both large and small, at each level of analysis (Capon, Farley & Hoenig 1990). Thus, measures such as ROI (profit divided by funds invested) and CFROI (cash returns divided by funds invested) provide valuable insight into success in relative terms through consideration of the financial returns of an activity, relative to the funds employed. Further, such measures provide useful comparatives between alternatives such as entrepreneurial and non-entrepreneurial activities. Thus, a research approach incorporating these measures represents a valuable starting point to evaluate the financial benefits of entrepreneurial activity at the individual and organizational levels.

The national level

With respect to the financial benefits of entrepreneurial activity at the national (or broader) level, measurement of the financial benefits within a country's economy, or within a specific market segment or sector (e.g. industry sector, regional market, or societal group) could be used as a basis to project the aggregate economic benefits in direct terms such as revenues and profits, growth in revenues and profits over time and return on investment in terms of profit (ROI) and cash flow

(CFROI). Further, with respect to the broader economic benefits of entrepreneurial activity, consideration could also be given to indirect or secondary measures such as increases in tax revenue due to entrepreneurial activity and profits and decreases in welfare costs resulting from increases in employment (Davidsson, Lindmark & Olofsson 1995). Table 2 summarises the non-financial and financial measures relevant to entrepreneurship at the different levels of analysis.

CONCLUSION

An examination of the literature on the potential benefits of entrepreneurship indicates such benefits are significant in both number and scope. However, few studies have focused on the benefits beyond a single level of analysis and considered the net benefits across multiple levels of analysis. Entrepreneurship research at the individual, organizational and the national level refers to the association between entrepreneurship and financial benefit, yet a review of such research indicates the need to progress beyond research methodologies and findings focused on non-financial measures.

The framework proposed in the current article represents an initial step towards a theory of entrepreneurship's non-financial and financial benefits. Four important boundary conditions were noted as a basis for the study of entrepreneurship. First, entrepreneurship should be studied with a focus on its activity dimensions such as innovation, risk and growth, within businesses of all sizes. Second, the benefits of entrepreneurship should be considered at different levels of analysis and across multiple levels where appropriate. Third, both gains and losses must be considered in establishing a relationship between entrepreneurship and financial benefits at the individual, organisational and macro levels of analysis. Last, an association between entrepreneurship and financial benefit requires an examination of entrepreneurial activity and the related outcomes by reference to clear financial measures rather than relying on non-financial surrogates or proxies.

Moreover, we offer the framework as a valuable starting point for the development of a financial theory of entrepreneurship – a topic on which much has been written, but little has been established. Consideration of relevant financial measures fundamental to accounting, provides a basis for the development of a framework (as presented in Table 2) to begin to quantify the financial benefits of entrepreneurship at each level of analysis. This framework offers the advantages of standardised measures which reflect commercial objectives and outcomes in clear financial terms, both absolute and relative, allowing for comparability across different levels of analysis – individuals, organizations, economies – both large and small.

While the benefits of entrepreneurial activity are widely accepted within the literature, there is considerable scope for research examining these benefits across multiple levels of analysis and verifying financial benefits in clear financial terms. Establishing a clear association between these concepts provides important insights for researchers, practitioners and policy-makers, seeking enhanced understandings, improved financial returns and more progressive economies. While such objectives are highly relevant to Australasian businesses and economies, they are clearly not unique to that region. Thus an examination of these issues in the context of Australia and New Zealand can provide lessons transferable elsewhere. Further, tracing entrepreneurial activities to non-financial and financial outcomes (both gains and losses) provides an important starting point to identify the underlying variables attributable to such outcomes and the foundations for a theory of the non-financial and financial benefits of entrepreneurship.

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Myths that we operate in certain and predictable worlds, and that mankind can control its environment, do not help us to build productive, satisfying and sustainable organizations.

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