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The Many Facets of Entrepreneurship in Practice and Research: Encouraging the Academic Dialogue

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Special Edition Editors:
Sean Patrick Sassmannshausen, Editor in Chief, with Alex Maritz, Howard Frederick, Colin Jones and Liora Katzenstein

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SPECIAL ISSUE EDITORS AND REVIEW BOARD

The Editorial Board is grateful for the support by our reviewers.

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Special Issue Editorial

THE MANY FACETS OF ENTREPRENEURSHIP IN PRACTICE AND RESEARCH: ENCOURAGING THE ACADEMIC DIALOGUE

From the Editors
Sean Patrick Sassmannshausen, Alex Maritz, Howard Frederick; Colin Jones, and Liora Katzenstein

BACKGROUND OF THIS SPECIAL ISSUE

This is the first volume (out of two) of the special issue of selected papers presented at the 8th Australian Graduate School of Entrepreneurship International Entrepreneurship Research Exchange in Melbourne 2011 (AGSE IERE 2011). We thank the AGSE for the opportunity to use the 8th AGSE IERE as a resource for this special issue. The academic dialogue on the nature of Entrepreneurship still continues, as well as the debate on the boundaries of the academic field. New venture creation, rapid growth of newly founded businesses, corporate entrepreneurship, family business, or franchising to name just a few, all have been referred to under the label "Entrepreneurship" by some authors, while others present different points of view (see e.g. Rocha & Birkinshaw 2007, Davidsson 2003 Davidsson 2005, chapter 1 and 2, Gartner 1985, Carland et al. 1984, Gartner 1988 & 2008, Gartner et al. 1989, Carland et al. 1988, Low & MacMillan 1988, Venkataraman 1997, Low 2001, Shane & Venkataraman 2000 and 2001).

Acknowledging the pluralistic nature of the field, the editors have invited research papers from various disciplinary backgrounds to these special issues, addressing new venture creation, growth, and life cycle, family business, small business research, venture capital and technopreneurship, entrepreneurial failure, entrepreneurship education and other

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areas of entrepreneurship. Together, both volumes will cover the broad field of entrepreneurship. Hindle (2004, p. 583) argued that entrepreneurship may be "insolubly holistic in nature", and our selection of papers aims to give – in sum – an impression of this holistic nature.

With regard to empirical contributions, the two volumes include full scale quantitative studies as well as explorative and descriptive approaches, qualitative papers, multiple or single case studies, and best practice reports. In other words: We believe in Paul Feyerabend's (1993) idea of methodological pluralism. That is: Different methods can be applicable, according to the aim of different studies; and new even may methods emerge. Nonetheless, any method that is used should be applicable, meaningful, generate insights, and has to be used with rigor.

Our major selection criteria for the special issue were originality and relevance of interesting topics. The special issue is not limited to research from Asian countries or on sustainable entrepreneurship. The Asia Journal of Entrepreneurship and Sustainability (launched in 2005) is listed with ProQuest and covered by Google Scholar. It is an open access online journal, hence offering broad opportunities to get cited. Gartner et al. (2006, p. 327) have stated that "Entrepreneurship scholarship is what entrepreneurship scholars pay attention to." This special issue gives mostly early stage career researchers room to gain the attention by the wider academic community. For the editors and reviewers it was a pleasure to witness the emergence of such new scientific talents. Nevertheless, all papers have undergone a double blind review process and many have been revised for resubmission while some have been rejected.

The editors are very pleased with the outcome of the review process. Our idea of conducting reviews was to help authors getting published, not to hinder them. Nevertheless, academic quality was our first concern. Hence the reviewers have conducted fair but rigorous reviews providing detailed and constructive feedback without compromising scholarship in the field of Entrepreneurship. We are grateful to the contribution of our review board.

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The conference had over 200 full paper submissions, and after the conference's double blind review process, 120 papers were accepted for presentation. Out of these 120 papers many have been invited for submission to this special issue (selected for their appropriateness by the special issue editorial board) and finally 12 papers have been accepted after the common review-and-resubmission-procedure (however, two out of the twelve accepted papers had such a high quality that after reviewing they were accepted right away without any resubmission process). These twelve papers are split over two volumes of this conference special issue.

The special issue editors are grateful and want to express their respect for the great work the conference committee has done in organizing the 8th AGSE International Entrepreneurship Research Exchange and in selecting papers of great interest for the conference. Our thanks go to (in alphabetical order) Dr Sanjay Bhowmick (Auckland University of Technology), Dr Alistair Campbell (University of South Australia), Professor Per Davidsson (Queensland University of Technology), Professor Evan Douglas (University of the Sunshine Coast), Professor Noel Lindsay (University of Adelaide), Professor Tim Mazzarol (University of Western Australia), Ms Carolyn Oates (Conference Secretariat, AGSE), Dr Allan O'Connor (University of Adelaide), Dr Martie-Louise Verreynne (University of Queensland), and Professor John Watson (University of Western Australia). Two members of the special issue editorial team, namely Professor Howard Frederick (Deakin University) and Professor Alex Maritz (AGSE Swinburne University of Technology) have also been members of the conference committee; the latter even chaired the committee and has facilitated the interface between the conference committee and the editorial board.

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AN INTRODUCTION TO THE CONTENT OF THE ARTICLES PUBLISHED IN THIS SPECIAL ISSUE AND SOME RELATIONS WITH DAVID STOREY'S THEORY ON OPTIMISM AND CHANCE

Four articles published in this special issue relate to a highly recognized and critically discussed article published by David Storey in the International Small Business Journal in late 2011. This is a coincidence since the papers included in this special issue had been presented at the International Entrepreneurship Research Exchange at the Australian Graduate School of Entrepreneurship prior to the publication of the aforesaid article by Storey. However, one could argue that this coincidence provides evidence on how much the International Entrepreneurship Research Exchange is at the frontier of entrepreneurship research.

The first article in this special issue (titled "Investigating the Firm Life-cycle Theory on Australian SMEs in the ICT Sector") is an empirical study revealing that not every company follows the ideal typical life-cycle model, as for instance regressions can occur. A cluster analysis shows that it is difficult to clearly cluster a sample of companies into ideal typical stages. Nevertheless, progress of companies from one stage to another can be observed. The article is authored by Áron Perényi, Christopher Selvarajah (both of Swinburne University of Technology, Hawthorn, Australia) and Siva Muthaly (Graduate School of Business and Law, RMIT University, Melbourne, Australia). Perényi, Selvarajah and Muthaly thus provide some empirical evidence for the very recent discussion on the current limitations of entrepreneurial growth theories, started by David Storey's (2011) popular contribution published by the International Small Business Journal.

However, each life cycle starts with the creation of a new venture. The second article in this special issue (titled "Entrepreneur Optimism and the New Venture Creation Process") therefore takes us straight to that point of departure. The authors Neil James and Amanda Gudmundsson (both from The Australian Centre for Entrepreneurship Research at Queensland University of Technology) are also doubting any linear understanding of new

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venture development and are adding further arguments in support of the previously mentioned article by David Storey (2011). James and Gudmundsson are suggesting a framework to generate deeper insights into entrepreneurial optimism. As one reviewer commented, "[t]he paper addresses a very important research gap in discussing components of psychological capital, in particular the construct of entrepreneurial optimism, and their potential effects on various stages of the entrepreneurial process." Consequently the article formulates groundbreaking research propositions at the interdisciplinary interface of psychology, behavioral research, and entrepreneurship research. By translating concepts into the language of business studies (like "psychological capital element of optimism"), the authors provide a rich research framework that is comfortable and understandable for those of us who have their home disciplines within management and business schools or schools of economics (see Landström 2005 on the home disciplines of researchers in entrepreneurship). James and Gudmundsson are thus providing directions for empirically testing David Storey's latest hypotheses on "Optimism and Chance" (2011).

Sometimes optimists are successful, or at least they perceive themselves as successful. In "Business Perceived Success and Growth Intentions" Louis Geneste and Paull Weber (both from Curtin Business School at Curtin University in Perth) empirically (n=340) examine the relationship between the small business owner's intent to grow their business and their self-perception of success. Their findings suggest a positive relationship between the optimistic growth intentions of small business owners and their self-perception of success. So is David Storey (2011) correct? Is optimism key to entrepreneurial success, besides chance? One reviewer commented: "[…] the authors have a valid and important point in focussing on self-perceived past or future expected success levels (instead of actual success) in the context of growth intent. This is since it will be mostly self-perceived issues which drive entrepreneurs / business owners' attitudes and plans towards their own venture, e.g. in terms of continuing / expanding it or ceasing their business (see, e.g. Wiklund et al., 2003 in terms of expected outcomes of growth efforts and the seminal work by Davidsson 1989 for the relevance of self-perceived influence factors in the context of growth intent). From this, the explored

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relationship between perceived success and growth intentions is pivotal. And the paper shows that there are differences in the level of perceived success between the growth and non-growth subsamples." Do we – the editors – need to say any more on the article's importance and topicality?

Storey's (2011) suggestions on optimism and chance (as key factors for entrepreneurial growth) are grounded on the argument that most theories related to factors of growth and success are one-way bets, meaning that many theories can explain growth, but cannot be turned upside down to explain decline. In "The Paradoxical Nature of Venture Failure" Noga Gulst and Alex Maritz (both from Swinburne University of Technology, Australia) take a different point of view: They ask: What can be learned from failure? instead of What can be learned from growth and success? A lot, as they show by a mix of qualitative and quantitative research methods. Some entrepreneurs perceive a rich learning experience positively, even if learning occurs from failure. Those entrepreneurs are optimists during (or even because of) experiencing new venture failure. Buy this, Gulst and Maritz possibly revealed a weak spot in Storey's argument: A lot of entrepreneurs remained optimistic during new venture decline and failure. So shouldn't Storey associate optimism not only with success but also with failure?

Gulst and Maritz have more to offer than just a fresh empirical perspective on Storey's theory. They compare entrepreneurs and intrapreneurs in how both groups perceive new venture and business failure, suggesting that they observe it differently. They provide some practical implications, for instance for entrepreneurship education suggesting that the experiences gained by practiced entrepreneurs and intrapreneurs from their failed ventures should be added to entrepreneurship courses in universities and colleges. They provide a framework that can help nascent entrepreneurs and intrapreneurs to "better understand the issues they may confront on their entrepreneurial journey".

Occasionally, new ventures require radical strategic changes (RSC) in order to achieve growth goals or even to survive. This is especially true for high-technology new ventures (HTNVs), which operate in an environment of great uncertainty – and require substantial

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capital investments. Eyal Benjamin, Liora Katzenstein (both from Swinburne University of Technology, Australia) and Eli Gimmon (from Tel-Hai College, Upper Galilee, Israel) explore the attitudes of venture capitalists towards such radical changes. By asking "Is the World of Venture Capital Investors Turning Flat?" the authors search for cultural differences among venture capitalists (VCs) from different countries. In particular, Israeli VCs are compared with non-Israeli VCs. Beside its explanatory and descriptive nature, the study is substantiated by Hofstede's (1991) theories and observations. The authors derive hypotheses from Hofstede (1991) and House et al. (2004), applying intercultural management theories to the context of VC-theory. While previous research suggested that cultural differences should be expected, findings presented here surprisingly indicate only limited cross-cultural differences. Based on the findings, Benjamin, Katzenstein and Gimmon conclude that VCs from different developed countries share fairly similar views of RSC in HTNVs. A possible explanation of this lack of difference might be the comparatively small global VC community and the globalization of the high-technology venture industry.

In entrepreneurship literature it is common to ask what could be done to support entrepreneurs. Christopher Baker and Michael Moran (both from Swinburne University of Technology, Australia) take a fresh perspective in their article on "Entrepreneurship and Philanthropy", asking what entrepreneurs could do to support others. They explore the international literature on giving by wealthy entrepreneurs. They search for patterns in giving and the extent to which entrepreneurialism impacts on the nature of that giving. Especially, the article compares entrepreneurs in the US and in Australia. The authors find that in official US-studies entrepreneurs are reported to be relatively generous, while in Australia there is a lack of such official data. But the authors report on several studies which found that in general the wealthy Australians are less generous than their US-counterparts. Cultural differences and an unfavourable Australian tax system are identified as root courses. The authors conclude that there is a need for specific research into entrepreneurialism and philanthropy, and that such research needs to be sensitive to the national peculiarities of political, cultural and regulatory contexts.

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More articles have been accepted for publication. Therefore there will be a second special issue comprising papers on entrepreneurship education and fostering entrepreneurship. The editors are grateful to the efforts of the authors. We invite our audience to enjoy their reading regarding the many facets of entrepreneurship.

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INVESTIGATING THE FIRM LIFE-CYCLE THEORY ON AUSTRALIAN SMES IN THE ICT SECTOR

Dr. Áron Perényi: Swinburne University of Technology, Hawthorn, Australia
Professor Christopher Selvarajah: Swinburne University of Technology, Hawthorn, Australia
Associate Professor Siva Muthaly: Graduate School of Business and Law, RMIT University, Melbourne, Australia

Contact: Áron Perényi, Swinburne University of Technology (AGSE), PO Box 218, 3122 Hawthorn, Australia, (T) +61 405 729 055, (F) +61 3 9214 8381, Email: aperenyi@swin.edu.au

ABSTRACT

Four points of major criticism can be identified regarding the application of firm life-cycle theory on SMEs: inconsistency of empirical validation; descriptive nature of the model; regression in the cycle is neglected; and linear, sequential life-cycle model. Data was collected on Australian SMEs in the ICT sector, using established quantitative methodology. Propositions were formulated based on critical literature, and were evaluated using statistical analysis. It was found, that the life-cycle classification was possible and meaningful. Progression along the life-cycle path was predominant, but regression could also be identified. An idle life-cycle stage could not be clearly identified using clustering. However, when investigating the shift between life-cycle stages, a substantial group of idle firms has been shown.

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1. INTRODUCTION

The firm life-cycle theory has been used to investigate several aspects of small business studies. Firm life-cycle theory describes the development path of organisations through various stages, whose characteristics substantially differ from each other, and follow each other in consecutive order. This definition can be derived from literature, relating life-cycle theory to business strategy (Lester, Parnell & Carraher 2003; Miller & Friesen 1984), entrepreneurship (Kimberly 1979; Quinn & Cameron 1983) and firm growth (Fitzsimmons, Steffens & Douglas 2005; Steffens, Fitzsimmons & Davidsson 2006). Firm life-cycle theory itself has been re-thought and criticised over the course of its development (Levie and Lichtenstein 2010, O'Farrell & Hitchens 1988), and has proven to be useful in explaining, or even predicting business behaviour (Lester, Parnell & Carraher 2003, McMahon 1998, 2001, Smith, Mitchell & Summer 1985), assisting managers (Adizes 1979, Lippitt and Schmidt 1967), and enabling academics to refine theories (Hanks 1993, Miller and Friesen 1984, Quinn and Cameron 1983).

Levie and Lichtenstein (2010) provide an overview of firm life-cycle literature published between 1962 and 2006. They emphasise their finding that the empirical validation of firm life-cycle theory is not rigorous and its application delivers ambiguous results. Four major points of criticism have been identified regarding the firm life-cycle theory: (1) empirical validation; (2) the nature of the life-cycle model (focuses on descriptive measures and not explanations); (3) life-cycle models considers one-way development and regression is not considered (O'Farrell & Hitchens 1988); (4) the developmental models depict a linear pathway and branching off this pathway is not considered (Lester, Parnell & Carraher 2003; Massey et al. 2006; McMahon 2001). Specifically for SMEs (Small and Medium Sized Enterprises), a further limitation can be identified. SMEs – rather than turning into decline – grow out of the size category (Kazanjian & Drazin 1989). This would either indicate a reduction of the number of firm life-cycle stages, or reverse transition (regression) in the firm life-cycle.

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This paper aims at empirically evaluating the applicability of the firm life-cycle theory based on investigating Australian SMEs in the ICT (Information Communication Technologies) sector, and reflects on the four points of criticism raised in literature.

2. A REVIEW OF FIRM LIFE-CYCLE THEORIES

Belak, Duh and Belak (2006) summarise different perspectives on firm life-cycle theory. Models of analogy (1) have been based on the product life-cycle concept as also discussed by Rink and Swan (1979). Crisis models (2) focus on the process of change within the organisations as illustrated by Churchill and Lewis (1983). Organisational life-cycle models (3) examine the development of organisational factors. This latter conceptual domain originates from the idea of evolutionary firm development described by Edith Penrose (1952). The focus of this study on the organisational development perspective is justified by the number of empirical studies operationalising and investigating SME life-cycle using this approach. A review of these studies is provided in the following section.

The review of firm life-cycle theory from conceptual and empirical papers indicates ambiguity, suggesting the need for further empirical validation. This claim is supported by the extensive review of papers performed by Levie and Lichtenstein (2010) highlighting sever shortcomings on empirical work investigating the firm life-cycle theory. Four critical points can be formulated by reviewing the taxonomy of firm life-cycle theories with regards to SMEs. The propositions reflecting on the points of criticism are tested using data investigating SMEs in the ICT sector.

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2.1. Taxonomy of firm life-cycle models

Researchers have proposed various models to explain organisational life-cycles. Most life-cycle models were characterised by the fact that the challenges and opportunities of the firm vary across different stages of the life-cycle (Lynall, Golden & Hillman 2003). Life-cycle models are reviewed in the following section, using conceptual papers as a basis. This will allow for the selection of the most applicable life-cycle model for empirical testing.

2.1.1. Stage numbers in different life-cycle models

The majority of papers discussing organisational life-cycle described four or five stages (see Table 1). Models consisting of four stages usually did not consider the total life-span of the examined entity, only the early stages of development.

Table1: Taxonomy of life-cycle models – number of stages

Number of stages	*Authors*
3	Lippitt and Schmidt (1967), Smith, Mitchell & Summer (1985)
4	Kazanjian and Drazin (1989), Kimberly (1979), Lyden (1975), Quinn and Cameron (1983), Steinmetz (1969)
5	Greiner (1972), Hanks et al. (1993), Miller and Friesen (1984), Penrose (1952), Scott and Bruce (1987)
6	Churchill and Lewis (1983)
10	Adizes (1979)

Models with less than four stages are more applicable to SMEs, indicating the difficulty of identifying a decline stage in SMEs. Models with more than five stages are rare, and predominantly appear in conceptual papers, suggesting that they are difficult to validate empirically. This suggests using models with not more than five stages to conceptualise organisational life cycle.

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2.1.2. Units of analysis in organisational life cycle models

Units of analysis varied across the studies of firm life-cycle. A broader category of subjects is organisations, which include both firms and public organisations. SMEs fall under the category of firms, but their life-cycle models bear unique characteristics (see Table 2).

SME specific life-cycle models have conceptualised four or five stages, as also illustrated by the classification of models above. Ideally, conceptualisations by Churchill and Lewis (1983), Kazanjian and Drazin (1989), Scott and Bruce (1987) or Steinmetz (1969) should be carried forward as theoretical foundation. However, due to the lack of verifiable, published instruments available for further quantitative investigation, models developed for different organisational units need to be considered.

Table 2: Taxonomy of firm life-cycle models – units of analysis

Units of analysis	*Authors*
Organisations	Adizes (1979), Greiner (1972), Hanks et al. (1993), Kimberly (1979), Quinn and Cameron (1983), Smith et al. (1985)
Public organisations	Lyden (1975)
Firms, companies	Lippitt and Schmidt (1967), Miller and Friesen (1984), Penrose (1952)
SMEs	Churchill and Lewis (1983), Kazanjian and Drazin (1989), Scott and Bruce (1987), Steinmetz (1969)

2.1.3. Selecting life-cycle model for empirical investigation

An empirical, quantitative study has been conducted by McMahon (1998, 2001) using data from the Australian Longitudinal Business Survey. McMahon (1998) started from the life-cycle model created by Hanks et al. (1993). The major difference between the model of Hanks et al. (1993) and the previous conceptualisations is the presence of branches on the development path of SMEs. Hanks et al. (1993) address these as 'disengagement stages', referring to capped growth and life-style enterprise scenarios. The common feature of these stages is that they stand out from the traditional life-cycle stage sequence. Both capped growth and life-style enterprise stages are non-growth and

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are not followed by other stages in the sequence. McMahon (2001) has provided empirical evidence for the life-cycle model, using secondary data made available by the Australian Bureau of Statistics. The availability of such data is however limited and replication is thus difficult.

Another empirical study using primary, quantitative data was conducted by Lester et al. (2003). Lester et al. (2003) base their model of SME life-cycle on ideas and findings of researchers, such as Penrose (1952), Greiner (1972), Quinn and Cameron (1983) and Miller and Friesen (1984). Their synthesis model contains five stages and uses a 20-item scale in assessing how managers perceive their organisations. They assume that the life-cycle model is a deterministic approach; its stages are a loosely compromised set of organisational activities and structures, and managerial focus is on external problems in the early stages and internal problems in the later stages. The five stage life-cycle model was supported by the research results of Lester et al. (2003) investigating SMEs in the manufacturing sector in the US. A further advantage of using this study as a basis is, that Lester et al. (2003) refined a questionnaire based on the empirically verified conceptualisation of Miller and Friesen (1984).

2.1.4. Review of Lester's five stage life-cycle model

Lester et al. (2003) empirically validated a five stage life-cycle model. The first stage (Existence) was characterised by the beginning of the organisation's development. Decision making and ownership is concentrated. The second stage (Survival) is the age when organisations seek to grow and establish their own distinct competencies. This stage is also characterised by active planning activities. The third stage (Success) is commonly called maturity, and represents efforts of formalisation, control and bureaucracy. The top management team usually focuses on planning and strategy. Stage four is the Renewal stage, in which organisations attempt to foster innovation and creativity. Such attempts involve creation of matrix structures and de-centralisation. Finally, in the decline stage, organisations are characterised by politics and power. Centralisation is a consequence of shrinking market shares and profit.

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In order to determine how strongly a particular stage's characteristics are represented in an organisation, every stage is assigned a set of four measures. These measures have been published (see Appendix 1), and Lester et al. (2003) have provided a foundation for assessing the validity and reliability of a replication study using these measures.

Lester et al. (2003) used principal components factor extraction technique to validate the five dimensions of the organisational life-cycle construct, and assessed the internal consistency of the reflective measures by Cronbach alpha scores. The alpha coefficients ranged between 0.57 and 0.85 indicating reliability of the measures of the five life-cycle specific sub-constructs. Correlation scores within the factors were relatively high (at least0.71) and cross correlations low (maximum of 0.31) suggesting validity of the sub-scales.

2.2. The critique of firm life-cycle models

Authors conducting empirical research into the applicability of the firm life-cycle theory on SMEs (Churchill & Lewis 1983; Kazanjian & Drazin 1989; Scott & Bruce 1987) have been able to identify several problematic issues regarding the life-cycle models. The sequential nature of the stages has not been proven beyond doubt. Further points of criticism have been raised by O'Farrell and Hitchens (1988), Levie and Lichtenstein (2010), and regarding the linearity of progression between life-cycle stages (Lester et al. 2003; Massey et al. 2006; McMahon 2001).

2.2.1. The issue of empirical validation

Firstly, O'Farrell and Hitchens (1988) and Levie and Lichtenstein (2010) point out that this empirical validation has been mostly conducted using small samples and cross-sectional data, instead of longitudinal data. This criticism is addressed in the studies of McMahon (2001) and Massey et al. (2006). McMahon (2001) used a relatively large sample in his effort to validate the life-cycle model, and Massey et al. (2006) conducted

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research using a case-study methodology applying the longitudinal approach. McMahon (2001) approved of the life-cycle model, with the exception that the development may branch off into non-growth stages. Massey et al. (2006) have found the life-cycle metaphor meaningful for their respondents. Both groups of authors have found the existence of the stage model proven, and the life-cycle model meaningful. O'Farrell and Hitchens (1988) also suggest that the stage model and the business life-cycle theories are based more on assumptions than scientifically collected evidence. This statement is, however, countered by a long list of successful empirical validations in the case of SMEs by Churchill and Lewis (1983), Hanks et al. (1993), Kazanjian and Drazin (1989), Kimberly (1979), Quinn and Cameron (1983), Scott and Bruce (1987) and Smith et al. (1985), some of which even date from before the work of O'Farrell and Hitchens (1988). Later, Müller (1999), McMahon (2001), Lester et al. (2003) and Massey et al. (2006) also successfully validated the life-cycle model.

2.2.2. Descriptive nature

The second group of critique is made regarding life-cycle and stage models themselves. The models describe the descriptive characteristics of firm life-cycle rather than explaining the underlying phenomenon of organisational development (O'Farrell & Hitchens 1988). The empirical validation efforts mostly have taken a quantitative approach. However, Massey et al. (2006) applied a qualitative methodology and found the business life-cycle metaphor proven to be meaningful to the interviewees participating in the research.

A further weakness of the life-cycle theories is the measurement issue. Typical measures of firm size are employment (measured in the number of full time equivalent employees), sales revenues and assets, but more sophisticated measures like product mix, value added or innovation rate are excluded. The cross-sectional investigation of these parameters implies descriptive outcomes. It also raises the issue whether and to what extent is it a valid practice to estimate dynamics (life-cycle stage changes) using static (cross-

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sectional) information. However, data availability and retrospective bias limits the possibilities of extending from descriptive studies on the matter.

2.2.3. Full cycle?

Thirdly, O'Farrell and Hitchens (1988) suggest that, SMEs pass through every stage of the development model. Regression is not considered. No evidence has been found to support this statement in the research reviewed in this study. Regression has in fact not been considered, but non-growth stages have been identified by Churchill and Lewis (1983), Hanks et al. (1993) and McMahon (2001). For instance, Lester et al. (2003) and Massey et al. (2006) included external parameters in their models. However, McMahon (2001) excluded these factors due to the specific nature of the data source used in his study. Generally speaking, any modelling needs boundaries to be set. The stages analysed in these models do not cover stages before start-up, though an attempt at such a conceptualisation has been made by Kimberly (1979).

2.2.4. Linearity

Fourthly, the linear nature of life-cycle models can be strongly criticised (Levie & Lichtenstein 2010). Empirical evidence of several authors (Lester et al. 2003; Massey et al. 2006; McMahon 2001) confirm the existence of life-cycle stages which represent a 'dead end' in terms of firm growth. These non-growth stages are external to the logic of the firm life-cycle models discussed earlier.

2.3. Research propositions

Life-cycle models have been applied to predict a probable way of firm development. They have been used to suggest managerial skills, knowledge, attitudes (Lippitt & Schmidt 1967), priorities (Scott & Bruce 1987) or efficient ways of problem solving

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(Lyden 1975); provide explanation for small business growth (Scott & Bruce 1987); identify internal (Churchill & Lewis 1983) and external (Quinn & Cameron 1983) factors responsible for success and failure of SMEs. The role of innovation and entrepreneurial activity has been analysed in the early stages of firm development by Kimberly (1979) using this framework.

The life-cycle phenomenon has been found meaningful by SME owner-managers (Massey et al. 2006), and evidence has been provided for the sequential nature of life-cycle stages (Lester et al. 2003). One important inconsistency has been recognised in the life-cycle models by Churchill and Lewis (1983) and Hanks et al. (1993), namely the existence of non-growth stages. McMahon (2001) has provided empirical evidence for the existence of these stages.

Researchers of firm life-cycle models have focused on the existence and nature of the stages (descriptive aspect), rather than the process of development (transition between stages). Shifting the focus of analysis of the life-cycle theory from description to transition can allow for further analysis of SME performance and growth.

The question this paper aims to answer is whether the life-cycle theory is applicable for SMEs. Based on the critique formulated by Levie and Lichtenstein (2010) and O'Farrell and Hitchens (1988), four propositions can be formulated:

1. SMEs can be classified into life-cycle stages.
2. Firm life-cycle stages follow each other in an established sequence.
3. SMEs typically do not fall into the final stage of the firm life-cycle.
4. An additional, idle stage can be identified in the life-cycle of SMEs.

3. METHODOLOGY

A quantitative methodology was used to assess the progression of SMEs in their life-cycle employing a survey based on Lester et al. (2003). A quantitative approach can be justified

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by the mature nature of firm life-cycle theory (Edmondson & McManus 2007). Data collection was conducted in Australia using an on-line survey. The owners, managers or key representatives of SMEs in the ICT sector were invited to participate in the survey. They were administered a questionnaire, which contained statements on their perception of the indicators of firm life-cycle stage. A measure previously tested, refined and published by Lester et al. (2003) was used. The respondents were asked to reflect on the statements as they see currently, and as they remember to have perceived four years ago. This solution for the data collection was considered acceptable – even though a strong response bias could be expected – given the difficulty of aligning respondents to obtain longitudinal data.

The measurement model was tested using PLS (Partial Least Squares) modelling, applying SmartPLS (Ringle, Wende & Will 2005). The use of PLS can be justified with the size of the sample, the distribution of the indicators, and the need for using summated scales as indicator scores for various life-cycle stages. This choice will be supported by relevant literature and statistical analysis supplying further justification for the application of the PLS technique in the following section. The respondents were classified into firm life-cycle stages using cluster analysis, and the stages were aligned to pre-defined firm life-cycle stage categories based on weighted average indicator scores. Hierarchical cluster analysis was applied to determine the potentially optimal number of clusters, and cluster membership was optimised using a non-hierarchical clustering method. Eventually, the results of this classification were used to identify the transition of companies between life-cycle stages within the examined time period.

3.1. The survey instrument

Lester et al. (2003) developed and tested a scale to measure a five-stage firm life-cycle model for SMEs. The empirical validation of this instrument was based on survey data obtained from the manufacturing sector. Based on 242 respondents (managers in the US), a reliability of 0.57 to 0.85 was reached (Lester et al. 2003) in terms of Cronbach's Alpha (Cronbach 1951).

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The original questionnaire used by Lester et al. (2003) is shown in Appendix 1. Respondents were asked to rate the statements using Likert response format expressing the extent to which they agree with them. In order to avoid double-barrelled questions, question two was broken up into two sub-questions which were presented separately within the questionnaire (see Appendix 2). The original question was substituted by the additional questions (generated by splitting an original question) in the measures of the firm life-cycle stage.

These questions were repeated as retrospective questions (with a different pre-face text) to allow the consideration of progress in the firm life-cycle path. In the section enquiring about the current situation, all 21 questions start with "In my opinion, during the last financial year, …", and in the section enquiring about the past, questions start with "In my view, during the financial year four years ago (or at founding), …".

In order to increase the engagement of the respondents, and avoid the respondents answering similar questions automatically, the questions were shuffled around between topics rather than asked in the thematic sequence shown in the original survey. The questions were numbered 1 to 42 in the survey, and were placed on the second and third pages of the questionnaire (see Appendix 3 for the link between survey items and constructs).

Further information was collected on the firms regarding their size (along the dimension of employment, turnover and asset size), age (year of founding) and growth (along the same dimensions as firm size: employment, assets and turnover), to enable the confirmation of firm life-cycle alignment. The measures of firm growth and firm life-cycle were based on 5 point Likert-type scales (a low value indicating disagreement, a high value showing agreement). Perceived firm growth was measured over the preceding four year time period, firm life-cycle was investigated as at the time of the survey (in 2009) and as four years before. The location of respondents was registered by collecting the post codes. This allowed the assessment of territorial distribution of the respondents. Firm age was calculated based on the indicated year of founding.

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3.2. Data collection

A survey exploring the indicators of firm life-cycle was conducted as part of a longer questionnaire testing a conceptual framework on the interaction of firm life-cycle, resources, expansion plans and firm growth (Perényi, Selvarajah & Muthaly 2008) as part of a PHD project. The questions were placed in the beginning of the 100 question survey. The high number of questions in the survey impacted upon the response rate.

Porter (2004) points out that there is no reason to assume a lower response rate for web based compared to paper based surveys. In fact, the response rate gap between the different kinds of survey administration channels depends on the access for and comfort of the population in responding via a digital medium. It can reasonably be assumed that owners, managers or key employees of ICT businesses are comfortable with responding to web-based surveys, and have sufficient access to email and internet as well.

Table3: Australian response statistics

	Invitations sent	Invalid addresses	Valid addresses	Responded	Response rate
Wave 1	Invitation sent in newsletter			7	
Wave 2	2,291	585	1,706	68	3.99%
Wave 3	3,083	567	2,516	92	3.66%
TOTAL	*5,397*	*1,104*	*4,222*	*167*	*3.96%*

A clear advantage of sending invitations via email is that in case of faulty addresses an instant notification is provided by the mail server. An approximately 20% rate of bounced emails was experienced in both set of addresses. Several addressees indicated that their business was not within the requested industry and these contacts were classified as invalid. Data was collected in three distribution waves. The response figures and rates are displayed in Table 3. An overall response rate of 3.96% has been achieved, which is within the parameters suggested by the list broker. We also suspected that a further factor reduced the response rate; many of the contact email addresses were not person-specific, but general ('info@') addresses which may have ended up going unnoticed.

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After exclusion of responses a high proportion (over 50%) of missing data, 141 usable responses were gained. Response bias analysis was conducted on the usable responses (see Table 4). Comparing Wave 2 to Wave 3 responses found that Wave 2 respondents were significantly ($p<0.01$) smaller than Wave 3 respondents. Statistically significant comparison with Wave 1 responses was not possible due to small response numbers in that category. However, it was found that responses on dimensions of growth did not show significant ($p<0.01$) difference between Wave 2 and Wave 3 respondents (1 indicating low, 5 high annual growth).

Table 4: Response bias analysis

		Median			Mean (latent variable score)		
	N	Number of employees	Annual turnover	Total assets	Employment growth	Turnover growth	Asset growth
Wave 1	5	(Insufficient response number for testing.)					
Wave 2	54	1-9 (employees)	A$ 0-3.5m	A$ 0-3.5m	2.50	2.68	2.60
Wave 3	82	4	3	3	2.86	3.05	2.89
Significance		*0.000*	*0.000*	*0.000*	*0.024*	*0.024*	*0.045*
t-value		*-9.849*	*-6.935*	*-5.326*	*-2.276*	*-2.285*	*-2.021*

Figure 1 displays the territorial distribution of respondents in Australia. It needs to be pointed out that only four out of 141 responses came from outside urban areas. Over 50% of the respondents are from Victoria, which could be explained by the skewness of the distribution list towards Victoria. (This distortion is due to the sample structure, where Victorian firms were over-represented.) The second highest number of responses came from New South Wales, corresponding to the regional importance of the industry. There are no respondents from the Northern Territory.

Information on three dimensions of firm size (employee number, annual turnover and total assets) was collected in the demographic section of the survey. (Cases which displayed two out of the three dimensions outside the small and medium sized threshold were excluded from the analysis, as discussed earlier.) Given the ordinal nature of the measure, the median expresses the central tendency of the population most accurately.

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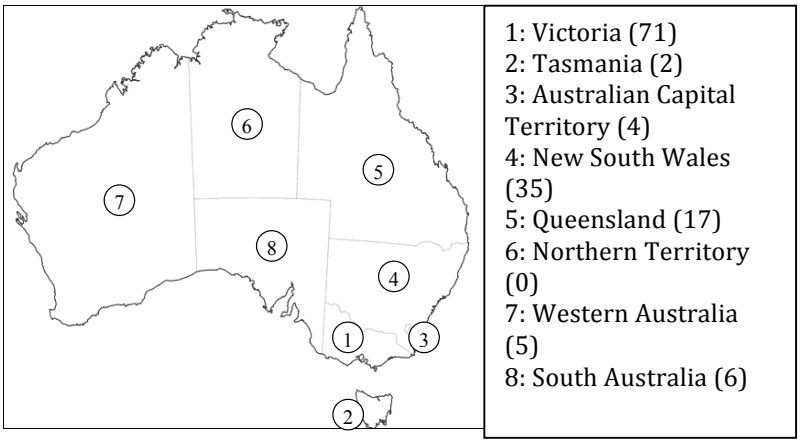
The median respondent had 10-19 employees, earning up to A$3.5 million annually with a capital invested of approximately A$3.5-10 million.

Figure1: Location of respondents in Australia



Map altered based on Geoscience Australia (2005)

Firm age is measured by asking the respondents for the year of founding and the year in which the company started its operations. The firm founded earliest was established and started its operations in 1954. The latest dates of operational start and founding were in 2007. Given that the data collection took pace in 2009, firm age can be calculated by subtracting the indicated year from 2009. After computing the firm age variable based on both the year of founding and the start of operations, the median age of firms is 12.

In terms of the total population, the availability of details is limited. The employee size distribution of SMEs can be used to estimate the expected distribution of firm size in the ICE sector. There were 2,011,770 actively trading businesses in Australia in June 2007. A total of 42% of these were employing, less than 1% of which employed 200 or more, 9% employed 20-199, 90% under 20 people and 30% fewer than five people (ABS 2007). However, given reliance of the sampling method on the availability of respondent email contact details, more accurate comparison of respondents to the total population is not possible.

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3.3. Analytical method

PLS was chosen as the multivariate method to assess the measurement model. It imposes minimal demands on measurement scales, sample size, residual (error term) distributions and independence of observations (Chin 1998; Chin & Newsted 1999). There are minimum sample size requirements for PLS modelling. Based on multiple regression method used by PLS, it is advised to use at least ten times as many cases, as the largest number of independent latent variables influencing a dependent latent variable (Chin 1998; Chin & Newsted 1999; Henseler, Ringle & Sinkovics 2009). In this case, the firm life-cycle construct is composed of five sub-constructs, corresponding to the five life-cycle stages, suggesting that the evaluation of the measurement model in PLS requires a minimum of 50 responses.

PLS is a distribution-free method; thus, it does not allow distribution-dependent statistical testing. However, with different strategies, such as bootstrapping, distribution-dependent tests can still be performed (Henseler et al. 2009). This allows the significance-testing of the measurement model. Bootstrapping can be used to estimate the t-value of path-coefficients and loadings in PLS models (Chin 1998). Bootstrapping is a non-parametric validation procedure which involves the re-sampling of the original data-set a number of times, thus enabling the estimation of t-values and confidence-intervals (Tenenhaus et al. 2005). Efron and Tibshirani (1998) suggest that the typical number of replications ranges between 50 and 200, but even 200 replications may not allow the accurate estimation of confidence intervals. Tenenhaus et al. (2005) demonstrate bootstrapping using 200 resamples, stating that it may lead to reasonable standard error estimates. Given the computing capacity at hand, a resampling of 500 is used for the validation of the model. This resampling number is also suggested by Efron and Tibshirani (1998), and will be used in this research.

Hair et al. (2006) recommend hierarchical clustering for determining the optimal number of clusters. They prescribe observing the change of the agglomeration index (as calculated by SPSS) in case of the different number of clusters. If the increase in the agglomeration index starts to accelerate with the decrease of the number of clusters, a potentially good

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cluster number is reached. Hair et al. (2006) point out, that observations cannot be removed from clusters in the process of hierarchical clustering, which potentially distorts the cluster solution and creates a sub-optimal cluster structure. They recommend, as non-hierarchical clustering produces a more robust result, that in order to eliminate the bias of this distortion, the final cluster membership should be established using a non-hierarchical clustering method. These recommendations for the process of clustering are observed and implemented when arranging the respondents into firm life-cycle groups.

4. DATA ANALYSIS

After assessing the extent of the missing data, excluding cases with insufficient information (lacking more than 50% of the responses for the firm life-cycle measure) and implementing regression-based imputation (as implemented by SPSS), a dataset of 141 cases was acquired. The distribution of most of the variables significantly deviated from the normal distribution at the univariate level (see Appendix 4), both according to the Shapiro-Wilks and the Kolmogorov-Smirnov tests (Hair et al. 2006) at a $p<0.01$ level, ($df=141$). The sample size is relatively small for factor analysis. Basic requirements of factor analysis state that it is recommended to have ideally up to 10 times as many cases as indicators (Hair et al. 2006), which would suggest at around 210 respondents for the 21 indicators of the five factor firm life-cycle measure. A further argument supports the use of an different testing method for the measures. As also stated by Guadagnoli and Velicer (1988), replicable factor structures tend to have either four variables per factor, with structure coefficients over $|0.6|$ or have 10 or more structure coefficients with lower loadings, but substantial sample size. Even though the model of Lester et al. (2003) was validated using principal components factor analysis, his results did not fulfil such criteria, suggesting that validation using a similar method would be difficult. Combined with the ability of PLS to provide latent variable scores, handle data of non-normal distribution and small sample sizes, this analytical technique has been used to test the reliability of the measures (correlation matrix of the total data set serving as the basis of analysis is displayed in Appendix 4).

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4.1. Measurement model testing

The measurement model was tested using SmartPLS (Ringle, Wende & Will 2005). While recognising the limitations of this statistical testing method in comparison to factor analysis in terms of validating the measurement model, it needs to be noted, that the validity of the life-cycle stage measures is strongly supported by the empirical results of Lester et al. (2003) who refined and statistically tested the measures developed by Hanks et al. (1993). Wilson and Henseler (2007) suggest multiple alternatives of assessing validity and reliability of higher-order reflective construct models using PLS. Wetzels, Odekerken-Schroeder & van Oppen (2009) describes the most commonly used validation process of such hierarchical construct models in detail.

After removing the indicators with insufficient loading, the fit (convergent and discriminant validity) and reliability of the measurement model was established for both the Current and the Initial dimensions of the firm life-cycle measurement. Chin (2010) provides a comprehensive guide to evaluating PLS models and reporting PLS model results. The recommended indicator for assessing reliability of measures is Composite Reliability, also referred to as Dillion-Goldstein's Rho (Dillon & Goldstein 1984). Chin (2010) also recommends reporting Cronbach's Alpha as it is a reliability measure traditionally reported for assessing the reliability of constructs. The higher-order measurement model of firm growth was confirmed using the framework provided by Wilson & Henseler (2007) and Wetzels et al. (2009). Appendix 5 provides an account of the details of the measurement model. It is important to highlight, that the AVE (average variance extracted, describing the shared variance between the indicators and the average weighted construct score) indicators for every construct was above 0.5, all composite reliability indicators were higher than 0.7 (see Tables 5.3 and 5.4 in Appendix 5) and the values of the correlation matrix were all below the square root of the construct-specific AVE scores (see Tables 5.1 and 5.2 in Appendix 5) approving of the reliability, convergent and discriminant validity of the measures (Chin 2010; Wilson & Henseler 2007, wetzels et al. 2009).

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One issue can be highlighted based on the loadings and cross-loadings of indicators onto the life-cycle stage constructs. Even though the loadings (based on which the weighted average constructs scores have been computed) are sufficiently high (mostly over 0.7, see Tables 5.3 and 5.4 in Appendix 5), there are a few cross-loadings that are also relatively high (in the domain of 0.6). This suggests, that even though convergent and discriminant validity of the measurement model can be confirmed, using the framework of Wetzels et al. (2009), further analysis based on the weighted average construct scores of the life-cycle specific factors will be affected. Thus these factors are non-orthogonal. However, given the empirical support of the factor structure of the measures provided by Hanks et al. (1993) and Lester et al. (2003), this shortcoming of the data does not justify discarding the model.

A further issue can be raised regarding the decline construct. As the validation process of the measurement model only left two items within the construct. These two items quite strongly cross-load onto the existence construct measures for both the Current and Initial dimensions of firm life-cycle. The face validity of the measures can also be questioned, as due to the exclusion of two out of four original items, the decline construct much rather expresses centralisation within the firm, than characteristics of the decline stage. On this account, the decline construct is excluded from further analysis.

The results of bootstrapping with a resample size of 500 confirm the significance of every factor loading in the measurement model at a $p<0.01$ level (all t-values calculated based on bootstrapping exceeded 2.54).

4.2. Firm life-cycle clustering

The optimal number of clusters is determined using hierarchical clustering. The final cluster solution is generated using a non-hierarchical clustering method. The hierarchical clustering procedure does not allow units of observation to leave a cluster, resulting in a sub-optimal cluster structure in terms of separation. In this way, the restrictions of

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hierarchical clustering can be eliminated while utilising the method's strength in determining the optimal cluster number.

4.2.1. Number of clusters

Lester et al. (2003) suggested using hierarchical clustering based on Ward's distance. The relative increase of Ward's agglomeration coefficient in the hierarchical clustering process indicates potentially optimal cluster-number solutions (Hair et al. 2006). Firstly, hierarchical clustering was conducted based on the five weighted average factor scores of the Current dimension of the firm life-cycle. The agglomeration coefficient (calculated by SPSS using Ward's distance) starts increasing more rapidly after six clusters (9.96%), five clusters (10.03%), four clusters (9.25%), three clusters (30.26%) and two clusters (80.43%). This indicates that the seven-, six-, five-, four-, three- and two-cluster solutions can be acceptable. The hierarchical clustering of the Initial firm life-cycle stage delivered similar results. The agglomeration coefficient gradually increased after the six-cluster solution (9.55%), five-cluster solution (15.05%), four-cluster solution (17.92%), three-cluster solution (60.6%) and two-cluster solution (78.86%).

Hair et al. (2006) emphasise that two-cluster solutions usually seem relatively attractive when observing the increase of the agglomeration coefficient. Theory supports the five-cluster solution with reference to the life-cycle models consisting of five stages. Discriminant analysis is applied to validate cluster solutions. The five-cluster solution has a 97.2% predictive accuracy, for both the Current and 95.7% predictive accuracy for the Initial firm life-cycle classification. This demonstrates that the five-cluster classification is well applicable.

4.2.2. Firm life-cycle clustering

After using the hierarchical clustering method and discriminant analysis to determine the applicability of the five-cluster solution, non-hierarchical clustering procedure was used

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to identify cluster-membership of the cases. The Current firm life-cycle dimension clustering solution displays one cluster with very low membership (only 2 members). In the Initial firm life-cycle five-cluster solution, the distribution of cluster memberships displays a much more even pattern. For the sake of comparability, the analysis of the five-cluster solution is further explored for both Current and Initial dimensions.

After investigating the firm life-cycle dimensions for the Current firm life-cycle classification, the different clusters can be classified into firm life-cycle stages. The original model of Lester et al. (2003) suggested 5 stages: Existence, Survival, Success, Renewal and Decline. After comparing the results with the firm age and growth indicators, as well as the firm size categories, the firm life-cycle stages were identified. The Current existence cluster contains relatively small and young firms, with a low perceived growth rate. Firms in the Current survival cluster are of similar age but somewhat larger, and show more perceived growth. The Current success stage consists of somewhat older, medium sized firms, displaying some growth. Companies in the renewal 1 stage are substantially older and larger than the others, showing promising signs of growth. The renewal 2 cluster only consists of two older firms, which display moderate growth and small size, particularly in terms of total assets. Table 5 summarises the cluster characteristics.

In order to identify the Initial life-cycle stages, the cluster profile characteristics were compared to the Current firm life-cycle cluster characteristics. Figure 2 displays the similar cluster-profiles. Firms were assigned to a particular cluster – as discussed above – based on the weighted average factor scores both according to the Current and Initial dimensions of the firm life-cycle. In order to identify, which Initial cluster corresponds to which Current cluster, the cluster profiles are matched up based on the similarity of their weighted average factor scores. Every life-cycle cluster contains respondents scoring high – in comparison to other clusters – on the corresponding life-cycle stage specific factor. In order to match up Initial and Current life-cycle clusters, matching organisational characteristics profiles were sought between the clusters using these factor scores.

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Table 5: Current and Initial firm life-cycle cluster characteristics

		1	*2*	*3*	*4*	*5*
Current clusters (cluster centres)		*Survival (current)*	*Renewal 1 (current)*	*Existence (current)*	*Renewal 2 (current)*	*Success (current)*
Current firm life-cycle latent variable scores	Existence (reversed)	3.72	2.38	4.34	2.87	2.57
	Survival	3.46	3.95	2.09	1.69	3.02
	Success	2.47	3.82	1.64	4.83	3.03
	Renewal	2.10	3.58	1.62	4.60	2.52
Current cluster size		47	41	27	2	24
Current firm growth (means)		2.52	3.18	2.27	3.08	3.08
Current firm size indicators (cluster median)	Employment	1-9	20-49	1-9	1-19	10-19
	Annual turnover	A$ 3.5-10m	A$ 17-83m	A$ 3.5-10m	A$ 0-10m	A$ 3.5-10m
	Total assets	A$ 0-3.5m	A$ 3.5-10m	A$ 0-3.5m	A$ 0-3.5m	A$ 0-3.5m
Current firm age (median)		9	18	9	30	14
		1	*2*	*3*	*4*	*5*
Initial clusters (cluster centres)		*Renewal (initial)*	*Survival (initial)*	*Existence 1 (initial)*	*Success (initial)*	*Existence 2 (initial)*
Initial firm life-cycle latent variable scores	Existence (reversed)	1.77	4.33	4.73	3.44	3.44
	Survival	3.82	3.21	1.61	3.77	2.54
	Success	3.97	1.90	1.22	3.37	2.51
	Renewal	3.89	1.96	1.23	3.24	2.16
Initial cluster size		11	35	37	26	32

The Current existence, survival, success and renewal 1 clusters could be matched up with the corresponding Initial clusters. The organisational characteristics of the Current renewal 2 stage were different, but still demonstrated the necessary renewal stage characteristics of the firms. In the five-cluster solution of the Initial dimension of the firm life-cycle, the Existence stage characteristics were identified in into two different clusters:

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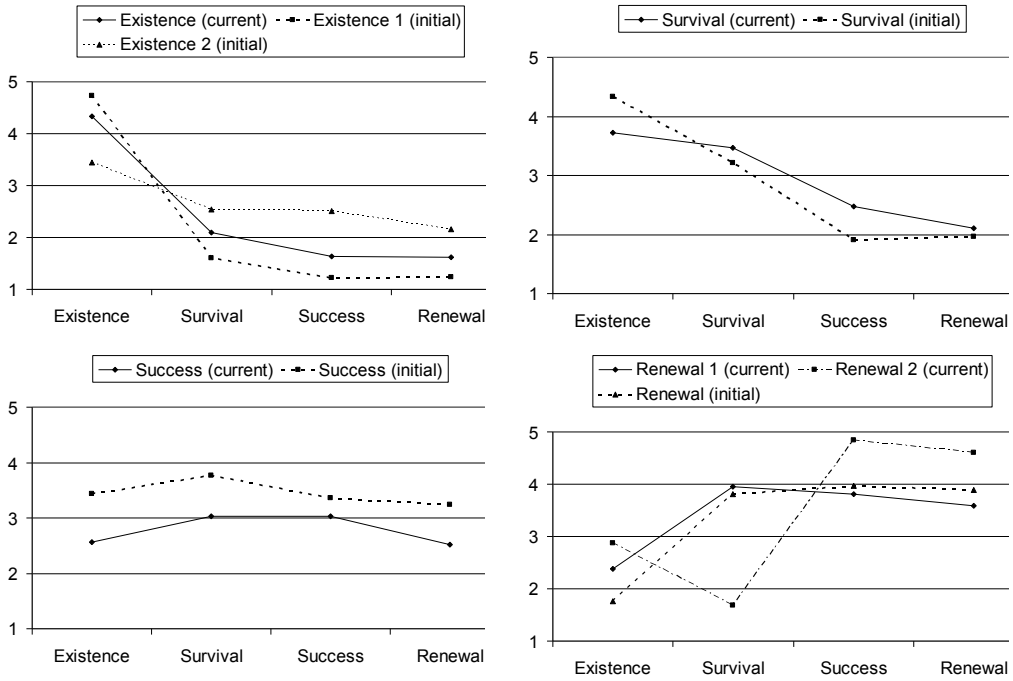
existence 1 and existence 2. These clusters show some similarity in terms of cluster profile, but existence 1 firms are substantially younger than existence 2 firms.

As demonstrated by the cluster profiles and the size, age and growth characteristics of the cluster members, four basic life-cycle stages could be identified: existence, survival, success and renewal, as described by (Lester et al. 2003)

Figure 2: Comparison of five-cluster solutions profiles between Current and Initial dimensions of the firm life-cycle



(Y axis displays the weighted average factor scores for the different factors identified of the X axis.)

4.2.3. Transition between firm life-cycle stages

Figure 3 displays the forward (progression) and backward (regression) transitions of firms between life-cycle stages in the investigated four year time period. The numbers on the arrows show how many firms made the particular shift, while the numbers within the brackets show how many firms remained in the same stage. 84 out of the 141 cases

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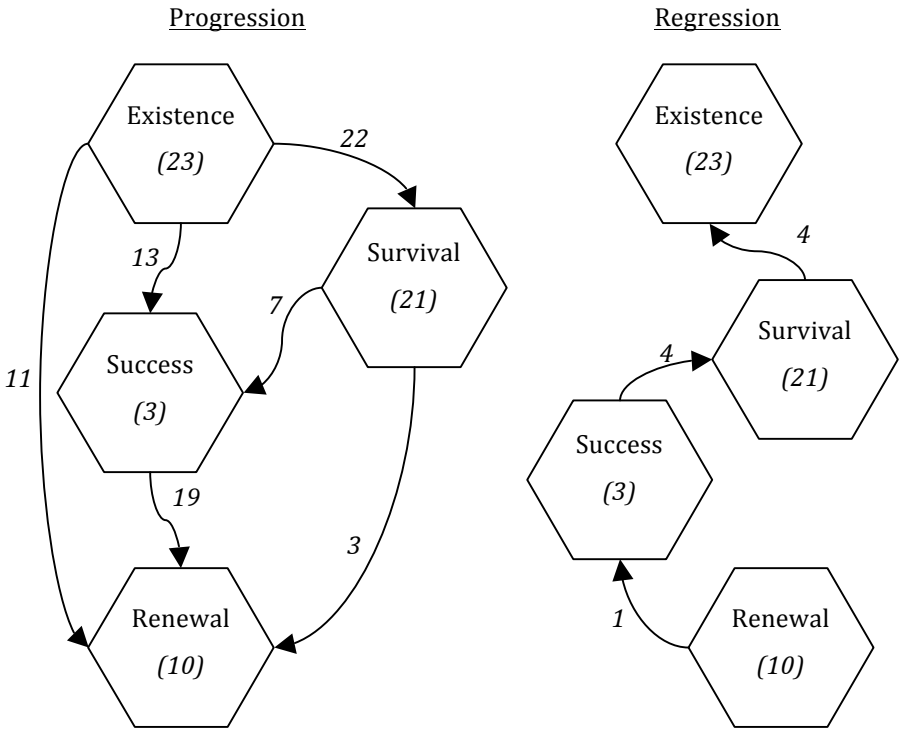
demonstrated shifts between the life-cycle stages, out of which only 9 transitioned backwards, while 75 transitioned forward. This demonstrates that firms typically move forward in their life-cycle in time.

Figure 3: Firm Life-cycle transitions in the five-cluster solution



5. CONCLUSIONS

The first proposition – that firms can be grouped into life-cycle stages in a meaningful way based on organisational characteristics – has been supported by the clustering process. However, atypical life-cycle stages – such as the Current renewal 2 and the Initial existence 2 stages – were identified which weaken the support of this proposition.

The second proposition – that firm life-cycle stages follow each other in an established sequence – can be partially supported by the results of the analysis. Progressive transitions highly outweighed the backwards shifts (see Figure 3), within the examined time-frame. It cannot be established however, whether the firms have gone through all the stages between existence and renewal, or have jumped from one to the other. Previous

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investigations on Australian (McMahon 2001) and US (Hanks et al. 1993) SMEs indicate, that the examined time-frame of 4 years should not allow more than one stage-shift in an average case. This suggests that even though stages can be assumed to mostly follow each other in a pre-determined sequence, probably not all firms progress through all stages to get to one from the other.

The third proposition – that SMEs typically do not fall into the final (decline) stage of the life-cycle – gained limited support from the analysis described above, as the decline construct was excluded from the clustering due to the lack of the validity of its measures. However the fact that measures of the decline stage have not been proven to be valid suggests, that this decline stage can indeed not be identified, and thus is not there in the life-cycle of SMEs. Another indication of the lack of a decline stage is the very low amount of cases transitioning out of the decline stage in the investigated time period.

The fourth proposition – the existence of an idle stage in the firm life-cycle sequence – can be supported, as 57 of the 141 cases have not shown progress in the life-cycle, with a particularly high number of firms remaining in the existence (23) and survival (21) stages. This finding suggests, that these firms were indeed in an idle stage, particularly as the typical length of this stage exceeds the investigated four year time period, which is shorter than what firms are supposed to spend in this stage of the life-cycle according to the results of empirical investigation (Hanks et al. 1993; McMahon 2001).

6. LIMITATIONS AND FURTHER RESEARCH

Altogether it can be concluded, that the propositions on the investigated features of the firm life-cycle model could be supported, although some limitations needed to be highlighted. Further, longitudinal investigation would be required to assess the transition process of firms between life-cycle stages to address the ambiguity of the results regarding the second proposition. Regarding the third proposition – the lack of a decline stage in SME life-cycle – further investigation could be conclusive in terms of establishing the results, which allows sampling firms that have actually gone out of

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business, as it can be assumed, that the decline stage in the life of an SME is very short due to the lack of capital funding unprofitable operations.

An important aspect of the operationalisation of the investigation is, that dynamics (transitions between life-cycle stages) are being estimated based on static (cross-sectional) observation. In other words, if one observes the Sun over the equator every 24 hours, one would find it to be still, while observation every 25 hours for instance would allow the conclusion, that it is moving backwards. The elimination of such a bias in investigating life-cycle progression can only be eliminated using detailed longitudinal data. This highlights a serious limitation of the current study. Whether the four year retrospective time period was appropriate for the investigation, it is hard to tell. Prior empirical evidence – as shown in the review – indicated that even the shortest life-cycle stage is, on average, longer than four years (Hanks et al. 1993; McMahon 2001). As the time-frame of investigation has been specifically chosen for this reason, this limitation has been addressed to the possible level in this investigation.

It has been noted, that the validation of the measurement model was weakened by strong cross-loadings of the indicators between the life-cycle specific factors. This allows the identification of a further limitation of the research, namely, the shortcomings of the measurement model validation process. The clustering using the weighted average scores of the non-orthogonal life-cycle specific factors results in potentially overlapping cluster membership of the firms. In other words, classification into life-cycle stages simplifies the fact that firms continuously transition between these stages, and display lower, but still notable organisational characteristics of other life-cycle stages. This could be one of the reasons, that the decline stage factor was not validated, and identified in the clustering process. This also may have resulted in inaccurate classification of the respondents into life-cycle stages to a small extent. This ambiguity calls for the re-thinking of the measurement model, to achieve stronger validation.

Further research in the topic needs to explore the existence of a decline stage, to clarify the reason why it was not identifiable. One possibility seems to be, that SMEs exit quickly, and thus surveying firms in this stage using a cross-sectional approach is

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virtually impossible. Another possibility is, that instead of moving on to a decline stage, SMEs only revert into a previous, stagnant or idle developmental stage. It is also possible, that this measurement tool – using organisational characteristics to classify respondents into life-cycle stages – is not able to identify decline-configurations in SMEs. Either way, this extension of the investigation probably requires a longitudinal, qualitative approach to explore the problem further.

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APPENDIX 1

1. Our organization is small, both in size and relative to our competitors.
2. As a firm, we are larger than most of our competitors, but not as large as we could be.
3. We are a widely dispersed organization, with a board of directors and shareholders.
4. The seat of power in our firm is primarily in the hands of the founder.
5. Power in our firm is spread among a group of several owner/investors.
6. Power in our firm is concentrated in our vast number of shareholders.
7. Our firm's organizational structure could best be described as simple.
8. Our structure is department-based and functional, becoming much more formal.
9. Structure in our firm is divisional or matrix in nature, with highly sophisticated control systems.
10. Our structure is centralized with few control systems.
11. In our organization, we have some specialization (accountants and possibly engineers, e.g.) and we are becoming somewhat differentiated.
12. Information processing could best be described as simple, mostly word-of-mouth.
13. Information processing is best described as monitoring performance and facilitating communication between departments.
14. Information processing is sophisticated and necessary for efficient production and earning adequate profits.
15. Information processing is very complex, used for coordination of diverse activities to better serve markets.
16. Information processing is not very sophisticated, but badly needed.
17. Decision-making is centralized at the top of the organization and considered to be not very complex.
18. Most decisions in our firm are made by a group of managers who utilize some systematic analyses, but who are still fairly bold.
19. Most decisions in our firm are made by managers, task forces, and project teams who are trying to facilitate growth through participation.
20. Most decisions in our firm are made by a few managers who take a conservative, internally political approach." (Lester et al. 2003, p. 354.)

APPENDIX 2

Original double-barrelled question	Split question statements
"2. As a firm, we are larger than most of our competitors, but not as large as we could be." *(Lester et al. 2003, p. 354)*	In my opinion, during the last financial year, as a firm, we were larger than most of our competitors.
	In my opinion, during the last financial year, as a firm we were not as large as we could be.

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APPENDIX 3

	Question theme	Question number	
		Current	Initial
Existence	Organisation is small	1	22
	Power rests with founder	2	23
	Simple structure	3	24
	Simple information processing	4	25
Survival	Power spread among several owners/investors	7	28
	Some specialisation	18	39
	Information processing consists of monitoring performance	9	30
	Decision making includes some analysis	10	31
Success	Larger than other competitors	6	27
	Not as large as could be	21	42
	Power distributed among numerous shareholders	12	33
	Structure is functional and becoming much more formal	8	29
	Information processing is sophisticated	14	35
Renewal	Widely dispersed organisation	11	32
	Structure is divisional or matrix	13	34
	Information processing is complex	17	38
	Decisions emphasise growth and participation	15	36
Decline	Centralised structure with few control systems	16	37
	Information processing not sophisticated but badly needed	20	41
	Centralised decision making, not complex	5	26
	Decision by a few conservative managers	19	40

APPENDIX 4

Table 4.1: Descriptive statistics of variables not measured on a Likert type scale

	N		Median	Mode	Range	Minimum	Maximum	Percentiles		
	Valid	Missing						25	50	75
Firm age in years	140	1	11	8	53	2	55	7	11	22
Firm size - number of employees	141	0	20-49	1-9	250+	0	250+	1-9	20-49	20-49
Firm size - annual turnover (A$ millions)	138	3	3.5-10	0-3.5	83+	0	83+	0-3.5	3.5-10	10-17
Firm size - balance sheet total (A$ millions)	131	10	0-3.5	0-3.5	83+	0	83+	0-3.5	0-3.5	3.5-10

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Table 4.2: Descriptive statistics of variables measured on a Likert type scale

Variable name	*Variable description*	Mean	Median	Mode	Std. Dev.	Skewness	Kurtosis	Min.	Max.
EX1S	Organisation size (small)	3.32	4	4	1.34	-0.39	-1.06	1	5
EX2PS	Power with founder	3.38	4	5	1.50	-0.36	-1.33	1	5
EX3COS	Simple organisational structure	3.81	4	5	1.22	-0.78	-0.49	1	5
EX4IS	Simple, word-of-mouth information systems	2.38	2	2	1.19	0.80	-0.22	1	5
DE1DM	Centralised and simple decision making	3.22	3	2	1.34	-0.12	-1.27	1	5
SC1S	Organisation size (larger than competitors)	2.45	2	2	1.20	0.48	-0.80	1	5
SR1PS	Power widely spread	2.97	3	4	1.44	-0.10	-1.44	1	5
SC2COS	Functional, formal structure	3.11	4	4	1.32	-0.27	-1.21	1	5
SR2IS	Information systems monitor and facilitate	3.03	3	4	1.15	-0.11	-0.95	1	5
SR3DM	Decisions made by small group	3.41	4	4	1.12	-0.87	-0.09	1	5
RE1S	Widely dispersed organisation	2.27	2	1	1.51	0.74	-1.06	1	5
SC3PS	Power with many shareholders	1.39	1	1	0.68	2.17	6.13	1	5
RE2COS	Sophisticated organisational structure	2.18	2	1	1.20	0.79	-0.37	1	5
SC4IS	Sophisticated information systems for profit making	2.92	3	4	1.28	-0.15	-1.20	1	5
RE3DM	Team orientated decision making	3.24	3	4	1.21	-0.45	-0.72	1	5
DE2COS	Centralised organisational structure	2.99	3	2	1.20	0.00	-1.06	1	5
RE4IS	Complex information system (coordination, servicing)	2.5	2	2	1.22	0.40	-0.92	1	5
SR4COS	Specialised organisational roles	3.3	4	4	1.19	-0.67	-0.45	1	5
DE3DM	Centralised, political decision making	2.25	2	2	1.18	0.79	-0.38	1	5
DE4IS	Simple but badly needed information systems	2.33	2	2	1.13	0.48	-0.75	1	5
SC5S	Organisation size (not as large as potentially)	3.76	4	4	0.99	-0.83	0.36	1	5
PEX1S	Organisation size (small)	3.94	4	5	1.18	-0.91	-0.26	1	5
PEX2PS	Power with founder	3.88	4	5	1.35	-0.96	-0.44	1	5
PEX3COS	Simple organisational structure	4.13	4	5	1.08	-1.38	1.39	1	5
PEX4IS	Simple, word-of-mouth information systems	3.4	4	5	1.32	-0.25	-1.25	1	5
PDE1DM	Centralised and simple decision making	3.94	4	5	1.12	-0.92	0.01	1	5
PSC1S	Organisation size (larger than competitors)	2.06	2	1	1.16	0.77	-0.61	1	5
PSR1PS	Power widely spread	2.95	3	4	1.49	-0.06	-1.52	1	5
PSC2COS	Functional, formal structure	2.37	2	1	1.27	0.49	-1.02	1	5
PSR2IS	Information systems monitor and facilitate	2.6	2	2	1.20	0.12	-1.23	1	5

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		3							
PSR3DM	Decisions made by small group	2.98	3	4	1.29	-0.24	-1.23	1	5
PRE1S	Widely dispersed organisation	1.9	1	1	1.24	1.30	0.50	1	5
PSC3PS	Power with many shareholders	1.5	1	1	0.91	2.63	7.46	1	5
PRE2COS	Sophisticated organisational structure	1.95	2	1	1.12	1.10	0.38	1	5
PSC4IS	Sophisticated information systems for profit making	2.45	2	1	1.28	0.29	-1.34	1	5
PRE3DM	Team orientated decision making	2.77	3	4	1.30	0.01	-1.32	1	5
PDE2COS	Centralised organisational structure	3.42	4	4	1.28	-0.46	-0.98	1	5
PRE4IS	Complex information system (coordination, servicing)	2.25	2	1	1.19	0.49	-1.03	1	5
PSR4COS	Specialised organisational roles	2.76	3	4	1.25	-0.15	-1.35	1	5
PDE3DM	Centralised, political decision making	2.44	2	1	1.30	0.44	-1.14	1	5
PDE4IS	Simple but badly needed information systems	2.84	3	4	1.29	0.01	-1.24	1	5
PSC5S	Organisation size (not as large as potentially)	4	4	4	1.05	-1.06	0.55	1	5
FTEGO1	Slow employment growth	2.77	3	4	1.18	-0.01	-1.07	1	5
FTEGO2	Employment growth faster than competition	2.96	3	3	1.13	-0.36	-0.74	1	5
FTEGO3	Employment growth below potential	3.12	3	4	1.13	-0.24	-0.78	1	5
FTEGO4	Very fast employment growth	2.13	2	1	1.19	0.85	-0.35	1	5
ATGO1	Slow turnover growth	2.84	3	2	1.19	0.09	-1.10	1	5
ATGO2	Turnover growth faster than competition	3.07	3	3	1.07	-0.29	-0.57	1	5
ATGO3	Turnover growth below potential	3.72	4	4	0.91	-0.89	0.68	1	5
ATGO4	Very fast turnover growth	2.41	2	2	1.26	0.53	-0.89	1	5
TVAGO1	Slow asset growth	3.04	3	3	1.10	-0.22	-0.67	1	5
TVAGO2	Asset growth faster than competition	2.98	3	3	1.00	-0.47	-0.31	1	5
TVAGO3	Asset growth below potential	3.6	4	4	0.92	-0.74	0.24	1	5
TVAGO4	Very fast asset growth	2.38	2	2	1.16	0.46	-0.69	1	5

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Table 4.3: Correlation matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	EX1S	1																			
2	EX2PS	.35**	1																		
3	EX3COS	.43**	.47**	1																	
4	EX4IS	.33**	.28**	.32**	1																
5	DE1DM	.37**	.30**	.33**	.48**	1															
6	SC1S	-0.71	-0.33	-0.36	-0.21	-0.32	1														
7	SR1PS	-0.01	-0.22	-0.02	-0.09	-0.16	0	1													
8	SC2COS	-0.41	-0.4	-0.36	-0.33	-0.34	.43**	0.09	1												
9	SR2IS	-0.31	-0.37	-0.33	-0.21	-0.21	.33**	0.1	.59**	1											
10	SR3DM	-0.09	-0.33	-0.15	-0.12	-0.25	0.05	.20*	.26**	.31**	1										
11	RE1S	-0.26	-0.64	-0.44	-0.24	-0.34	.29**	.24**	.43**	.37**	17*	1									
12	SC3PS	-0.07	-0.38	-0.31	-0.07	-0.2	.19*	0.13	.21*	0.12	0.134	.59**	1								
13	RE2COS	-0.36	-0.48	-0.45	-0.31	-0.5	.42**	0.09	.52**	.34**	.22**	.46**	.32**	1							
14	SC4IS	-0.29	-0.37	-0.35	-0.49	-0.52	.28**	0.08	.38**	.22**	0.11	.33**	0.1	.64**	1						
15	RE3DM	-0.19	-0.29	-0.15	-0.29	-0.29	.20*	0	.32**	.28**	.38**	.26**	0.14	.48**	.43**	1					
16	DE2COS	.39**	.36**	.36**	.30**	.44**	-0.29	-0.04	-0.28	-0.15	-0.13	-0.24	-0.18	-0.42	-0.43	-0.32	1				
17	RE4IS	-0.28	-0.37	-0.3	-0.42	-0.46	.21*	.17*	.34**	0.16	0.15	.27**	.23**	.57**	.64**	.49**	-0.36	1			
18	SR4COS	-0.32	-0.31	-0.21	-0.18	-0.23	.22**	0.04	.33**	.27**	.40**	.25**	.23**	.30**	.25**	.32**	-0.19	.20*	1		
19	DE3DM	-0.16	-0.02	-0.1	.22**	0.01	.25**	0.05	.21*	0.08	-0.11	.17*	.28**	0.15	0.01	0.02	0.08	-0.02	0.11	1	
20	DE4IS	-0.04	0.03	0.01	.22**	0.15	0.15	0.03	-0.06	-0.05	-0.1	0.06	0.15	-0.05	-0.14	-0.03	0.08	-0.2	0.06	.35**	1
21	SC5S	0.13	.25**	0.13	.19*	.18*	-0.08	-0.03	-0.13	-0.08	0.03	-0.21	-0.16	-0.14	-0.12	-0.1	.35**	-0.01	0.04	0.05	0.05
22	PEX1S	.58**	.25**	.28**	0.14	.28**	-0.5	-0.02	-0.34	-0.26	-0.04	-0.21	-0.15	-0.31	-0.23	-0.13	.30**	-0.16	-0.25	-0.28	-0.04
23	PEX2PS	.25**	.60**	.31**	0.16	.43**	-0.26	-0.12	-0.33	-0.28	-0.2	-0.39	-0.23	-0.34	-0.31	-0.18	.34**	-0.38	-0.27	-0.06	0.04
24	PEX3COS	.39**	.38**	.47**	.23**	.49**	-0.3	-0.02	-0.38	-0.31	-0.05	-0.32	-0.22	-0.45	-0.38	-0.2	.40**	-0.3	-0.13	-0.21	0.1
25	PEX4IS	.32**	0.17	.24**	.42**	.38**	-0.19	0.09	-0.2	-0.11	0.01	-0.05	-0.02	-0.3	-0.49	-0.26	.35**	-0.35	0	-0.05	0.12
26	PDE1DM	.39**	.37**	.41**	.28**	.53**	-0.25	-0.04	-0.36	-0.31	-0.11	-0.28	-0.16	-0.4	-0.37	-0.19	.40**	-0.4	-0.16	-0.12	0.14
27	PSC1S	-0.56	-0.3	-0.35	-0.11	-0.34	.65**	-0.04	.36**	.30**	0.12	.21*	0.16	.36**	.22**	0.16	-0.24	.25**	.25**	.24**	0.03
28	PSR1PS	-0.05	-0.08	0.02	0.02	-0.1	0.02	.36**	0.03	-0.03	0.08	.22*	.22*	0.04	0.05	-0.04	0	0.1	0.03	0.1	-0.1
29	PSC2COS	-0.34	-0.33	-0.34	-0.18	-0.41	.32**	0.05	.56**	.40**	.25**	.31**	.25**	.53**	.42**	.40**	-0.29	.26**	.30**	0.15	0.03
30	PSR2IS	-0.25	-0.21	-0.25	-0.15	-0.3	.36**	0.06	.42**	.44**	.20*	.32**	.21*	.44**	.38**	.38**	-0.15	.21*	.18*	.23**	0.08
31	PSR3DM	-0.1	-0.24	-0.18	-0.1	-0.31	0.05	0.13	.26**	.18*	.33**	.17*	0.16	.23**	.32**	.31**	-0.2	.24**	.17*	0.1	-0.04
32	PRE1S	-0.2	-0.46	-0.34	-0.18	-0.33	.24**	.22**	.36**	.33**	0.13	.66**	.43**	.33**	.23**	0.15	-0.19	.28**	0.15	.25**	-0.01
33	PSC3PS	-0.13	-0.28	-0.26	-0.05	-0.2	.23**	0.12	.27**	0.05	0.04	.37**	.61**	.27**	0.11	0.12	-0.13	0.16	.19*	.34**	.21*
34	PRE2COS	-0.37	-0.33	-0.4	-0.23	-0.53	.38**	0.07	.48**	.31**	0.06	.31**	.28**	.60**	.48**	.29**	-0.29	.56**	.17*	.25**	-0.08
35	PSC4IS	-0.2	-0.2	-0.22	-0.31	-0.43	.20*	0.01	.27**	0.08	0.02	.19*	0.12	.48**	.69**	.39**	-0.39	.61**	0.14	0.09	-0.11
36	PRE3DM	-0.14	-0.25	-0.21	-0.17	-0.34	0.04	-0.02	.23**	.18*	.20*	0.15	0.14	.37**	.47**	.48**	-0.29	.49**	.31**	0.12	-0.1
37	PDE2COS	.25**	0.12	.20*	.25**	.36**	-0.14	-0.04	-0.27	-0.2	-0.06	-0.01	0.05	-0.26	-0.29	-0.12	.49**	-0.18	0.03	0	.18*
38	PRE4IS	-0.18	-0.2	-0.21	-0.37	-0.44	0.14	0.06	.26**	0.07	0.02	0.14	.18*	.45**	.58**	.33**	-0.24	.69**	0.11	0.06	-0.08
39	PSR4COS	-0.26	-0.3	-0.27	-0.14	-0.33	.18*	-0.02	.29**	.28**	.21*	0.16	.20*	.28**	.25**	.22**	-0.16	.21*	.48**	.17*	0.05
40	PDE3DM	-0.03	-0.1	-0.11	0.1	-0.02	0.1	0.01	0.12	0.13	.17*	.18*	0.16	.17*	0.04	.20*	0	0.06	.23**	.55**	.30**

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Table 4.3: Correlation matrix (continued)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
41	PDE4IS	-0.04	-0.14	-0.08	.18*	0.05	0.15	0.03	0.07	0.09	0.16	0.15	0.12	0.13	0.00	-0.03	0.03	-0.11	.20*	0.11	.43**
42	PSC5S	0.04	-0.01	-0.06	0.03	-0.1	0	0.02	0.08	0.07	0.14	0.12	0.01	0.04	0.04	0.03	0.11	0.05	-0.01	-0.10	-0.02
43	FTEGO1	.21*	.17*	.21*	.28**	0.12	-0.17	-0.02	-0.2	-0.06	0.12	-0.19	-0.05	-0.14	-0.21	-0.01	0.12	-0.12	0.02	-0.06	-0.04
44	FTEGO2	-0.32	-0.2	-0.32	-0.32	-0.3	.36**	0.02	.28**	0.09	0.05	0.16	0.08	.23**	.21*	.18*	-0.24	.22**	.23**	0.00	-0.04
45	FTEGO3	0.13	0.02	-0.03	.18*	0.02	0	-0.07	-0.11	-0.11	-0.05	-0.06	0.04	0.08	-0.02	-0.06	0.07	0.09	0.06	-0.02	-0.05
46	FTEGO4	-0.23	-0.19	-0.25	-0.22	-0.2	.28**	0.08	.19*	0.06	-0.03	0.10	0.11	.27**	0.09	0.06	-0.24	0.15	.23**	-0.02	0.05
47	ATGO1	.31**	.19*	.24**	.32**	.20*	-0.21	0.16	-0.24	-0.02	0.06	-0.2	-0.02	-0.18	-0.22	-0.2	.18*	-0.17	-0.16	-0.05	0.00
48	ATGO2	-0.38	-0.29	-0.31	-0.33	-0.32	.34**	0.11	.25**	0.11	.20*	.26**	.21*	.22**	.22**	.20*	-0.22	.21*	.43**	0.09	0.05
49	ATGO3	.22**	-0.01	0.05	0.07	0.09	-0.03	-0.03	-0.09	0.04	0.02	0.00	0.01	-0.06	-0.08	-0.08	.20*	-0.01	0.07	-0.05	0.05
50	ATGO4	-0.27	-0.17	-0.18	-0.14	-0.17	.23**	0.04	0.16	0.02	0.05	0.14	0.12	.24**	0.11	0.13	-0.16	0.10	.25**	0.07	0.02
51	TVAGO1	0.1	.18*	0.05	.20*	0.1	-0.03	-0.04	-0.11	0.07	0.00	-0.14	-0.02	-0.01	-0.06	-0.05	-0.04	-0.03	-0.08	-0.01	-0.02
52	TVAGO2	-0.39	-0.21	-0.21	-0.3	-0.24	.30**	0.09	.26**	.17*	.23**	.22**	0.16	.29**	.24**	.28**	-0.22	.17*	.42**	0.06	-0.01
53	TVAGO3	.18*	-0.06	0.07	0	0.03	-0.04	0.02	-0.15	0.03	0.09	0.00	0.00	-0.06	-0.08	-0.09	.17*	0.08	0	-0.12	-0.08
54	TVAGO4	-0.26	-0.19	-0.22	-0.18	-0.11	0.15	0.08	0.14	0.07	0.03	0.16	0.14	.18*	.17*	0.04	-0.17	0.11	.22**	0.03	0.02

		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
21	SC5S	1																			
22	PEX1S	.26**	1																		
23	PEX2PS	.20*	.38**	1																	
24	PEX3COS	.28**	.59**	.55**	1																
25	PEX4IS	.22**	.48**	.27**	.61**	1															
26	PDE1DM	.21*	.46**	.50**	.74**	.65**	1														
27	PSC1S	-0.15	-0.7	-0.33	-0.45	-0.39	-0.47	1													
28	PSR1PS	-0.11	-0.15	-0.17	-0.06	0.10	-0.07	.18*	1												
29	PSC2COS	-0.28	-0.51	-0.36	-0.57	-0.5	-0.54	.44**	0.04	1											
30	PSR2IS	-0.14	-0.35	-0.2	-0.38	-0.36	-0.35	.33**	0.01	.65**	1										
31	PSR3DM	-0.09	-0.22	-0.38	-0.37	-0.32	-0.45	.19*	.25**	.57**	.46**	1									
32	PRE1S	-0.21	-0.35	-0.46	-0.41	-0.21	-0.4	.34**	.28**	.36**	.37**	.33**	1								
33	PSC3PS	-0.22	-0.3	-0.32	-0.32	-0.12	-0.24	.33**	.31**	.37**	.25**	.22**	.46**	1							
34	PRE2COS	-0.11	-0.45	-0.37	-0.59	-0.5	-0.59	.54**	.17*	.60**	.53**	.38**	.54**	.35**	1						
35	PSC4IS	-0.12	-0.38	-0.32	-0.47	-0.6	-0.48	.33**	0.07	.47**	.37**	.41**	.29**	.22**	.62**	1					
36	PRE3DM	-0.08	-0.28	-0.35	-0.44	-0.42	-0.49	.28**	0.1	.44**	.36**	.55**	.33**	0.14	.49**	.59**	1				
37	PDE2COS	.18*	.31**	.31**	.51**	.56**	.55**	-0.23	0.06	-0.46	-0.31	-0.36	-0.26	-0.09	-0.44	-0.4	-0.31	1			
38	PRE4IS	-0.03	-0.3	-0.3	-0.45	-0.57	-0.49	.33**	0.05	.45**	.36**	.39**	.30**	.22**	.70**	.77**	.57**	-0.39	1		
39	PSR4COS	0.01	-0.33	-0.29	-0.34	-0.32	-0.39	.33**	0.04	.50**	.36**	.44**	.27**	.26**	.42**	.30**	.39**	-0.2	.40**	1	
40	PDE3DM	-0.03	-0.21	-0.10	-0.05	0.01	-0.04	.18*	0.09	0.14	0.16	0.03	.20*	.25**	0.11	0.07	0.15	0.08	0.07	.18*	1

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Table 4.3: Correlation matrix (continued)

		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	PDE4IS	0.12	0.13	0.05	0.16	.36**	.22**	0.02	-0.01	0.01	0.00	-0.08	-0.08	0.12	-0.15	-0.22	-0.12	.32**	-0.23	-0.05	.29**
42	PSCSS	.27**	0.15	0.06	0.08	0.15	0.06	-0.08	0.04	0.01	-0.01	0.08	-0.05	-0.10	0	0.02	-0.05	0.16	0	-0.08	-0.09
43	FTEGO1	0.11	0.07	0.13	.24**	0.16	0.15	-0.08	0.02	-0.07	0.07	0.03	-0.10	-0.18	-0.11	-0.08	0.01	0.10	-0.11	-0.01	0.02
44	FTEGO2	-0.11	-0.2	-0.08	-0.21	-0.16	-0.17	.32**	-0.04	0.10	0.13	-0.02	0.14	0.13	.24**	.18*	0.07	-0.05	.19*	.18*	0.04
45	FTEGO3	.35**	-0.02	0.01	0.04	0.14	-0.03	0.07	0.02	-0.14	-0.03	-0.09	-0.01	-0.07	0.11	0.08	0.06	0.12	0.09	-0.04	0.04
46	FTEGO4	-0.15	-0.16	-0.21	-0.17	-0.05	-0.07	.26**	-0.05	0.11	0.02	-0.08	0.04	.25**	0.13	0.11	-0.06	-0.06	0.13	.20*	0.00
47	ATGO1	-0.02	0.09	0.08	0.07	0.13	0.07	-0.10	0.10	-0.05	-0.06	-0.07	-0.14	-0.14	-0.10	-0.14	0.03	-0.02	-0.11	-0.10	-0.04
48	ATGO2	-0.05	-0.15	-0.12	-0.10	0.01	-0.03	.20*	0.00	0.04	0.12	0.03	.21*	0.16	0.15	0.09	0.05	0.06	0.12	.25**	0.15
49	ATGO3	.42**	18*	0.12	.20*	.24**	0.14	0.02	-0.01	-0.15	-0.07	0.03	0.07	-0.13	-0.04	-0.06	0.01	.21*	-0.01	0.00	-0.09
50	ATGO4	-0.06	-0.04	-0.08	-0.02	0.08	0.09	0.08	0.03	0.06	0.06	-0.03	0.10	.19*	0.08	0.02	-0.10	0.03	0.04	.19*	0.03
51	TVAGO1	-0.08	-0.11	0.06	-0.02	-0.01	0.01	0.11	-0.02	-0.01	0.06	-0.09	-0.09	-0.04	0.09	0.05	0.01	-0.03	-0.01	-0.09	-0.02
52	TVAGO2	-0.07	-0.17	-0.03	-0.11	0.00	-0.06	.23**	-0.02	.19*	.22**	0.13	0.08	.17*	0.12	0.15	0.08	-0.04	0.11	.25**	0.13
53	TVAGO3	.39**	0.12	-0.02	0.15	.20*	0.11	0.01	0.06	-0.2	-0.13	-0.08	0.07	-0.08	-0.06	-0.07	-0.07	0.16	-0.01	-0.09	-0.10
54	TVAGO4	0.03	0	-0.10	-0.06	0.01	0.05	0.02	0.02	0.04	0.06	0.01	0.12	.22*	0.00	0.04	-0.04	-0.07	0.03	.18*	0.02

		41	42	43	44	45	46	47	48	49	50	51	52	53	54
41	PDE4IS	1													
42	PSCSS	0.12	1												
43	FTEGO1	0.01	-0.04	1											
44	FTEGO2	-0.08	-0.05	-0.22	1										
45	FTEGO3	0.11	0.10	.29**	0.03	1									
46	FTEGO4	0.03	-0.09	-0.31	.59**	-0.07	1								
47	ATGO1	0.00	-0.10	.38**	-0.31	0.09	-0.35	1							
48	ATGO2	0.14	-0.04	-0.13	.68**	0.04	.46**	-0.38	1						
49	ATGO3	0.12	0.14	0.10	-0.06	.50**	-0.24	0.15	-0.10	1					
50	ATGO4	0.10	-0.08	-0.18	.43**	-0.02	.66**	-0.48	.63**	-0.24	1				
51	TVAGO1	-0.03	-0.03	.38**	-0.14	0.12	-0.12	.41**	-0.25	0.06	-0.26	1			
52	TVAGO2	0.09	-0.15	-0.10	.55**	-0.04	.39**	-0.26	.72**	-0.05	.52**	-0.21	1		
53	TVAGO3	0.01	.19*	0.10	-0.06	.47**	-0.12	0.07	-0.04	.72**	-0.15	0.11	-0.10	1	
54	TVAGO4	0.14	-0.10	-0.21	.35**	-0.08	.53**	-0.4	.51**	-0.18	.77**	-0.34	.54**	-0.16	1

** Pearson correlation is significant at the 0.01 level (2-tailed).
* Pearson correlation is significant at the 0.05 level (2-tailed).

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APPENDIX 5

Table 5.1: Discriminant validity table for the firm growth construct measures

Constructs	Turnover	Employment (FTE)	Assets
Turnover	0.79		
Employment (FTE)	0.67	0.82	
Assets	0.76	0.56	0.87

Table 5.2: Discriminant validity table for the Current and Initial firm life-cycle construct measures

Constructs	Existence (current)	Existence (initial)	Renewal (current)	Renewal (initial)	Success (current)	Success (initial)	Survival (current)	Survival (initial)
Existence (current)	0.72							
Existence (initial)	0.57	0.78						
Renewal (current)	0.64	0.46	0.76					
Renewal (initial)	0.46	0.66	0.67	0.79				
Success (current)	0.69	0.55	0.72	0.56	0.76			
Success (initial)	0.51	0.76	0.60	0.78	0.69	0.78		
Survival (current)	0.48	0.28	0.47	0.30	0.49	0.37	0.74	
Survival (initial)	0.36	0.53	0.45	0.65	0.49	0.68	0.48	0.78

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Table 5.3: Current firm life-cycle dimension factor loadings, reliability and validity

Indicator	Existence	Survival	Success	Renewal	~~Decline~~
Organisation size (small) – reversed	0.725	0.341	0.560	0.368	~~0.442~~
Power with founder – reversed	0.751	0.459	0.477	0.588	~~0.513~~
Simple organisational structure – reversed	0.775	0.326	0.468	0.453	~~0.546~~
Simple, word-of-mouth information systems – reversed	0.638	0.238	0.459	0.419	~~0.470~~
Information systems monitor and facilitate	0.429	0.761	0.501	0.382	~~0.212~~
Decisions made by small group	0.245	0.707	0.189	0.294	~~0.228~~
Specialised organisational roles	0.357	0.749	0.348	0.350	~~0.248~~
Organisation size (larger than competitors)	0.556	0.290	0.714	0.379	~~0.357~~
Functional, formal structure	0.515	0.552	0.805	0.539	~~0.369~~
Sophisticated information systems for profit making	0.509	0.267	0.755	0.687	~~0.566~~
Widely dispersed organisation	0.557	0.367	0.463	0.654	~~0.342~~
Sophisticated organisational structure	0.561	0.340	0.700	0.862	~~0.546~~
Team orientated decision making	0.317	0.427	0.426	0.714	~~0.352~~
Complex information system (coordination, servicing)	0.468	0.228	0.538	0.777	~~0.488~~
~~Centralised and simple decision making – reversed~~	~~0.653~~	~~0.304~~	~~0.523~~	~~0.537~~	~~0.878~~
~~Centralised organisational structure – reversed~~	~~0.488~~	~~0.209~~	~~0.445~~	~~0.447~~	~~0.814~~
Cronbach's Alpha	0.696	0.592	0.632	0.745	~~0.438*~~
Composite Reliability	0.814	0.783	0.802	0.840	~~0.835~~
AVE	0.524	0.547	0.576	0.571	~~0.716~~

* Significant ($p<0.01$) Spearman's correlation coefficient displayed instead of Cronbach's Alpha, as the measure only consists of two indicators.

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Table 5.4: Initial firm life-cycle dimension factor loadings, reliability and validity indicators

Indicator	Existence	Survival	Success	Renewal	~~Decline~~
Organisation size (small) – reversed	0.778	0.383	0.662	0.440	~~0.451~~
Power with founder – reversed	0.673	0.370	0.428	0.459	~~0.474~~
Simple organisational structure – reversed	0.893	0.464	0.633	0.605	~~0.722~~
Simple, word-of-mouth information systems – reversed	0.774	0.424	0.641	0.557	~~0.688~~
Information systems monitor and facilitate	0.418	0.783	0.587	0.525	~~0.375~~
Decisions made by small group	0.411	0.815	0.515	0.525	~~0.442~~
Specialised organisational roles	0.409	0.753	0.487	0.475	~~0.349~~
Organisation size (larger than competitors)	0.592	0.360	0.720	0.479	~~0.411~~
Functional, formal structure	0.622	0.732	0.838	0.596	~~0.571~~
Sophisticated information systems for profit making	0.571	0.459	0.781	0.738	~~0.506~~
Widely dispersed organisation	0.448	0.423	0.422	0.652	~~0.384~~
Sophisticated organisational structure	0.619	0.568	0.755	0.885	~~0.594~~
Team orientated decision making	0.481	0.559	0.568	0.757	~~0.469~~
Complex information system (coordination, servicing)	0.526	0.487	0.666	0.838	~~0.504~~
~~Centralised and simple decision making – reversed~~	~~0.759~~	~~0.489~~	~~0.636~~	~~0.630~~	~~0.912~~
~~Centralised organisational structure – reversed~~	~~0.549~~	~~0.372~~	~~0.474~~	~~0.452~~	~~0.845~~
Cronbach's Alpha	0.786	0.686	0.680	0.791	~~0.498*~~
Composite Reliability	0.863	0.827	0.824	0.866	~~0.871~~
AVE	0.614	0.615	0.610	0.621	~~0.772~~

* Significant ($p<0.01$) Spearman's correlation coefficient displayed instead of Cronbach's Alpha, as the measure only consists of two indicators.

Table 5.5: Growth factor loadings, reliability and validity indicators

Indicator	Assets	FTE	Annual Turnover	Growth
Slow turnover growth – reversed	0.714	0.430	0.445	0.614
Turnover growth faster than competition	0.845	0.597	0.679	0.815
Very fast turnover growth	0.881	0.588	0.714	0.831
Slow employment growth – reversed	0.261	0.533	0.264	0.393
Employment growth faster than competition	0.589	0.848	0.486	0.725
Very fast employment growth	0.611	0.877	0.496	0.741
Slow asset growth – reversed	0.357	0.228	0.559	0.427
Asset growth faster than competition	0.633	0.495	0.821	0.739
Very fast asset growth	0.696	0.498	0.867	0.774
Cronbach's Alpha	0.631	0.643	0.748	0.853
Composite Reliability	0.800	0.806	0.856	0.886
Loading onto second-order construct	0.931	0.834	0.875	-
AVE	0.580	0.590	0.667	0.766*

*AVE value for the second-order construct calculated based on the loadings of the first-order constructs onto the second-order construct (Götz et al. 2010).

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ENTREPRENEUR OPTIMISM AND THE NEW VENTURE CREATION PROCESS

Mr Neil James
Australian Centre for Entrepreneurship Research, QUT Business School,
Queensland University of Technology, Brisbane, Australia
Email: rn.james@qut.edu.au
Dr Amanda Gudmundsson
QUTGraduate School of Business, QUT Business School,
Queensland University of Technology, Brisbane, Australia
Email: a.gudmundsson@qut.edu.au

ABSTRACT

By integrating two theoretical approaches to entrepreneurship research, the psychology of the entrepreneur and the entrepreneurship process, this paper proposes a new conceptual model examining entrepreneur behaviour and emotion across the new venture development process. Existing macro level research on the new venture creation process recognises the entrepreneur as a central agent in the process yet generally avoids, at each stage of the process, an examination of the micro level psychological experiences of the individual entrepreneur. Similarly, behavioural research examining entrepreneur individual differences has neglected to systematically explore the emotion and behaviour of the entrepreneur across the cycle of the new venture creation process. We propose a conceptual framework that integrates the exploitation phase of the new venture creation process with the psychological capital element of optimism and behaviour of the individual entrepreneur. Propositions for future research to facilitate deeper insight into the impact of entrepreneur behaviour and emotion on the new venture creation process and ultimately the success or failure of the new venture are offered.

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INTRODUCTION

The failure rate of new ventures is reportedly as high as 55% (Knaup, 2005). Regrettably the extent of such failure is contrary to the importance and contribution that entrepreneurial activity has to the economic well being of society. Successful new ventures have been directly linked to 19% of economic growth (GEM, 2008), as well as being associated with indirect value chain influences such as the creation of employment. Accordingly, it is paramount that research attention focuses on exploring realistic ways to redress the failure rate of new ventures. Previous research has demonstrated that new ventures have a low rate of success because of the quality of the start-ups, the ability of the venture to meet realistic or sustainable growth objectives, and an inability to generate profits over a sustained period of time (Davidsson, Steffens, Gordon & Reynolds, 2008).

Arguably the new venture creation process is a complex interplay between the environment, the individual founder, the organisation, and the process adopted (Gartner, 1985). Nevertheless, within the context of such complexity, entrepreneurship theory and research has generally found that there is a close interconnection between the role of the founder or individual entrepreneur and the new venture's success or failure (Davidsson, et al., 2008). The scholarly field of entrepreneurship is an examination of "how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited" (Shane and Venkataraman, 2000, p. 218). Importantly, this definition indicates that the field of entrepreneurship includes both an analysis of the entrepreneurial process as well as an analysis of the individuals who are enacting that process. However, theoretical models at present explore these important concepts separately. The current paper offers an integration of the entrepreneurial process with the emotions and behaviours of the individual entrepreneur, particularly in regard to the psychological element of over optimism.

The purpose of this paper is to establish a conceptual model to derive a set of research propositions examining the impact of the behaviour and emotion of the individual entrepreneur across the five stages of the exploitation phase of the new venture creation process. Shepherd (2011, p412) supports that a 'deeper understanding of the

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entrepreneurial phenomenon' would come from more investigation on the interplay between individual difference and decision making in an entrepreneurial context.

Although we recognise that there are a number of perspectives on the new venture creation process, we have anchored our conceptual model using the holistic macro perspective that has been captured in Shane and Venkataraman's (2000) framework. This framework incorporates the elements of opportunity discovery, evaluation and exploitation to explain and predict the new venture creation phenomenon. Given that our focus is on the exploitation phase we have added granularity to the exploitation phase by incorporating stages theory into the model. Specifically we have adopted the approach used by Cardon et al. (2005) using the human lifecycle as the metaphor.

In contrast to the macro process model, examining entrepreneurship from a micro perspective provides explanations of entrepreneurial behaviour such as risk taking, focus intensity, and decision making through the lens of individual differences such optimism. This paper proposes an integrative conceptual model that draws together these two important foundations of entrepreneurship research. Specifically, the paper combines Shane and Venkataraman's conceptual framework of the new venture creation process, focusing on the exploitation phase, with the individual differences surrounding the emotion and behaviour of the entrepreneur. In this paper entrepreneurial behaviour is anchored in the broader domain of positive psychology and the specific elements of Luthans, Youssef and Avolio's (2007) psychological capital model incorporating the elements of efficacy, hope, resilience and optimism.

Defining the new venture creation process

"A new venture is the end result of the process of creating and organizing a new business that develops, produces, and markets products or services to satisfy unmet market needs for the purposes of profit and growth" (Chrisman, Bauerschmidt, & Hofer, 1998, p.6), with founders being the individual participants directly attributable to the formation of the

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venture. Moreover, a new venture is often considered to be new until it reaches the stage described in many new venture lifecycle models as maturity (Chrisman, et al., 1999).

The process of new venture creation

Shane and Venkataraman (2000) proposed a model of entrepreneurship that identifies three distinct processes: the existence and discovery of entrepreneurial opportunities; the decision to exploit entrepreneurial opportunities; and modes of exploitation. Fundamentally they argued that in order to have entrepreneurship, opportunities needed to exist and be recognised or discovered. Once discovered, an explicit decision to develop the opportunity needs to occur, recognising that there are varying ways in which opportunity development can be enacted.

The establishment and development of new ventures is dynamic and non linear. Whilst Shane and Venkataraman's conceptual model suggest three distinct processes, the reality of new ventures is that these stages are intertwined and are often overlapping and occur in different sequences in the process as the opportunity and new venture develops.

Importantly our focus is on the exploitation phase, thereby concentrating on the execution aspects of the new venture as opposed to opportunity discovery and analysis. Stage theory has been used extensively in the literature to consider the distinct stages that ventures go through when they are growing and developing. Levie and Lichtenstein (2010) have identified 104 different stages models. They concluded that the only constant across all models is that "businesses tend to operate in some definable state for some period time" (Levie & Lictenstein, 2010, p330).

Despite this viewpoint, we believe, that in respect to our research, stages theory provides a way of identifying distinct stages that these ventures move through during the exploitation phase, that may impact the level of optimism being displayed.

In reality there is a triangulation between the opportunity, the various resources that may be required and the team to make it happen. These distinct aspects demand that an

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entrepreneur is sufficiently capable of maintaining and adopting a sufficient and appropriate level of management and focus on all three. Similarly, Shane and Venkataraman's conceptual framework focusing on entrepreneurship as a process maintains the entrepreneur as a central agent in the process through the discovery or recognition of the opportunity, the decision to exploit and develop the opportunity, and the ways in which the opportunity is able to be exploited. To be an entrepreneur requires an individual to take action (McMullin&Shepherd, 2006), to ensure that an opportunity recognised is acted upon to bring the business opportunity to some conclusion. Action requires individual intervention, thereby further emphasising the integration of the potential impact of the emotion and behaviour of the entrepreneur. Further support for the integration between individual difference and decision making in an entrepreneurial context, particularly around individual tasks and actions has been provided by Shepherd (2011). This has been further examined by Cardon et al. (2005) where the relational nature of entrepreneurship was further examined using a "parenthood metaphor" (p.23).

The following table adapted from Cardon et al. (2005) summarises the nature of each stage.

Stage	*Description*
Conception & Gestation	Serious commitment to developing the venture Resource acquisition to support the venture development Activities related to the startup of the venture
Infancy & Toddlerhood	High dependence of the venture on the entrepreneur Initial revenue generating activities start to occur, yet market penetration not strongly realized
Childhood & Adolescence	Increasing independence of the business given more human capital is being added to support its growth and development More consistent revenue earning activity is occurring, with the venture beginning to become profitable. Requirement for more complexity as regards systems and processes leading to a developing of the ventures culture.
Maturity	Transition to professional managers albeit that the entrepreneurial founders are still involved. Consistent profitability with growth occurring. Realistic market share being achieved demonstrating the 'coming of age' of the venture.
Exit	Entrepreneurial exit. This could be either positive, in terms of value accretive exit by way of trade sale or similar, or negative by way of liquidation through poor performance.

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Given that it is likely that the positive psychology of an entrepreneur is generally considered to be dynamic, examining optimism at varying defined stages of a ventures exploitation phase is likely to be more appropriate and relevant. Therefore we have broken the exploitation phase into five stages, namely: conception & gestation, infancy & toddlerhood, childhood & adolescence, maturity, and exit.

The emotion and behaviour of the entrepreneur

In entrepreneurship research the impact that the founder, or entrepreneur, has on the new venture creation process cannot be understated. The reality of many new ventures is that the performance of the venture is closely linked to the behaviour of the founder because of the strong emotional and behavioural bond between the founder and their venture (Coelho, De Meza, & Reyniers, 2004). The significance of the emotion of the individual entrepreneur is persuasively acknowledged in Cardon, Wincent, Singh and Drnovsek's (2009) recent conceptual paper. The authors have claimed that research attention must be directed towards understanding the passion of the entrepreneur to facilitate a deeper understanding of the nature of the relationship between the entrepreneur and the success of the new venture. Cardon et al.'s proposed focus on exploring the emotion of the founder resonates with previous research which has demonstrated that founder motivation for starting new ventures is more closely aligned with non-monetary rewards (Alstete, 2008), and that entrepreneurs are passionate about their business pursuit. Such a strong emotional foundation for the individual embarking on an entrepreneurial journey further personalises the relationship between the new venture and the founder and suggests that to fully understand the success or failure of a new venture the behaviour and emotion of the individual entrepreneur needs to be analysed.

The decision to explore and exploit an opportunity may be classified based on the 'amount of uncertainty perceived' (Shepherd, 2006, p.136) by the founder and the degree to which the founder, as an individual, is prepared to take on the risk involved. Indeed, it is the perception by the individual that may provide the catalyst to pursue an opportunity.

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The importance of examining the emotion of the new venture founder has been articulated in both conceptual and empirical entrepreneurship research (e.g., Cardon et al., 2009, Hmieleski & Baron, 2009). Theoretically, emotion based explanations have been used to reason why new venture founders display behaviours such as unconventional risk taking, extreme focus intensity, and an unwavering belief in his or her dream (Cardon et al., 2009). Positive emotional states such as optimism, hope and resiliency have been reported in empirical research of successful leaders of high-technology new ventures (Peterson, Walumbwa, Byron, & Myrowitz, 2009). The pursuit of a new venture despite potentially daunting obstacles is suggested by Hmieleski and Baron (2009) as being the result of the individual entrepreneur being high in dispositional optimism. Indeed previous empirical evidence has found that dispositional optimism is a defining characteristic of entrepreneurs involved in founding new ventures(Cooper, Woo, & Dunkelberg, 1988).

However, the generally perceived positive emotions of passion and high levels of dispositional optimism within the entrepreneur create a tension that is potentially both a benefit and also a burden for entrepreneurial success. Excessive levels of optimism may lead to a negative impact on new venture success. Scholars have argued that simply possessing a great passion for a new venture and having dispositional optimism does not guarantee new venture success (Crane & Crane, 2007). Indeed, empirical research has found that entrepreneurs have expressed high levels of optimism irrespective of their preparedness to lead the venture (Cooper, et al., 1988). Hmieleski and Baron's (2009) recent research, adopting a social cognitive perspective, found that entrepreneur optimism negatively impacted on new venture performance. Hmieleski and Baron have thus recommended that more research attention needs to be directed towards exploring the influence of individual entrepreneur emotional states, such as optimism, on new venture performance.

The psychological capital model

The emergent field of positive psychology is contributing to the development of knowledge relevant to positive emotional states such as optimism, recognising that such

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elements within the individual can enhance organisational performance (Quick, Cooper, Gibbs, Little, & Nelson, 2010). Luthans, Youssef, and Avolio (2007) have consolidated and extended the theorising developed in the early positive psychology movement and proffered a Psychological Capital (PsyCap) model. The model is an integrated conceptual framework used to explain individual psychological capital and workplace return on investment outcomes such as efficiency (e.g., return on investment) and effectiveness (e.g., growth). Within the PsyCap model optimism is recognised as a psychological capacity, together with the psychological capacities of efficacy, hope and resilience. We contend that this model is of value for exploring the nature of entrepreneurial emotion and behaviour across the new venture creation process as it is an empirically validated framework which incorporates standardised measurement of the psychological capacities.

The PsyCap model of Luthans et al. (2007) thus provides the current study with a model that can examine the impact of entrepreneurial optimism and other emotional and behavioural elements such as efficacy, resilience and hope across the new venture creation process. As explored previously, the challenge with entrepreneur emotions and behaviour is that when a negative event occurs, the response may be emotionally based and related to their dream pursuit or passion (Cardon et al. 2009), rather than a rational decision based on objective analysis of the evidence. The emotionally based decision potentially further compounds the situation or problem being faced.

Entrepreneur optimism

Given that new ventures often emerge in new or previously unexplored markets, developing new products and technologies that may not have historical bases from which to found decisions (Coelho et al., 2004, Ottesen&Gronhaug, 2006), positive emotional states such as optimism may provide the new venture founder with the necessary expectation of achieving desirable outcomes (Carver &Scheier, 2005). Entrepreneurs have reportedly demonstrated a greater tendency towards excessive optimism in comparison with non-entrepreneurs (Ucbasaran, Westhead, Wright, & Flores, 2010). Therefore, positive psychological emotions such as optimism may be critical in providing

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the motivating behaviour to enable the individual entrepreneur to persist through the opportunity discovery, evaluation and in particular the exploitation phases of the new venture process. In addition to optimism, Peterson, Walumbwa, Bryon and Myrowitz (2009) demonstrated that resiliency and hope were also important in new venture businesses. Peterson et al.'s study of 121 technology firms reported a positive predictive relationship between CEO optimism, resiliency and hope and subordinate ratings of transformational leaders. Moreover these transformational leaders had a stronger and more positive effect on the performance of start-up organisations in comparison to established firms.

However, there also appears to be a potential downside to an excessive level of entrepreneurial optimism. Excessive optimism in the entrepreneur has been suggested by some scholars as the primary reason for the high incidence of new venture failure (Gartner, 2005). The challenge with excessive optimism is that it may contribute to poor or irrational decision making (Palich & Dagby, 1995). Many new venture founders have a lack of experience or contextual information regarding both the venture and the market in which it may operate. Excessive optimism may accordingly permit the development of ineffective behaviours such as 'unchecked fantasising' (Coelho et al., 2004, p.397). Decisions and actions may be made or taken without reference to a clear perspective or an understanding of reality. This can negatively impact on new ventures in a number of ways and may include difficulty in securing financial support or the necessary physical and human resources to ensure venture success.

From a financing perspective Landier and Thesmar (2005, p.1) suggest that "optimists self-select into short term debt whilst those with a more realist orientation self-select long term debt". The excessive optimism of new venture founders may therefore contribute to the loss of appetite by new venture sector financiers, and could have significant implications for future economic growth. The findings of research by Puri and Robinson (2007) support the hesitance of the financial sector, with the extreme optimists in their study displaying financial habits that were not considered prudent. Furthermore it seems that over optimists may also have short term planning horizons (Puri & Robinson, 2007) indicating a potential focus on immediacy rather than the 'big picture'. As much as this

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may impact strategy and decision making, it also has potential significance in respect of new venture funding requirements. Given that the funding provided by way of venture capitalists is extremely limited, the ability to encourage and provide more effective confidence to financiers is critically important. Palich and Bagby (1995) found that excessive optimism by entrepreneurs lead to an underestimation of the riskiness of their venture. Once again these findings support the need for more research investigating the notion of excessive optimistic behaviour in entrepreneurs.

Theoretically, optimism has been described and assessed in a number of ways including links to mood and morale, tenacity and perseverance, effective problem solving, personal and business success (Luthans, 2002; Peterson, 2000; Seligman, 2006). Using Seligman's explanatory style definition, an optimist is defined as someone who expects positive and desirable events in the future, as opposed to a pessimist who constantly has negative thoughts and expects undesirable things to happen. Psychological research further asserts that optimism exists on a continuum, and thus different levels of optimism may be observed. Interestingly, although differences may exist in optimism levels, the boundary between what is realistic and what is excessive in optimism is still unclear (Schneider, 2001). Seligman has also argued previously of the ability of pessimists to make more objective decisions.

Optimism is argued to have both state and trait aspects (Kluemper, Little & DeGroot, 2009). Trait optimism refers to stable individual levels of optimism that are generally exhibited, whereas state based optimism is that which is influenced by contextual or situational factors. The recognition that optimism has state characteristics is important, as potentially negative influences through excessive optimism may be managed and reduced (Seligman, 2006). Therefore, if excessive optimism is identified in entrepreneurs then intervention programs can be designed to facilitate the development of realistic levels of optimism within these new venture founders.

Given the likelihood of new venture failure, it is clear that entrepreneurs or new venture founders initially need to have an optimistic perspective to direct and maintain their motivation (Lowe & Ziedonis, 2006). However, there is perhaps a difference between a

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level of optimism that is appropriate to motivate and direct entrepreneurial effort and a level of optimism fuelled by the founder's passion for his or her venture which could be considered excessive and contribute to poor business decisions. In short, we suggest that realistic optimism may have positive consequences for the new venture creation process and ultimately improve the chance of new venture success, whereas excessive optimism may be linked to excessive risk taking and poor decision making and thus may have the opposite effect on the new venture outcome and negatively impact new venture success.

The proposed conceptual model

As previously contended, we have used the three stages of the new venture creation process by Shane and Venkataraman (2000) as a macro explanation of the distinct elements of the entrepreneurial process. Given the focus on exploitation we have further broken the model down based on the stages proposed by Cardon et al. (2010). Although it can be argued that the stages are not necessarily linear, new ventures do have a life cycle that can be distinguished by differing characteristics and tasks within the cycle. We contend that effectiveness across the new venture process will be enhanced if the entrepreneur is able to invest the appropriate psychological capital at each stage of the new venture process. The psychological capital model is thus integrated with the entrepreneurial process model to assist in the generation of specific propositions for future empirical examination.

We assert in this paper that relationships exist between the identified psychological capital elements of efficacy, hope, optimism, and resilience across the stages of the entrepreneurial new venture creation process. The four psychological resources presented in the psychological capital model originated with different theoretical perspectives and definitions yet encompass an empirically validated common positive psychological construct (Luthans et al., 2007). Summarily the psychological capital model measures, efficacy or the confidence that an individual has about his or her ability to successfully execute a task in a given context, hope which is a motivational state based on a perceived sense of success, optimism which, as defined previously, is the expectation that the

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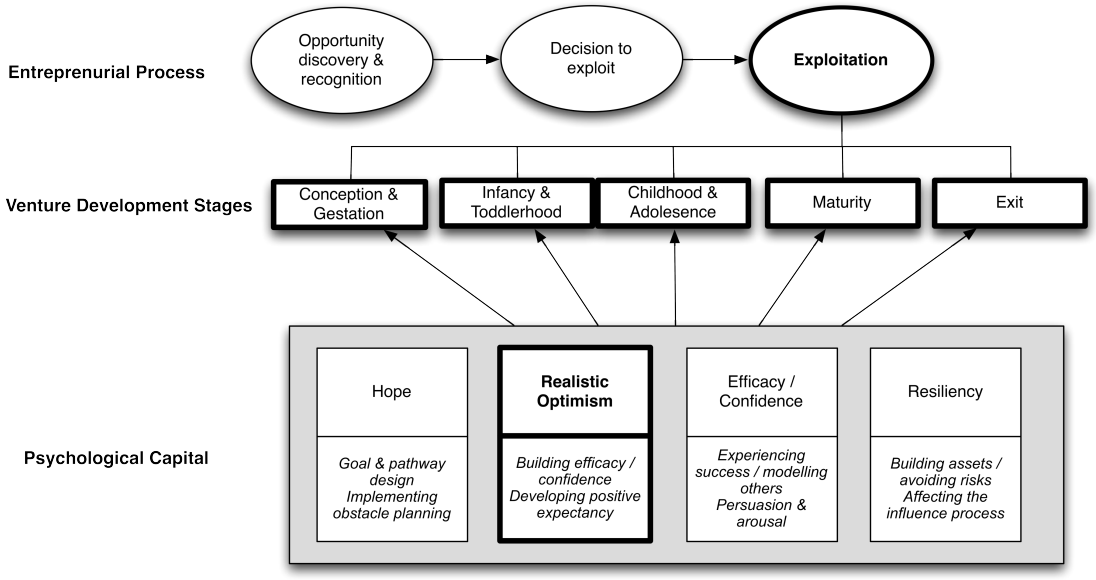
individual will incur positive desirable future events, and resiliency or the ability of an individual to rebound from adversity or failure (Avey, Luthans & Youssef, 2010). The proposed relationships between the elements of the psychological capital construct and the entrepreneurial process stages are represented in the following diagram.



"Entrepreneurship is a dynamic process of vision, change and creation. It requires the application of energy and passion towards the creation and implementation of ideas and creative solutions. Essential ingredients include the willingness to take calculated risks…the ability to formulate an effective venture team; the creative skill to marshal needed resources; the fundamental skill of building a solid business plan; and finally the vision to recognize opportunity where others see chaos, contradiction and confusion" (Kuratko & Hodgetts, 2004, pg. 30). The next section of the paper will draw upon previous research findings from investigations examining the emotion and behaviour of entrepreneurs across the three dominant stages of the entrepreneurial process. Unfortunately much of the previous research is cross-sectional in nature and therefore the stage of the venture during which the data were collected is largely unknown.

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Opportunity exploitation

The first stage of the new venture creation process requires that there is recognition that an entrepreneurial opportunity exists. Such recognition as argued by Shane and Venkataraman (2000) is a subjective process, as the variety of options and the potential consequences of exploiting those options are unknown. Moreover, Shane and Venkataraman further contend that people make decisions "on the basis of hunches, intuition, heuristics, and accurate and inaccurate information" (p. 221). While there is little argument that people (i.e., entrepreneurs) make decisions on the basis of many reasons, decision making is not a completely rational and cognitive process, with some authors suggesting that rational decisions afford a bad basis for action and that some irrationalities are necessary (Brunsson, 1982).

A comprehensive meta-analysis of the relationship between personality to entrepreneurial intention recently conducted by Zhao, Siebert, and Lumpkin (2010) identified that risk propensity was moderately related to entrepreneurial intention although it was not significantly related to entrepreneurial performance. The authors have suggested that their findings demonstrate that risk propensity may vary across the stages of entrepreneurship and that it is more likely to be evident during the early stage of the entrepreneurship process. Such results provide additional support for the contention of this paper that more research on the impact of individual entrepreneur emotions and behaviours is necessary across the different stages of the new venture creation process.

The emotional resources called upon by the entrepreneurs to make decisions surrounding the opportunity or discovery may well be facilitated and fuelled by the entrepreneurs' hope, efficacy and optimism. The previous review of entrepreneurial optimism has demonstrated that entrepreneurs are higher in excessive optimism than non-entrepreneurs (Ucbasaran et al., 2010), have greater levels of dispositional optimism in comparison with others (Hmiesleki& Baron, 2009), and are more likely to report being prepared for the new venture challenge (Cooper et al., 1988). Other characteristics such as self-efficacy have also demonstrated to be significant predictors (r=.378) of entrepreneurial behaviour (Rauch & Frese, 2007), while hope is suggested by Morrow (2006) as a characteristic that

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if developed in entrepreneurs will assist in achieving greater entrepreneurial success.

After seizing upon an opportunity, the entrepreneur needs to then determine whether the opportunity is worthwhile in pursuing. Although figures on the number of opportunities that are discovered and the number of those discovered opportunities that are attempted to be realised are not known, it is reasonable to presume that a great many ideas and innovations are not progressed further. The evaluation of an entrepreneurial opportunity and the decision to attempt to exploit a discovered opportunity is suggested by Shane and Venkataraman (2000, p. 222) to be a function of the "joint characteristic of the opportunity and the nature of the individual". The authors argue that in addition the nature of the venture and the ability to raise capital, individuals who are optimistic, have greater self-efficacy, stronger internal locus of control, greater tolerance for ambiguity, and a more dominant need for achievement are more likely than other members of society to make the decision to exploit the opportunity.

Proposition 1: Psychological capital elements, such as passion, hope, and efficacy influence the level of optimism displayed by entrepreneurs, at the conception and gestation phase of exploitation, therefore positively impacting on the likelihood of moving to the next phase of the new venture process.

In contrast to the above perspective and offering a challenge to the levels of optimism in entrepreneurs, a recent article in Strategic Directions (2010) suggests that many new ventures have faltered during the early stage of creation because the venture was the "brainchild" (p. 7) of an excessively optimistic individual entrepreneur who neglected attention to detail, had no contingency plan or did not recognise the need for caution. The findings reported in Hmiesleki and Baron's (2009) paper also suggest that entrepreneurial optimism can have a negative impact on new venture success. When generating examples of behaviour to illustrate their conceptual model, Luthans et al., (2006) have also suggested that future research on entrepreneurial hope, efficacy and optimism could clarify whether there is the possibility of "too much a good thing" (p. 80).

Proposition 2:If the individual entrepreneur displays excessive optimism at the early stages (conception and gestation phase, infancy and toddlerhood) of new venture

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exploitation, then the chance of the new venture moving to the next stage of the development process is decreased.

Shane and Venkataraman (2000) hastened to add in their paper that the individual attributes which were suggested as increasing the likelihood that an entrepreneur would attempt to realise an opportunity did not logically increase the probability of the new venture being a success. In contrast, as an example, they suggested that excessive optimism "might be associated with a higher probability of both exploitation and failure" (p. 224). Indeed a recent study indicates that even practiced entrepreneurs who have experienced a failed venture, although tempered in their level of comparative optimism (i.e., excessive optimism) they were still optimistic about the new venture. The research also reported that the way in which comparative optimism influenced experienced entrepreneurs very much depended upon the nature of the past experiences, to the extent that those who had no experienced business failure were still "more likely than novice (or first time) entrepreneurs to report comparative optimism" (Ucbasaran et al., 2010, p. 2).

Proposition3: If the individual entrepreneur displays excessive optimism at the childhood and adolescence stage of new venture exploitation, then the chance of the new venture successfully moving to maturity is decreased.

The final stage of the entrepreneurial process as suggested by Shane and Venkataraman (2000) is the organisation of the new venture into the economy. Two dominant institutional arrangements are suggested, i.e., new firm creation or the sale of the opportunity into an existing firm. Research evidence for the impact of the individual entrepreneur emotion and behaviour during this stage is limited, with the focus of research examining the ability of the individual to secure financing, first mover advantages, and barriers to entry and so forth. However, we argue that at this stage of the entrepreneurial process that the emotion and behaviour of the individual entrepreneur will continue to impact of the success or otherwise of the new venture. At this stage of the new venture creation process, we expect that hope, realistic optimism, efficacy and resiliency are needed.

In an examination of the self-efficacy and optimism of a small sample of Australian

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entrepreneurs, Trevelyan (2008) found that the concepts of optimism and self-efficacy were distinctive. The author reported that both self-efficacy and optimism were required during the early phases of the new venture when the individual was deciding upon becoming an entrepreneur, but that over confidence (i.e., high levels of self-efficacy) was harmful during the decision making phase of the new venture. Trevelyan concluded that what is needed in future research is a clarification of when during the entrepreneurial process is optimism beneficial and when is excessive self-efficacy harmful.

Some studies have demonstrated that entrepreneurial optimism may reduce over time or with experience. For example, based on an economic modelling approach applied to data collected through the British Social Attitudes Survey, Fraser and Greene (2006) identified that in comparison to employees entrepreneurs where more optimistic and had greater belief in their ability (i.e., self-efficacy) although the level of optimism diminished with experience of new business establishment. The authors suggest that the results provide evidence to improve the education process for nascent entrepreneurs to assist in them with a more accurate forecast of future business performance. In another economically founded paper, de Meza and Southey (1996) found that optimists were more likely than pessimists to pursue financing their business venture. Not only does excessive optimism impact negatively on the new venture (Hmiesleki& Baron, 2009), Trevelayn (2006) argues that in the final phase of the new venture when formal systems and structures are required to be put in place, an entrepreneur high in self-efficacy may find an "inability to let go, as the overconfident entrepreneur does not believe anybody else can perform as well as him/herself" (p. 996).

Proposition 4: If the psychological capital element of realistic optimism is present in the individual entrepreneur at the maturity phase, then the chance of the new venture surviving is improved.

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CONCLUSION

The position taken in this paper is that excessive entrepreneurial optimism can potentially be shaped and influenced. Indeed, in order to achieve objectives such as effective capital raising and the like, optimism may need to be managed so that it is reflected at appropriate levels. Psychological capital provides an integrated framework to consider the broader human capital elements in which optimism is anchored. The other psychosocial capital elements, hope, self-efficacy and resiliency may mean in reality, it is difficult to separate the specific role that varying levels of optimism play in the venture creation process.

The need to manage and identify moderators of excessive optimism has not previously been an area of focus in the entrepreneurship field (D'Intino et al., 2007, Crane & Crane, 2007). Although recent empirical evidence by Hmiesleki and Baron (2009) and theoretical work by Cardon et al. (2009) has identified the importance of this area of enquiry, suggesting that excessive optimism may be linked to the difficulty of generating new venture success. The evidence indicates that whilst positive entrepreneurial states like passion and optimism have contributory value to the success and development of new ventures, a lack of moderators to regulate the negative consequences of irrational decision making can mean that the new venture struggles to meet its performance objectives.

Consequently there is a fundamental gap that exists in the empirical research examined with respect to the impact of excessive entrepreneurial optimism across the new venture process. Given that optimism has state based characteristics it is plausible to suggest that the entrepreneur may experience varying levels of optimism across the life cycle of the new venture, thus longitudinal based research is warranted. The ability to both generate a better understanding of entrepreneurial optimism and to provide techniques and tools that assist with the management of optimism could have a significant economic and social impact through the extended survival rate and growth of new ventures. The model proposed in the current paper will also help advance the empirical and theoretical work currently being conducted on the impact of excessive optimism of entrepreneurs on new venture performance.

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Entrepreneurial activity and new ventures are known to make an important contribution to the overall economic well-being of a society both in terms of the direct financial impacts as well as indirect and other downstream benefits. The entrepreneurial process is a complex interplay between the nature of the new venture, the creation process and the emotions, behaviour and skill of the new venture founder or entrepreneur. The current paper has proposed a conceptual model to integrate the macro level processes occurring across the life cycle of the new venture creation process with the micro level individual differences evident in the emotions and behaviours of entrepreneurs. The propositions offered are designed to provide the impetus for empirical examination to enable a deeper understanding and greater insight to be developed regarding the important yet complex phenomenon of entrepreneurship.

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BUSINESS PERCEIVED SUCCESS AND GROWTH INTENTIONS

Louis Geneste and Paull Weber
School Of Management, Curtin Business School, Curtin University,
Perth, Australia
Contact: Louis Geneste, School of Management, Curtin Business School, Curtin University,
GPO Box U1987, 6845 Perth, Australia, (T) 08 9266 7987, (F) 08 9266 7897,
Email: L.Geneste@curtin.edu.au

ABSTRACT

This aim of this paper is to examine the relationship between the small business owner's intent to grow their business and their self-perception of success. A considerable body of research has looked at business growth as a measure of small business success but this approach ignores the possibility that small business owners consider themselves as successful despite not wishing to grow their firm. Many small business operators choose not to pursue growth opportunities for fear of losing control and losing the firm's "small business" atmosphere. Some business owners do not expand their business due to lifestyle and family choices. It is possible there are business owners that consider themselves successful despite not seeking the expansion of their firm. Conversely, business owners intent on achieving business growth might consider themselves as unsuccessful if the growth is slower than expected. To examine the relationship between business growth and self-perception of success, a survey sample of small business owners (n=340) was analysed according to their intention to expand their firm in terms of number of employees. The findings of the data analyses provide some evidence that there is a positive relationship between the growth intentions of small business owners and their self-perception of success. The results also confirmed the reliability of a scale to measure the self-perception of success. The results also have implications for a number of research and policy settings.

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INTRODUCTION

This paper examines the relationship between the small business owner's intention to grow their business and their self-perception of success. While there has been a considerable body of research on the growth of the small business and success (Baum, Locke and Smith 2001; Cliff 1998, Davidsson, Steffens and Fitzsimmons 2009; Wiklund and Shepherd 2003, Runyan, Droge and Swinney 2008), there has been relatively less work on the relationship between the small business owner's self perception of success and their intention to grow their business. The growth of the firm is frequently used as a performance measure since small business and entrepreneurship researchers frequently use growth as an indicator of success (Murphy, Trailer and Hill 1996, Dobbs and Hamilton 2007). However, many small business owners choose not to pursue growth opportunities for fear of losing control of the firm's operations and consequent loss of earnings. The business owner's potential loss of the firm's "small business" atmosphere also acts as a barrier to growth (Wiklund, Davidsson and Delmar 2003).

Some small business owners are not keen to expand their business simply because of lifestyle choices (Carlsen, Morrison and Weber 2008). Many small business owners are content with maintaining the lifestyle their business affords them and do not want to risk this by undergoing business growth (Frederick, Kuratko and Hodgetts 2006; Trott 2008). Consequently, there may well be business owners that do not seek the expansion of their firms yet still consider themselves as successful if they are achieving other business and lifestyle goals. Conversely, business owners with the intent to grow their business might be achieving slower than expected business growth and therefore do not consider themselves as successful. Indeed, despite a business owner's intention to grow, it is possible that they are not achieving any growth at all and under these circumstances, self-perceptions of success are likely to be impacted negatively. Jenkins and Johnson (1997) argued that simply having the intention to grow a business does not necessarily mean that this outcome will be achieved. The paper takes a closer look at the differences between growth and non-growth oriented small business owners and their self-perception of success.

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The larger research project from which this paper was developed is the Western Australian Small Business Benchmarks (WASBB) project (Weber et al. 2009). WASBB was designed to develop and implement a model and methodology for measuring success across a broad range of personal and business metrics that is accessible to, and applicable by, small business owners. The long-term goal of the project is to generate a simple low cost set of metrics by which small businesses may benchmark their performance relative to other similar businesses. In tandem with this project, the questionnaire was used as a vehicle to support a study into knowledge acquisition by SMEs (Geneste 2010).

The proposition that this paper seeks to explore relates to the relationship between the growth orientation of the owner and his or her perceived levels of success. It is common parlance in business popular press and consultancy circles to suggest that success requires growth, that to stand still is to die. The question we raise here in an era when many small business owners are more focused on lifestyle than traditional growth is to what extent do small business owners actually ascribe to this mantra.

Hypothesis

The overall aim of this paper is to investigate if small business owners with the intent of achieving business growth are different to small business owners who do not share this intent in relation to their self-perceptions of success. The hypotheses associated with this study are therefore as follows:

H^0: There is no relationship between perceived small business success and the owner's willingness to grow their business

H^1: There is a relationship between perceived small business success and the owner's willingness to grow their business

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LITERATURE REVIEW

Small Business Success

Applying the value-laden judgments of researchers is fraught with risk when one tries to define success, particularly by relying on quantitative and heavily deterministic measures such as turnover or profit. For some owners, just being in business is enough (Still, Soutar and Walker 2005); for others it is about doing good, about giving back to society and making a substantial difference to others (Dees 1998). Thus, it would seem that whilst quantitative measures of profit and turnover are useful to compare between subjects, they do not capture the broad spectrum of goals and ambitions that drive small business owner behaviours.

Curran and Blackburn (2001) described as "dubious" attempts to describe the typical or average firm based upon specific measures such as turnover, particularly in the one-to-four employee category. Perhaps success can be measured better by focusing on a plurality of attainments of both intrinsic or extrinsic goals (Kuratko, Hornsby and Naffgizer 1997; Robichaud, McGraw and Roger 2001). Particularly within the small business context, success can be a very personal (intrinsic) thing as Jennings and Beaver (1997, p. 63) reported:

Contrary to popular belief, and a great deal of economic theory, money and the pursuit of a personal financial fortune are NOT as significant as the desire for personal involvement, responsibility and the independent quality and style of life which many small business owner-managers strive to achieve.

Jennings and Beaver (1997) also argued that academic attempts at defining success in the small business environment have been either a case of adopting narrow accountancy measures, or even more crude quantitative measures such as job creation and growth in turnover. They argue that the best measure of success may well be "the sustained satisfaction of principal stakeholder aspirations" (Jennings and Beaver 1997, p. 68.). This satisfaction notion is similar to that espoused by Still and Soutar (2001) who looked at goal satisfaction as a proxy for success, hypothesizing that exceeding expected targets

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would lead to satisfaction and a global feeling of success. However, implicit in this language of 'expected targets' is a continued desire to measure the quantum of such satisfaction.

Personal or intrinsic success manifests itself in the current study as the internal sense of satisfaction or achievement that arises from owning and operating the business. Often, this subjective assessment is captured in the motivation and goal achievement literature, as well as in the psychological perspective of a workplace (Frese, Brantjes and Hoorn 2002). LeCornu et al. (1996) confirmed the existence of small enterprise owners in Australia who are not motivated primarily by profit, underscoring the need for diverse measures of success. Also, King (2002) suggested this manifests itself as a need for spiritual success as well as monetary reward. Thus, non-financial success measures are becoming more frequent in the entrepreneurship and small business literature; the problem is one of selecting between alternate common themes.

Previously, the ABS has used a single-item measure of success, administered to small business owners in the Characteristics of Small Business series (ABS, 1997, 1999; 2001, 2003). Confirming the inherent limitations of adopting a single-item measure of a complex issue, other researchers have constructed a bank of four questions that seem to cover satisfaction with both personal and financial outcomes (Kaufman, Weaver and Poynter 1996). Space precludes a more substantive discussion around the range of intrinsic and extrinsic motivations, goals and metrics that have been identified by WASBB researchers (Weber et al. 2009). It is sufficient, for the purpose of this paper, to rely on the previously validated scale to compare the identified measures of success to their growth intentions described next.

Small Business Growth

Despite the problematic nature of defining small business success, growth of the small firm has frequently been used by researchers as a proxy for small business success (Baum, Locke and Smith 2001; Cliff 1998, Davidsson, Steffens and Fitzsimmons 2009; Wiklund

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and Shepherd 2003, Runyan, Droge and Swinney 2008). While the growth of the firm might be regarded more appropriately as a measure of organisational performance rather than success, Murphy, Trailer and Hill (1996) argued organisational performance is critical to understanding small business success and failure. Small business growth is measured according to a wide range of criteria including sales and turnover growth, market share, total assets, profitability and employee numbers (Glancey 1998, Davidsson et al 2002, Dobbs and Hamilton 2007, Davidsson, Steffens and Fitzsimmons 2009).

Dobbs and Hamilton (2007) reviewed 34 studies on small business growth published since the mid 1990s and found measures for growth included sales, financial growth, assets and employment. In nearly two-thirds of these studies, the increase in employee numbers was the key measure of small business growth (Dobbs and Hamilton 2007). The focus of economic policy studies on the contribution of small business to economic growth and job creation helps explain why employee numbers and growth are frequently used measures of small business success (Hoogstra and van Dijk 2004, Schutjens and Wever 2000, Dobbs and Hamilton 2007). According to Schutjens and Wever (2000), the use of employee numbers as the measure of firm growth and size is the most appropriate since assets and turnover fail to account for non-financial entrepreneurial motivations.

Since most small business owners work full-time in their businesses, most business decisions must be made by the owners. Accordingly, the personal motivations and intentions of business owners will impact on whether they want to grow the business or decide to keep it to a size they are prepared to manage (Walker and Brown 2004, Cassar 2007). Consequently, the most important factor that contributes to small business growth is the commitment of the firm's owner to business growth (Dobbs and Hamilton 2007). There are clear indications that many business owners deliberately refrain from pursuing and exploiting opportunities to grow their firms (Wiklund, Davidsson and Delmar 2003). These reasons include concern for employee well-being and the loss of the positive small business atmosphere that engenders comradeship, involvement and job satisfaction (Davidsson 1989, Wiklund, Davidsson and Delmar 2003).

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The effect of growth on the owner's ability to maintain the control of the firm's operations and the ability to survive crises, such as, an economic downturn and loss of earnings, are also concerns that affect the SME owner's willingness to expand their business (Davidsson 1989, Wiklund, Davidsson & Delmar 2003, Dobbs and Hamilton 2007). Indeed, Wiklund, Davidsson and Delmar (2003) argued that small business owners' attitude to growth depended on their expected consequences of that growth. For instance, if the small business owner expected business growth would lead to negative consequences such as products and services of lower quality, such anticipated consequences would lead to a negative attitude toward growth (Wiklund, Davidsson & Delmar 2003, Davidsson 1989). This is supported by Davidsson's (1989) research on Swedish small firms where he found certain expected outcomes of growth are important determinants of growth willingness (p. 222). For instance, positive motivators for business growth such as independence and need for achievement, in many cases were outweighed by negative consequences such as loss of control and reduced employee well-being (Davidsson, 1989). Some owners are simply not keen to expand their business because of deliberate 'lifestyle' choices (Carlsen, Morrison and Weber 2008). In fact, many owners identify themselves as lifestylers and expect no, or limited, medium-term growth potential for their business (Frederick, Kuratko and Hodgetts 2006; Trott 2008). Lifestyle oriented small firms can be conceptualised as businesses set up to undertake an activity that adds to perceived enjoyment of life in general via a level of activity that provides adequate income to the owner (Carlsen, Morrison and Weber 2008).

Although the growth intentions of a small business owner is not a measure for real growth, given the alternative attitudes of owners toward business growth, it is likely that these attitudes can be used to help distinguish between growth and non-growth firms (Dobbs and Hamilton 2007).

METHODOLOGY

Data collected from the 2008 pilot study of the Western Australian Small Business Benchmarks Survey (Weber et al 2008) were analysed for the purpose of this paper. An

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original total of 403 responses were received; 13 questionnaires were not used due incomplete responses or other unresolvable problems. Of the remaining 390 responses, a further 39 were removed as being from persons in organizations too large to qualify as small businesses by our adopted definition. Seven responses were also removed that ignored other exclusion criteria such as being not-for-profit entities or businesses that had not traded for a full financial year. Finally, four respondents from the remaining data set did not provide their growth intentions for their business and were also excluded from analysis. This meant a pool of 340 respondents was available for analysis (n=340).

This cross-sectional survey of Western Australian small businesses included a previously tested 4-item, five-point Likert scale on perceived personal success that accounted for the owners' sense of achievement of personal, business and financial goals. The aforementioned perceived success scale was used in this study, and, as in previous studies (Weber and Schaper 2007; Weber 2008) was found to be a stable, uni-dimensional and reliable indicator of perceived success. The scale was internally reliable with a coefficient Alpha (Cronbach 1951) of 0.931. In addition, the scale has excellent uni-dimensionality with the one factor solution accounting for nearly 83 percent (82.92%) of total variance. In this particular sample, the Kaiser Meyer Olkin test of sampling adequacy was a high .856 which is to be expected from a reliable scale drawn from a sufficiently large sample. In addition, Bartlett's test of sphericity was significant (0.000 level), further indication of the existence of a single success factor. Therefore, one can be confident that the analysis is based upon respondents who reliably report on their 'success'. The four items that constitute the perceived success scale are reproduced below:

My business has fulfilled or is fulfilling my personal goals

My business has fulfilled or is fulfilling my financial goals.

My business is a success

I have accomplished or am accomplishing what I wanted to do with my business

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All items were scored using a five point likert scale with anchors of strongly disagree and strongly agree.

Sample Profile

Some descriptive statistics for a range of variables will be looked at to examine the data set more closely. The variables that will be examined include size of the business in terms of the number of full-time employees, the number of years the owner had been in the business, the sales turnover of firms in the study and a breakdown of the ANZSIC industry sectors represented in the study.

The mean number of full-time employees in the businesses surveyed in the study (n=340) was 4.66, with a standard deviation of 8.39, ranging from a minimum of zero employees to 48 full-time staff. The majority of businesses within the sample did not have any full-time employees. This group of 154 businesses represented 45.3% of the respondents. Businesses with 1-4 employees made up the next largest segment of businesses (90) in this group representing 26.5% of firms in the study. The next largest segment of businesses was the 5-19 employee group accounting for a further 72 businesses (21.1%) in the study. Finally, 24 firms had between 20-49 employees (7.1%).

The number of years the owners had been in their business was also measured. The mean of business ownership years was 13.67. The lowest amount of years the business had been owned was 2 years, which was no doubt impacted by the minimum requirement of 12 months ownership for this study. There was a wide range of sales turnover reported by survey respondents (n=276). The reluctance of some business owners to reveal financial details of their business was reflected by the number of businesses (64) that did not provide turnover figures. The lowest reported annual sales turnover figure was $1000 and the maximum was $9 million. Mean turnover was $1.47 million with a standard deviation of $2.05 million. Over 60% of businesses reported a turnover of $1 million per year or less while 25 businesses (15.1%) reported earnings of $5 million or more per year.

Survey respondents were grouped into their respective ANZSIC industry sectors (2006) based on the description of their business activities. The main divisions represented in the

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survey were professional, scientific and technical services (85 firms accounting for 25% of sample); other services (32 firms, 9.4%); retail trade (32 firms, 9.4%); manufacturing (30 firms, 8.8%); and construction (28 firms, 8.2%). The "other services" category represents businesses that offer services such as repair and maintenance, personal care services and civic and religious services (Australian Bureau of Statistics 2006). The study was a cross-section of WA businesses and at least one business represented each of the different ANZSIC industry sectors. This demonstrated the broad range of businesses that responded to the survey. There were 12 businesses that could not be categorised into an industry grouping for lack of description of business activity. Businesses were present from most of the geographical regions of Western Australia.

The Analyses

Analyses were conducted on the data using SPSS version 17 and EQS 6.1. The analyses of the survey results for the overall success score included an independent t-test analysis to compare the means of the business owners who indicated a preference to grow their business and business owners who did not. Additionally, a Pearson correlation analysis on the business owner's growth intention and two measures, turnover and lifestyle was also examined. Finally, confirmatory factor analyses of the success scale were conducted on the overall sample as well as the growth versus non-growth sub-groups within the sample.

Independent t-test Analysis

An overall success score representing the sum of the four items was obtained for each respondent. The growth intentions of the business owners were ascertained depending on their selection of two options that best described their preference for the future size of their business – "I want the business to be as large as possible " or "I want a size I can manage myself or with a few key employees" (Cassar 2007). Of the 340 respondents, 177 indicated the intention to grow their business and 163 chose the non-growth option.

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Using SPSS, an independent t-test analysis of the means of the summed success score across the two small business groups was conducted to determine if there was any significant difference between the two means. The results of the analysis are presented in table 1.

Table 1 Independent Samples T-Test for Business Growth and Non-business Growth Respondents

		Levene's Test for Equality of Variances		*t*-test for Equality of Means				
		F	Sig.	*t*	df	Sig (2-tailed)	Mean Difference	Std. Error Difference
Success score	Equal variances assumed	9.469	.002	-6.271	338	.000	-3.060	.488
	Equal variances not assumed			-6.226	317.172	.000	-3.060	.492

The group statistics revealed the mean of the summed success score for the non-growth intention business owners (n=163) was 10.59 with a standard deviation of 4.89 and the mean of the success score for business owners with growth intentions (n=177) was higher at 13.65 and a standard deviation of 4.10. The results of the independent t-test analysis of the means of the summed success score across the two sub-groups revealed a significant difference, $t(317) = 6.23$, $p<.01$ between the two groups.

Confirmatory Factor Analyses

Confirmatory factor analysis, using EQS (version 6.1), of the success scale was conducted on the total sample of 340 respondents and subsequently run on the growth versus non-growth sub-groups within this sample to identify if the scale had a better fit on one of the sub-groups. The diagram of the CFA for the entire sample (n=340) is provided in figure 1. The loadings for each of the items within the scale exceed the recommended minimum value of .5 showing good convergent validity (Fornell and Larcker 1981).

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The results of the analyses for the entire survey group and the growth and non-growth subgroups are presented in table 3.

The confirmatory factor analysis (CFA) for the success scale for the complete sample set (n=340) revealed good fit indices with a χ^2 of 5.59 on 2 degrees of freedom (df). The χ^2 statistic is below the 3:1 ratio to df which is recommended for a good fitting model (Hair et al 2006). The other goodness of fit indices also showed a good fitting model with a confirmatory fit index (CFI) of .997 and non-normed fit index of .990. Both indices exceeded the .95 threshold of good model fit (Byrne 2006). The Steiger-Lindt root mean square of error of approximation (RMSEA) was .073, below the .08 value regarded as a reasonable error of approximation (Kaplan 2009). The Rho (ρ) coefficient for the scale, considered a more appropriate measure of internal consistency than Cronbach's α for latent variable models, was .929 and also supported the convergent validity of the scale (Byrne 2006).

Figure 1 CFA Model Diagram for Success Scale for Overall Sample

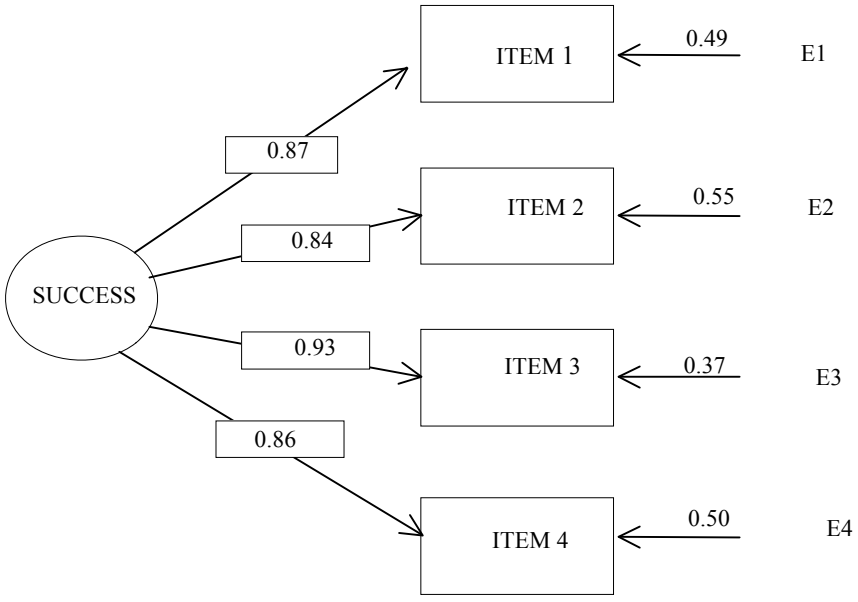

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Table 3 Summary of Goodness of Fit Measures for Structural Models

Model	Chi-Square	Degree of Freedom	Chi-Square/ df Ratio	CFI	NNFI	RMSEA	RMSEA 90% CI Levels
Model 1	5.59	2	2.80	.997	.990	.073	.000-.147
Model 2	1.49	2	.75	1.00	1.00	.000	.000-.137
Model 3	5.38	2	2.69	.994	.982	.102	.000-.210

Model 1 - CFA results for entire sample (n=340)
Model 2 - CFA results for growth oriented business owners
Model 3 - CFA results for non-growth oriented business owners

Since the aim of the study was to examine the relationship between the growth intentions of the small business owner and success, a CFA for the respondents indicating the intention to grow their business (n=177) was also conducted. The CFA for the success scale from respondents with the intention of growing their business also provided good fit indices with a χ^2 of 1.49 on 2 df. The CFI was 1.00 and the NNFI was also 1.00 with an RMSEA of 0.000. On the other hand, the CFA for the non-growth oriented businesses returned indices showing a poorer model fit with a χ^2 of 5.38 on 2 degrees of freedom, a CFI of .994, NNFI of .982 and RMSEA of .102. The results indicate the success scale had an overall better fit with the data from respondents with the intention of growing their business than respondents with no growth intentions.

RESULTS AND IMPLICATIONS

The results of the independent samples t-test (see table 1) showed there was a significant difference between the means of the summed success score in non-growth oriented business owners ($\bar{x}$ = 10.59) and growth oriented business owners ($\bar{x}$ = 13.65). The higher mean for the success score for growth oriented small business owners provides some evidence that business owners who want to grow their business perceive themselves as more successful than business owners who want to manage their business themselves or with a key employees.

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A significant t-test result does not mean much unless the size of the effect it measures is also calculated. Using the "t" value and the degrees of freedom, the size of the effect, r, can also be calculated (Field 2005). The resultant value of .33 is considered a medium effect and reinforces the significance of the result. Admittedly, the intention to achieve business growth is not a measure of real growth but the results provide some argument supporting the perception that business growth and success are related.

The results of the confirmatory factor analyses revealed the success scale had a reasonable fit with the data with overall good fit indices. The RMSEA result is considered an important goodness-of-fit statistic particularly because it has the advantage of having a confidence interval that accompanies it (McQuitty 2004). The RMSEA for the success scale on the main sample (n=340) was .073, a result deemed acceptable because it was below the .08 threshold value for a reasonable error of approximation (Kaplan 2009). The fit indices, and particularly the RMSEA for the success scale on the growth intent group (n=177) of .000, show an overall better fit than that for the entire sample. The result suggests that success has an overall better fit with business owners that are oriented towards the growth of their business. The RMSEA of .102 for the non-growth business owners' group (n=163) shows a poorer fit with the data and also supports the finding that the success scale has a better fit with the growth oriented group. Caution should be taken when interpreting the model fit results, however, since the upper bound of the 90% confidence interval for the RMSEA result (see table 3) exceeds .1 for each sample group, a result that indicates the model has low statistical power (McQuitty 2004). Upper bound levels exceeding .1 indicate problems with model fit; however, this might be a reflection of the small model size, represented by the very low degrees of freedom associated with the model (df = 2) and the relatively small sample size (McQuitty 2004).

The overall results of the analyses lend support to H^1, that there is a relationship between small business success and the owner's growth intentions. The results showed this relationship to be a positive one, i.e. that the owner's intention to grow their business has a positive relationship with their self-perception of success. The results show a relationship but do not imply any causality between business growth and self-perception of success. The result might indicate that business owners, who perceive themselves as

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successful after having fulfilled personal and financial goals, have a greater disposition toward business growth particularly if they expect this growth to lead to further goal attainment (Wiklund, Davidsson and Delmar 2003). This would show a temporal relationship between business growth and self-perception of success and is an avenue for future research. Another important outcome of this study was the successful application of Weber's (2006) perceived success scale on a diverse sample of small business owners. The scale proved to be a robust way of measuring success perceptions, with this simple scale exhibiting a very good Cronbach alpha of 0.931.

CONCLUSION

While the findings are only preliminary and more research is required to examine the relationship between business growth and perceived success, the study provides some evidence that business owners who adopt a growth orientation to their business might have a higher self-perception of success than their non-growth counterparts. Another finding from the study is a reliable four-item scale of a business owner's self-perceived success. There are a number of limitations associated with this study. One limitation is the use of the business owner's intent to grow their business as a proxy for business growth. Simply because a business owner wishes to expand the size of their business in terms of employee numbers does not necessarily mean that the business will achieve growth. Another limitation of the study is the relatively small sample size used for the confirmatory factor analyses and the small model size (in terms of df). This affected the assessment of the overall statistical power of the model.

Nevertheless, the significant findings of the independent t-test analysis justify further investigation in the relationship between success and business growth. Further research to determine the extent to which self-perceived success and growth intentions are correlated is required. Additionally, research examining the direction of a potential causal relationship between growth intent and perceived venture success would also be beneficial. An examination of the correlation in temporal terms could also be conducted

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in a future study provided data were collected at multiple time points. The results also have implications for a number of research and policy settings:

If owners who are growth oriented are also predisposed to positive self perceptions of their own success, this may result in spurious correlations being explained in some studies on small business growth.

Where policy makers are intent upon supporting growth oriented firms, use of success perception scales may be one means of identifying likely candidates for additional support since it appears to be an indicator of growth intentions. The use of such scales could be more effective if the direction of causality between self-perceived success and growth intentions was known and this, as mentioned earlier, would be a promising avenue for further research.

Looking at the no growth 'lifestyle group' is it plausible to suggest that the lower levels of success perception associated with this group could be somewhat of a self fulfilling prophesy? If this were the case then one way to encourage the business growth so often chased by market commentators and management advisors would be a focus upon measuring and quantifying success that is relevant in the business owner's eyes.

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THE PARADOXICAL NATURE OF VENTURE FAILURE

Noga Gulst and Alex Maritz
Swinburne University Of Technology, Hawthorn, Australia

ABSTRACT

New Venture Failure (NVF) is a well researched field, placing emphasis on the importance of learning and recovering from. However, studies about what it is that one can learn from NVF are scant. This exploratory, qualitative study explores how 27 experienced Australian entrepreneurs and intrapreneurs perceive new venture failure, and what they have learned from it. The research used practice-based theories to convert the participants' experiences into academic theories. The data was analysed using cognitive maps for categorising and sorting the data, and classic content and word count techniques for the analyses. We conclude with a conceptual list of advice to help novice and nascent entrepreneurs and intrapreneurs succeed in their first venture/s, as suggested by the participants. A significant addition to the body of knowledge in this domain is depicted. Since this study is a first of its kind to integrate entrepreneurial learning and new venture failure, the following finding is highlighted: Venture failure is not perceived in a negative context by entrepreneurs, as long as they learn from the experience/s. As such, it is identified that ventures fail, not entrepreneurs! This finding would, however, provide a base for further empirical research into the psychological aspects of entrepreneurs' perceptions to new venture failure.

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INTRODUCTION

This study explores the relationship between two fields: new venture failure and entrepreneurial learning.

The nature of the "failure paradox" is composed from three parts:

1. Lack of a common definition for business and new venture failure - Watson and Everett (1993) summarised the definition of business failure into four main definitions: business closure for any reason, business disposed to prevent further losses, bankruptcy and failing to "make a go of it". This research approach to venture failure is based on the entrepreneurs' decision only, regardless of the objective state of the venture. Therefore, the definition of new venture failure is a nuance of "make a go of it" that is, described as "the entrepreneurs' dissatisfaction of the venture's progression".
2. Cultural base attitude toward business and new venture failure - The attitude towards failure is culturally based (Cave, Eccles, & Rundle, 2001). In the US, the attitude towards failure is mainly positive, whilst in other countries, such as the UK and Japan, it is negative.
3. Confusion between entrepreneurs who closed their business and 'unsuccessful' entrepreneurs - or in other words, between venture failure and failed entrepreneurs (Sarasvathy & Menon, 2003; Stokes & Blackburn, 2002).

In this research, entrepreneur is defined as "an individual who applies innovative solutions to opportunities in new or existing organisations", emphasising that entrepreneurs are found in established businesses as in new ventures. This definition is based on McKenzie and Sud (2008: 127), who stressed that entrepreneurs are individuals who can "see what is not there".

The second field this study explores is entrepreneurial learning, including learning by entrepreneurs and organisations. The research accepts that learning is a combination of cognitive and behavioural learning approaches (Corbett, 2005), stating that learning is a creation of knowledge that leads to a behavioural change.

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It is suggested that entrepreneurs prefer to learn from experience rather than from theories (Rae, 2004b). This type of learning is described as action learning. Action learning concepts were originally developed as a method for combining theory and practice in the entrepreneurial learning style(Harrison & Leitch, 2005). Entrepreneurs learn from every action they perform, gaining experience from both successful and failed procedures, however they will learn more from critical events (Deakins & Freel, 1998). Furthermore, Sitkin (1992) suggest that entrepreneurs' and organisations' learning from successful procedures may result in a repetition of the same procedures that may be performed better, but they do not add to learning as they do not produce cognitive thinking on the procedures and as a result the influence is only on the short term performance. Therefore, the outcomes of failure should be a cognitive reflection on the organisational/entrepreneurial behaviour and performance, using the failure as a learning stage for better performance in the future (Sitkin, 1992).

The aim is to find how entrepreneurs and intrapreneurs define new venture failure and what they learn from it.

Most of the academic literature enforces the importance of learning from new venture failure, however the research on what is it that can be learned from it is scant. Therefore, this study adds to the growing body of entrepreneurial research by combining entrepreneurial learning and new venture failures, Figure 1 demonstrate the research place in the knowledge base.

The article will commence in classifying entrepreneurship typology and new venture failure emphasising on its paradoxical nature. Research questions and proposition are then stated. The article will continue with methodology, findings and discussion and will conclude with conclusions, limitations and suggestions for future research.

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LITERATURE REVIEW

Entrepreneurship Typology

We acknowledge Bolton and Thompson's (2004) definition that entrepreneurship is not only about generating revenue or the creation of new organisations. However, we notice the significance of adding the opportunity recognition to the definition, as suggested by Drucker (1993), McKenzie & Sud (2008) and Wooldridge (2009), emphasising that entrepreneurs are individuals and not a group of people. An organisation may employ more than one entrepreneur, but each entrepreneur is an individual, that may start a new venture or exploit a new opportunity. Furthermore, we recognize Sharma and Chrisman (2007) addition of corporate entrepreneurs (intrapreneurs) to the general definition of entrepreneurs. Therefore, we define entrepreneur as "an individual who applies innovative solutions to opportunities in new or existing organisations".

Entrepreneurship is frequently related to the start-up of new organizations, though entrepreneurship can happen in any organisation regardless of its size, maturity or type (Morris, Kuratko, & Covin, 2008). This type of entrepreneurship is called intrapreneurship, corporate entrepreneurship or corporate venturing, and is mostly defined as entrepreneurship within an existing corporate structure (Bager, Ottosson, & Schott, 2010; Burns, 2008; Fitzsimmons, Douglas, Antoncic, & Hisrich, 2005; Menzel, Aaltio, & Ulijn, 2007; Shepherd & Katz, 2004) (or entrepreneurial behaviour in an established, larger organisation (Burns, 2008; Morris et al., 2008). The level of entrepreneurship varies between the different organisations, with 3-M and Microsoft on the high side of the continuum and big bureaucratic firms on the low end (Morris et al., 2008).

Entrepreneurs and intrapreneurs are similar in many respects but, at the same time, their working in different environments means that an emphasis must be placed on the differences between them as well. As do intrapreneurs and entrepreneurs, intrapreneurship and entrepreneurship have both similarities and differences (Hisrich, 1990; Morris et al., 2008). Table 1 summarise the similarities and differences between intrapreneurs and entrepreneurs.

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Regardless of the entrepreneur's definition, entrepreneurship literature mentions six types of entrepreneurs: nascent, novice, one time, serial, portfolio and habitual entrepreneurs. This section will define each entrepreneur type as found in the relevant literature and show the connection between the entrepreneur's type and organisation / entrepreneurial failure.

1. Nascent Entrepreneurs – Nascent entrepreneurs are individuals who have made their first steps towards starting their first new venture (Bosma & Harding, 2006; Gulst & Maritz, 2009). The venture may be a new business (start-up) or embedded in a mature business. These nascent entrepreneurs may become managers of a start-up, or lead the new venture in the business that employs them. For these people, as they are not yet entrepreneurs, failure is just a risk they take into consideration when deciding to become entrepreneurs. Whether they will become successful or failed entrepreneurs in the future, only their actions will tell.
2. Novice Entrepreneurs – Novice entrepreneurs are entrepreneurs that started their first venture (Amaral & Baptista, 2006; Gulst & Maritz, 2009), regardless if it is a new business or a new venture. They are less experienced and will either stay one-time entrepreneurs or become habitual entrepreneurs. Failure in this case will be determined by their future activities and depend on their reaction if their first venture will fail.
3. One-Time Entrepreneurs – One-time entrepreneurs are entrepreneurs that started their first venture, and did not start other ventures (Gulst & Maritz, 2009; Sarasvathy & Menon, 2003). The entrepreneur of this type will continue to develop and grow this venture if it succeeds or return to employment if it failed. This is the only group of entrepreneurs that this research regards as failure, as they ceased their entrepreneurial activities, and by doing so conform to Saravasthy and Menon's (2003) definition.
4. Habitual Entrepreneurs –Habitual entrepreneurs are entrepreneurs that start new ventures consistently (Gulst & Maritz, 2009; Westhead & Wright, 1998), one at a time or simultaneously. The important concept here is that, regardless of the result of their venture (failure or success), they will start a new one. The failures and successes of this group are always considered in retrospect, at the end of their entire

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entrepreneurial careers. In this research, this group will be addressed as successful entrepreneurs, accepting the claims of Sarasvathy and Menon (2003) and Timmons and Spinelli (2009) that there are no failed habitual entrepreneurs, just failed ventures

a. Serial Entrepreneurs – Serial entrepreneurs are habitual entrepreneurs who create new ventures, one at a time (Gulst & Maritz, 2009). The ventures can be a new business (Bosma & Harding, 2006; Florin, 2005) or embedded in a mature business (Morris et al., 2008; Sharma & Chrisman, 2007). This research adds the intrapreneurs to the category of serial entrepreneurs. Although they do not open new businesses, or may even not run the business in which they are employed, they habitually create new ventures in their business (or in the business in which they work). Disregarding these entrepreneurs would suggest that entrepreneurs like Bill Gates are one-time entrepreneurs and not serial entrepreneurs, as suggested above. As mentioned earlier, as the serial entrepreneurs are a sub-group of the habitual entrepreneurs, they will always be considered as successful entrepreneurs.
b. Portfolio Entrepreneurs – Portfolio entrepreneurs are habitual entrepreneurs who create, manage and/or lead new ventures, simultaneously (Gulst & Maritz, 2009; Ucbasaran, Westhead, & Wright, 2008). They are involved in multiple new businesses and/or multiple new ventures embedded in mature business at the same time. The primary characteristic of this type of entrepreneur is that they divide their attention between a number of ventures instead of focusing on one. As with the serial entrepreneurs, these entrepreneurs are treated as successful, regardless of the success or failure of a specific venture

New Venture and Business Failure

The attitude towards failure is culturally based. While the attitude in the USA towards failure is mainly positive, the attitude towards failure in other countries, such as the UK and Japan is negative. This is the nature of the "failure paradox" (Cope, Cave, & Eccles, 2008; Landier, 2005; Lee & Peterson, 2000).

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However, before trying to understand this paradox, one should understand the phenomenon of business and new venture failure. The academic literature does not agree on a common definition for business failure (Watson & Everett, 1993). Researchers define failure as it fits their research question and the failure ratio they wish to indicate. Therefore, Pretorius (2009) suggests that there is a lack of comparability in research outcomes.

Watson and Everett (1993) summarised four main definitions for business failure; discontinuance for any reason, disposed to prevent further losses, bankruptcy and falling short of goals. They argued that the failure rates changes according to the failure definition between the two extremes – discontinues for any reason (highest failure rate) and bankruptcy (lowest failure rate), where disposal to prevent further losses is between them. However, falling short of goals is outside of this continuum, as it is defined by the entrepreneurs themselves and not by the authorities or any other outside observer.

Hence, this research approach to venture failure is based on the entrepreneurs' decision only, regardless of the objective state of the venture / business. Therefore, the definition of new venture failure is a nuance of "falling short of goals" and is described as "the entrepreneurs' dissatisfaction of the venture's progression" (Gulst & Maritz, 2010).

We differentiate between a new venture and an organisation. A new venture is any creation of a new product or service while an organisation is a legal entity. The new venture can be the whole organisation (as in a start-up) or embedded in a mature organisation.

This is the most appropriate failure definition for this research as the unit of measure in the research are the entrepreneurs and intrapreneurs rather than their businesses. Furthermore, this definition is appropriate to business failure as well as new venture failure.

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The attitude towards failure is ambivalent. The first intuitive feeling about business failure is that it is something to avoid. Utterance as the next citation is a common attitude towards business failure:

"In our culture, failure is anathema. We rarely hear about it, we never dwell on it and most of us do our best never to admit to it. Especially in organizations, failure is often simply not tolerated and people avoid being associated with failure of any kind" (Berg & Mirvis, 1977).

On the other hand, failure is thought to be a good teacher, as is understood from the next citations:

"The process of learning from business failure also benefits society, through the application of that knowledge to subsequent businesses." (Shepherd, 2003: 318)

Therefore, entrepreneurs will not want their names connected to a failed venture, as there is a tendency to confuse between failed ventures and failed entrepreneurs (Politis & Gabrielsson, 2009; Sarasvathy & Menon, 2003; Stokes & Blackburn, 2002). Some of the researchers see it from a positive point of view as long as it is used as a learning stage for better future performance (Connell et al., 2001; Knott & Posen, 2005; Sitkin, 1992). Others argue that although the failure is a learning stage, organisations and entrepreneurs may find it a difficult way to learn (Cannon & Edmondson, 2005), and therefore may discard it.

Furthermore, as mentioned earlier, the attitude toward business failure has a geographical perspective. While in the US, failure is taken as part of the entrepreneurs' learning curve, in Europe and Japan, failure is seen as a negative outcome, and entrepreneurs will find it difficult to fund their next venture if they failed in the first one (Cope et al., 2008; Landier, 2005; Lee & Peterson, 2000).

Cave, Eccles and Rundle (2001) researched the different attitudes between entrepreneurs that experienced failed ventures in the UK and in the USA. They found that in the UK,

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entrepreneurs admitted that the fear of failure had hindered their growth rate and they took fewer risks, as it was difficult to remove the failed entrepreneurs' stigma that was associated with the venture's failure. Once more, the entrepreneurs felt that their venture failure was attached to them personally. While in the US the entrepreneurs saw the failure as a learning process that helps them to become more resilient. The main difference between entrepreneurs from both countries lays in the culture of the countries (Lee & Peterson, 2000). Furthermore, as the attitude towards the failure is negative, entrepreneurs will spend resources on avoiding failure instead of learning from the failure (McGrath, 1999).

New Venture Failure as Opposed to Entrepreneur's Failure

"Failure doesn't mean you are a failure it just means you haven't succeeded yet" (Schuller, 2006)

The third part of the paradoxical nature of new venture failure is the confusion between entrepreneurs that closed their business versus "unsuccessful" entrepreneurs. In other words, between venture failure and failed entrepreneurs (Sarasvathy & Menon, 2003; Stokes & Blackburn, 2002). When a venture fails, in any definition of failure, the entrepreneurs must decide on their future: are they coping with the venture failure, learning from it and starting their next venture (McGrath, 1999; Shepherd, 2003; Singh, Corner, & Pavlovich, 2007) or do they exit entrepreneurial activities and return to employment. Sarasvathy and Menon (2003) argue that the entrepreneurs that go back to employment are the only entrepreneurs that are considered as failed entrepreneurs. Furthermore Bolton and Thompson (2004) definition of entrepreneurs does not consider these people as entrepreneurs at all. Sarasvathy and Menon (2003) argue that habitual entrepreneurs should never be considered as failed entrepreneurs, as they learn from their mistakes, and start a new and hopefully more successful venture.

The attitude of a country towards business failure can be seen through its bankruptcy laws (Cave et al., 2001). In Australia, bankruptcy is a stage that last between 3 to 8 years (AussieLegal, 2009). During this time the entrepreneurs are not allowed to open any other business, however entrepreneurs may pay their debts from money they receive from

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relatives, and by that shorten the insolvent period. Furthermore, after the bankruptcy period is over, the name of the entrepreneur stays in the National Personal Insolvency Index (NPII) database. A different approach is the American approach towards bankruptcy. After declaring bankruptcy, the entrepreneurs may open their next venture and with the money they earn in it, pay their debts for the bankrupt venture (Legal-Information-Institute, 2009). The differences between these two laws suggest a political and cultural attitude towards business failure.

This research accepts Sarasvathy and Menon's (2003) attitude, and refers to all habitual entrepreneurs, regardless the country they create in, as successful entrepreneurs, that may have in their history failed ventures, but coped with them and opened new ventures. Furthermore, as these entrepreneurs experienced failed venture, their experience may benefit nascent and novice entrepreneurs.

Entrepreneurial Learning

Skinner (1953) defined learning as a change of behaviour, emphasising that improvement in performance may be regarded as training and not regarded as learning. This definition was broadened by Huber (1991: 89), emphasising that learning is seen when there is a potential for behavioural change: "an entity learns if, through its processing of information, the range of its potential behaviours is changed" . Therefore, it is the process the entrepreneurs go through and not its outcome that is important.

A very different approach of defining learning comes from the cognitive and experiential learning theories where learning is defined as knowledge creation (Gibb, 1997; Harrison & Leitch, 2005; Kolb, 1984). This definition is based on the works of John Dewey, Kurt Lewin and Jean Piaget from the beginning of the 20th century (Kolb, 1984).

Entrepreneurial learning can be understood in two ways, learning to behave as an entrepreneur, entrepreneurs' learning during their entrepreneurial career or a combination of both (Rae & Carswell, 2001). However, as we are exploring what entrepreneurs and intrapreneurs learned from their failed ventures, we focus on entrepreneurs and intrapreneurs' learning during their career.

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Cope (2005: 374) describes entrepreneurs' learning as "learning experienced by entrepreneurs during the creation and development of a small enterprise, rather than a particular style or form of learning that could be described as 'entrepreneurial' ". While accepting this definition, this research argues that experience can come from any venture creation, and not only ventures that create new enterprises.

Most researchers agree that entrepreneurs' learning is a process of changing experience into knowledge, or just gaining knowledge, as depicted in Table 1. We accept the general definition that entrepreneurs' learning is a process of changing experience into knowledge.

Entrepreneurs prefer practice to theory, a phenomenon that influences their learning styles (Rae, 2004a). Learning is achieved while creating and managing new ventures rather than in formal classes. It does not follow a planned structure, being done in real-time through the experiences acquired and reactions to changes, incidents and problems that are encounter (Deakins & Freel, 1998; Rae, 2004a, 2005). It is suggested that entrepreneurs learn by exploiting and exploring their experience and knowledge. They may exploit their experience by replicating more or less successful actions or exploring new actions when their action failed or when they do not have former experience in the subject (Minniti & Bygrave, 2001; Politis & Gabrielsson, 2009).

In addition to learning from their own experience, entrepreneurs learn by observing others' actions, retaining the information, assimilating it in their memory and relating it to their own situations. This type of knowledge can act as a template for evaluating their own actions (Holcomb, Ireland, Holmes Jr, & Hitt, 2009). Therefore, entrepreneurs' learning is defined as the creation of knowledge that leads to behavioural change.

Learning from Failure

"Firms go out of existence, but entrepreneurs survive and learn" (Timmons & Spinelli, 2009: 107)

As stated previously, venture failure can occur in new ventures embedded in a mature organisation (intrapreneurship) or in stand-alone new ventures (entrepreneurship). This section will broaden the area of learning from intrapreneurial and/or entrepreneurial new

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ventures' failure. For reading clarity, this section will address entrepreneurship and intrapreneurship as entrepreneurship or new ventures. Likewise, this section will address intrapreneurs and entrepreneurs as entrepreneurs.

Venture failure is probably the one thing that almost all entrepreneurs face somewhere in their endeavours. At the same time, failure is probably the last thing on the mind of an entrepreneur starting out on the entrepreneurial process (Pretorius, 2008).

Venture failure can be addressed in negatively or positively. While the negative outcomes of failure are monetary and emotional cost, the positive effects are associated with learning, gaining experience and other cognitive constructs (Mitchell, Mitchel, & Smith, 2004). Furthermore, many researchers emphasise that failure represents an essential requirement for learning. Therefore, failure is an experience entrepreneurs gained as part of their learning curve (Cave et al., 2001; Cope et al., 2008; Shepherd, 2003; Sitkin, 1992; Stokes & Blackburn, 2002).

Shepherd (2003) emphasise that learning from venture failure occurs when entrepreneurs are able to use the experience and the information, gathered in the failed venture, for revising their knowledge and beliefs. Therefore, entrepreneurs must reflect on their actions, understand what went wrong and use the new knowledge in their next venture (Shepherd, 2003). However, McKenzie and Sud (2008) demonstrate that although it is important to learn from failure, there are cases in which nothing is to be learned from the failure. They give an example of failure caused by exogenous forces. However, the belief expressed in this study is that even from such failure entrepreneurs can learn, if they reflect on their actions, to avoid those forces in their next venture (for example, choose a different environment in which to start that venture).

Although entrepreneurs learn from every action they perform, gaining experience from both successful and failed procedures, they will learn more from critical events (Deakins & Freel, 1998). Therefore, the outcome of failure should be a cognitive reflection on the organisational (or the entrepreneurial) behaviour and performance, using the failure as a learning stage for better performance in the future. Successful procedures may result in the repetition of the same procedures that may be performed more effectively, but they do

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not enhance learning as they do not produce cognitive thinking on the procedures and, as a result, the influence is only on short term performance (Politis & Gabrielsson, 2009; Sitkin, 1992). Moreover, repeating successful routines may have an opposite outcome, as entrepreneurs become over-confident in their actions and repeat the same routine even if the situation has changed. In this case, their chance of failing the next time increases as it prevents them from adapting to change (Baumard & Starbuck, 2005). Therefore, the failure should be seen as a "learning journey" (Cardon & McGrath, 1999; Cope, Cave, & Eccles, 2004). In addition, the time and resources that entrepreneurs might use for avoiding the failures may become more costly than failing and learning from it (Huber, 1991; McGrath, 1999).

The research aims to fill the gap that exists in the academic literature by combining two research fields: entrepreneurial learning and new venture failure. Figure 2 represents the preliminary conceptual model that describes the combination of new venture failure and entrepreneurial learning. The gap that this research aims to fill is marked with a bold arrow and the ambit of this research is shaded.

Research Questions and propositions

This study targets two groups, entrepreneurs and intrapreneurs. Both start new ventures, which may succeed or fail. When a venture succeeds the entrepreneurs and intrapreneurs may choose one of two options, start another new venture or continue running the venture. Although an interesting phenomenon, it is out of the ambit of this research. Likewise, when a venture fails, the entrepreneurs and intrapreneurs will choose one of two options; leave the entrepreneurial or intrapreneurial way of life, or learn from the failure and start a new venture, Figure 1 shows the route entrepreneurs / intrapreneurs may choose.

As explained above, learning can occur both from successful and failed ventures. In this schema, the learning is defined as "gain experience", which is the result of the learning process. The arrow between the "fail" box and the "gain experience" box is the gap that this study aims to fill (marked with a bold arrow).

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This thesis will ask entrepreneurs and intrapreneurs to reflect on their former actions when their ventures failed and find out what they have learned from it. The questions are retrospective as it takes time for the entrepreneurs / intrapreneurs to reflect on their actions without their responses being coloured by the grief that may be connected to the failure (Shepherd, 2003).

Therefore, the research questions for this research are:

1. How do entrepreneurs and intrapreneurs perceive venture failure?
2. What is it that entrepreneurs and intrapreneurs learn from new venture failure?
3. What is the difference, if any, between what entrepreneurs and intrapreneurs learn from venture failure?

Qualitative research answers questions related to "how", "why" and "what", and not those to do with relationships between different variables. Therefore, it uses propositions instead of hypotheses. Stating the propositions are the rationalisation and direction the research takes. Furthermore, it creates criteria for judging whether or not the research was successful (Yin, 2003).

The propositions in this study are based on premises that arose from the literature review chapters and supports the rigour and depth of the study (Eisenhardt & Graebner, 2007). Therefore, the propositions and premises of this research are:

Premise 1: Entrepreneurs start new ventures as stand-alone enterprises; therefore, the venture is the business (Timmons & Spinelli, 2009).

Premise 2: Intrapreneurs start new ventures in an established organisation (Morris et al., 2008).

Proposition 1: Entrepreneurs perceive business success and failure as equivalent to new venture success and failure.

Proposition 2: Intrapreneurs perceive business success and failure as equivalent to new venture success and failure.

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Premise 3: There is something to be learned from new venture failure (Politis, 2005; Politis & Gabrielsson, 2009; Sitkin, 1992).

Premise 4: Entrepreneurs who have failed have more experience than entrepreneurs who did not fail (Mitchell et al., 2004).

Proposition 3: New venture failure can be identified as part of the entrepreneurs' learning curve.

Premise 5: By learning from failures, entrepreneurs have better chances of succeeding in their next ventures (Cope et al., 2004; Deakins & Freel, 1998).

Premise 6: Experienced entrepreneurs have a constructive and retrospective view of their failed ventures.

Proposition 4: Experienced entrepreneurs can suggest ways in which they could have overcome the failures.

Proposition 5: Entrepreneurs and intrapreneurs will learn similar things from new venture failure.

METHODOLOGY

This research explores what entrepreneurs and intrapreneurs learned from the failure of their ventures. The study suggests that, although failure is not a desired outcome of a venture, there are worse case scenarios and good things can come out of it.

As the academic literature regarding what it is that can be learned from new venture and business failure is scant, this study is an exploratory qualitative project.

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To understand the phenomenon of new venture failure and what entrepreneurs and intrapreneurs can learn from it, this study uses practice-based theory that explores what and how entrepreneurs and intrapreneurs suggest they have learned from their failed new venture. Practice-based theories are entrepreneurs' narratives for making sense of what works and what does not, based on their own experiences in retrospective. Therefore, the researcher's task is to create academic theory from the participants' narratives (Rae, 2004b).

This research uses an innovative research methodology that does not follow one specific qualitative methodology technique (as case study or grounded theory research), but is rather a combination of qualitative and quantitative techniques that are used to strengthen the results of the research.

This research used multiple types of data; (1) primary data being collected by online survey and structured interviews, and (2) data from previous relevant research was used as a basis for validity of the primary data.

Cooper and Schilder (2003) have stated that, in qualitative research, questionnaires are self-administrated interviews and can, therefore, replace face-to-face structured interviews as a way of allowing a broader sample. Therefore, the analysis of the data treated the entire data set as data that came from structured interviews.

The chosen sampling method is purposive sampling using opportunity and snowball techniques (Tashakkori & Teddlie, 2002).

While searching for entrepreneurs and intrapreneurs to participate, an opportunity to target two entrepreneurial databases arose. Included in the databases are the last three years' winners of Deloitte's "Technology Fast 50" and WiT (Women in Technology) from Queensland. Both organisations agreed to send the questionnaire to their members.

The instrument was used as a structured interview with a control group of 4 entrepreneurs. An online mixed methods survey, using the same questionnaire, was distributed. 23 intrapreneurs and entrepreneurs answered the online mixed methods survey. Of the 23 participants (intrapreneurs and entrepreneurs), 19 provided their details for further

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interviews. Of the contacted respondents, after further contact, only 12 were available for face-to-face structured interviews. All structured interviews used the Stocks and Blackburn's (2002) questionnaire. The responses from the control group integrated well with that of the other face-to-face interview respondents, adding to validity and reliability.

The data from the mixed methods survey and the face-to-face structured interviews were combined, accepting Cooper and Schilder's (2003) clarification that in qualitative research, questionnaires are self-administrated interviews and can, therefore, replace face-to-face structured interviews.

Data analysis used cognitive maps to categorise the data. The cognitive map technique was developed by cognitive psychologists as a means of modelling causal relationships between variables within belief systems as reported by individual respondents. However the use of this technique was extended to describe the characteristics of social systems (Russell, 1999). Cognitive maps are identified as a viable way of both examining the cognitive structures of entrepreneurs and undertaking the differences between entrepreneurs and corporate entrepreneurs in their cognitive structures (Brännback & Carsrud, 2009).

The cognitive maps were transformed into tables for appropriate use in the analysis and discussion chapters. The analysis used classic content analysis and word count techniques (Ryan & Bernard, 2000).

The discussion compared the results and findings from the data analysis with the relevant academic literature, using practice-based theory. Practice-based theory converts the participants' narratives into academic theories (Rae, 2004b).

This innovative research methodology does not follow one specific qualitative methodology technique (as case study or grounded theory research). Rather, it is a combination of qualitative and quantitative techniques that are used to strengthen the results of the research. As this is an exploratory research project, this methodology seemed most appropriate, even though it is not common.

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This technique spreads the main themes on paper as a base for the map (Buzan & Abbott, 2005). To simplify use in the analysis, the cognitive maps were converted to tables.

After categorising the data, the analysis used classic content and word count techniques (Ryan & Bernard, 2000).

FINDINGS AND DISCUSSION

The questionnaire was sent to 300 entrepreneurs and intrapreneurs in Australia, with a participant rate of 9%. Of the 23 participants that answered the online survey, 19 provided their details for further interviews. Of the contacted respondents, 12 were available for interviews. A control group of 4 habitual entrepreneurs, which experienced failed ventures, were identified and the same structured interviews were conducted. The responses from the control group integrated well with that of the other face-to-face interview respondents, adding to validity and reliability. Eighteen males and six females, aged between 25 and 64, answered the questionnaire, three of the participants failed to identify their gender and age.

The majority of the entrepreneurs and intrapreneurs who participated in the study are habitual entrepreneurs (22 of 24). Of the four inexperienced entrepreneurs and intrapreneurs, one is a novice entrepreneur in his first year as a business owner / manager, one has had his business for five years and two have been managing their business for nine years. Only one of these more experienced entrepreneurs stated that he purchased seven businesses prior to owning his current business, though this is the first business that he had started from scratch. As this is their first venture / business, these novice entrepreneurs have not experienced venture failure.

Two questions define if the participant is an entrepreneur or an intrapreneur. Question number 7 asks about the current business and question 31 asks regarding their entire endeavour. This study defined entrepreneurs and intrapreneurs regarding their entire endeavour. Therefore, we had 17 entrepreneurs and 7 intrapreneurs (3 participants did not answer these questions).

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New Venture and Business Failure Definition, as Perceived by the Participants

There is no consensus in the academic on one common definition for business failure (Pretorius, 2009; Watson & Everett, 1993). Likewise, the participants in this study addressed business and new venture failure from different perspective. In addition to common definitions of business failure, the participants in this research used definitions that were identified as causes of failure in the academic literature. Furthermore, the academic literature does not differ between business failure and new venture failure, suggesting that new venture is equal to a business (as in the case of start-ups). However, as the current research targeted entrepreneurs and intrapreneurs and distinguished between new ventures embedded in a mature business and new ventures that are the business (start up), it seeks to observe if there is a difference in their failure definitions.

Most of the entrepreneurs that participated in this study did not distinguish between business failure and new venture failure. They have defined failure through financial reasons, as bankruptcy, closure for financial reasons, profitability or cash flow. This seems reasonable as in their case the venture is the business, therefore when the venture fails financially the entire business fails financially.

However, the intrapreneurs that participated in this study differentiate more clearly than the participating entrepreneurs between new venture failure and business failure. They defined business failure as a business that is not managed properly while new venture failure was defined as a venture that does not grow.

It is interesting to see that entrepreneurs defined success and failure as opposites. They defined a successful business or new venture as a business or new venture that make a sustainable profit, and a failed business or new venture as a business or new venture that did not make a profit.

Intrapreneurs, on the other hand, defined business success and failure as two different things, as if not on the same continuum, while defining new venture failure and success as opposites. They have defined a successful business as a business that achieved its goals,

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whereas a failed business is a business that was not managed properly. New venture success and failure are defined by meanings of growth.

This confirms proposition 1 that suggested that entrepreneurs perceive business and new venture success and failure as identical, while intrapreneurs differ between them.

Entrepreneurial Learning

In the literature review, we defined learning as "the creation of knowledge that leads to behavioural change". The creation of knowledge is based on the experience that entrepreneurs and intrapreneurs gain in their ventures, regardless if it is a venture in an existing business or a stand-alone new venture.

Entrepreneurial learning was confirmed by three indicators. The first is the participants' self-assessment of their change in knowledge, which is in agreement with Mumford's (2002) learning definition. Therefore, the participants in this study were asked to rate their success as managers while managing their failed venture, between one (unsuccessful) and five (successful). In addition, they have self evaluated the change in their skills as result of their experience in the failed new venture and or business. Therefore, the participants were asked to rate the change of their skills as result of the failing new venture.

Most of the entrepreneurs and intrapreneurs stated that their skills have improved, as shown in Table 3. The change in skills confirms that the participants learned from the failed new venture. The participants that rated themselves as unsuccessful managers (rated 1 or 2), rated their managerial skill as much better, all rates were 4 or 5, these entrepreneurs show the highest level of learning.

When asked to rate their managerial skills during the time they have managed the failing venture, half of the participants rated their skills as 3. None of the participants rated their managerial skills as 5. This can result from the entrepreneurs and intrapreneurs feeling that if their venture has failed, they cannot be good managers.

The second indicator that demonstrates learning was based on Cannon and Edmondson's (2005) learning cycle, which is established in this study by the combination of decisions

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regarding failure (identify failure), decision reasoning (analyse failure) and experiences that the participant sees as useful for, or will avoid, in their next venture (as a result their next venture will become a deliberate experimentation by this learning definition).

The third indicator of learning was reinforced using experiential learning (Mainemelis, Boyatzis, & Kolb, 2002). Experiential learning was demonstrated here by verifying the connections between the experiences that the participants found either useful for, or detrimental to, their next venture (the experience in the experimental learning) and the suggestions they gave to nascent and novice entrepreneurs and intrapreneurs (transforming experience into knowledge)

Participants in this study agreed that they learn from every experience in a new venture, whether it be a good or a bad experience, and this learning helps prepare for their next venture. This type of statement confirms proposition 1 as it observes new venture failure as a learning experience, and therefore it can be identified as part of their learning curve.

Furthermore, one participant wrote "The experience (good and bad) from the previous venture is the most important aspect when going into a new venture. Each venture tends to be more successful. There is always wholesale knowledge acquired from 3rd parties, but this is probably only 10% of the benefit of my own lessons learned." Suggesting that learning from experience is the most important type of learning that he had.

Suggestion to Novice Entrepreneurs and Intrapreneurs

Based on their experience from failed and successful ventures, participants were asked to share their experience by suggesting what they would take with them to their next venture and what they would avoid. In addition, they were requested to share an experience that would help novice entrepreneurs and intrapreneurs avoiding new venture failure.

Two participants answered that they do not take any useful experience from one venture to the next, as each ventures is different. However, they did have experiences they would avoid in their next venture and suggestions to novice entrepreneurs and intrapreneurs. Therefore, although they may not be aware of it they did learn from their failed ventures.

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Learning from failed ventures will usually be formulated in a negative way. For example, if someone had a successful experience with his or her partners and team members, they will see it as a good experience to take with them to their next venture. However, they feel that the partners were the reason for their venture failure; they will describe it as an experience to avoid in their next venture. Either way, the learning that occurred from both experiences is the importance of finding suitable partners and recruiting member teams smartly. Therefore, the following list is a combination of all suggestions given by the participants in the study:

1. Be prepared –

    1.1. The entrepreneurs and intrapreneurs should be prepared to the reality that some ventures fail. They should detach themselves from the venture and search for fatal flaws in the planned venture before starting it. When finding the fatal flaws, the entrepreneurs and intrapreneurs should prepare a plan which contains details of how to avoid them.

    1.2. The entrepreneurs and intrapreneurs should not spend too much on building the venture before they have tested their idea and ensured that there is a real opportunity in it.

    1.3. The entrepreneurs and intrapreneurs should invest time in setting up the new venture and developing their product or service, as being first in the market is not always worthwhile. They should spend enough time and money on due diligence, and remember that bugs in the products can create bad impression.

    1.4. The entrepreneurs and intrapreneurs should conduct adequate market research, making sure that they know who their customers are and that their product or service solves the client's pain point.

    1.5. The entrepreneurs and intrapreneurs should assume that everything takes longer, costs more and is not always applicable.

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1.6. The entrepreneurs and intrapreneurs should have a good financial plan and ensure that they have sufficient funding to survive until sales produce a profit.

2. Personal

2.1. The entrepreneurs and intrapreneurs should believe in their venture, as others may try to discourage them. However, they should not let others influence them and should trust their own instincts.

2.2. The entrepreneurs and intrapreneurs should be persistent and not give up easily.

2.3. The entrepreneurs and intrapreneurs should not be over-optimistic and over-confident. They should be prepared to walk away, sooner rather than later, if they feel that the venture is not reaching its goals.

2.4. The entrepreneurs and intrapreneurs should focus only on those aspects that drive the business forward and avoid timewasters.

3. Management

3.1. The entrepreneurs and intrapreneurs should have clear goals, and write their business plan accordingly.

3.2. The entrepreneurs and intrapreneurs should not start too small, but with caution.

4. Team / Partnership

4.1. The entrepreneurs and intrapreneurs should avoid bringing in the wrong people. Hire quality staff and do not be afraid to hire smart people. Make sure they hire only staff they trust and do not worry about the costs.

4.2. The entrepreneurs and intrapreneurs should choose their partners carefully. They need to be able to complement each other and be able to work together in stressful times.

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5. Financial

    5.1. The entrepreneurs and intrapreneurs should be good at raising finance and avoid unnecessary costs.

    5.2. The entrepreneurs and intrapreneurs should know their break-even point and the profit margins they can allow themselves in order to stay in the business.

    5.3. The entrepreneurs and intrapreneurs should invest back in the business before giving dividends to stakeholders.

6. Learning

    6.1. The entrepreneurs and intrapreneurs should develop the required skills to manage a new venture.

    6.2. The entrepreneurs and intrapreneurs should not rely too much on professional staff. They should be able to understand basic financial statements, market research results and so on. They do not need to know how to write such documents but they need to know how to read them.

The entrepreneurs and intrapreneurs should perceive each venture as part of a learning journey. Therefore, they should accept any failure or success as a learning experience that will help them in their next venture. This list of suggestions demonstrates that experienced entrepreneurs and intrapreneurs can offer ways that will help novice and nascent entrepreneurs and intrapreneurs succeed in their first venture. These findings confirm propositions 3 and 4.

CONCLUSION

This study explored how entrepreneurs and intrapreneurs perceive new venture and business failure, suggesting that they observe it differently. While entrepreneurs did not distinguish between business and new venture failure and defined both through financial reasons, as bankruptcy, closure for financial reasons, profitability or cash flow.

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Intrapreneurs defined business failure as a business that is not managed properly while new venture failure was defined as a venture that does not grow.

Entrepreneurial learning can be understood in two ways, learning to behave as an entrepreneur and entrepreneurs' learning during their entrepreneurial career (Rae & Carswell, 2001). Understanding what can be learned from new venture and business failure can influence both types of learning.

Learning to behave as entrepreneurs – the experiences gained by practiced entrepreneurs and intrapreneurs from their failed ventures can be added to entrepreneurship courses in universities and colleges. The framework that was created here will help these nascent entrepreneurs and intrapreneurs to understand better the issues they will confront on their entrepreneurial journey.

Entrepreneurs and intrapreneurs' learning during their entrepreneurial career – by learning from another's failure, novice entrepreneurs and intrapreneurs may increase chances of succeeding in their first venture.

The study did not find significant difference between entrepreneurs and intrapreneurs' learning from new venture and business failure. Therefore, the previous list of suggestions is suitable for novice and nascent entrepreneurs and intrapreneurs.

Limitations and Future Research

There are several limitations to this study, which need to be taken into account. The first limitation of this study is not being able to generalise the results. The study included only Australian entrepreneurs and intrapreneurs. As the attitude towards new venture failure is cultural based (Cave et al., 2001; Landier, 2005; Lee & Peterson, 2000), the results are specific to technology-based entrepreneurs and intrapreneurs from Australia.

The second limitation is that this study relies on the entrepreneurs and intrapreneurs' perspective and self-assessment. This study asked the participants' estimation of how their skills improved, though this was not checked in an objective way that can confirm the change in their skills.

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The third limitation is the sample size. This study's data set came from only 19 entrepreneurs and 8 intrapreneurs. As this is an exploratory qualitative research project, this sample was sufficiently large to establish the importance of the study and to show that there is a gap to be filled in the entrepreneurial academic knowledge base.

This research established what 27 Australian entrepreneurs and intrapreneurs learned from their failed ventures. This is an exploratory qualitative research project. A future study should expand the research into a quantitative study and ensure that the findings can be generalised.

While analysing and discussing the results of this research, further questions arose:

- Whether the respondents thought that the learning they specified can be used in future ventures by them and by others
- Is the entrepreneurial leap a myth and if attempted, would lead to failure?
- What, then, is the environmental isotropy?
- Can "be prepared" and "have clear goals" then mean the learning that the 'effectual' control of means along the start-up road would reduce chances of failure as claimed by the effectuation literature and counter to Stevenson's 'essence' of entrepreneurship "as the willingness to pursue opportunity regardless of the resources under control" (Stevenson & Jarillo, 2007)?
- Would accepting the suggestions, given by experienced entrepreneurs and intrapreneurs, reduce chances of failure?
- What are the "managerial required skills" the entrepreneurs and intrapreneurs should develop before managing a new venture?

These questions are important and should be addressed in future research.

As the attitude towards business and new venture failure is culturally-based (Cave et al., 2001; Landier, 2005; Lee & Peterson, 2000), it is important that future research includes

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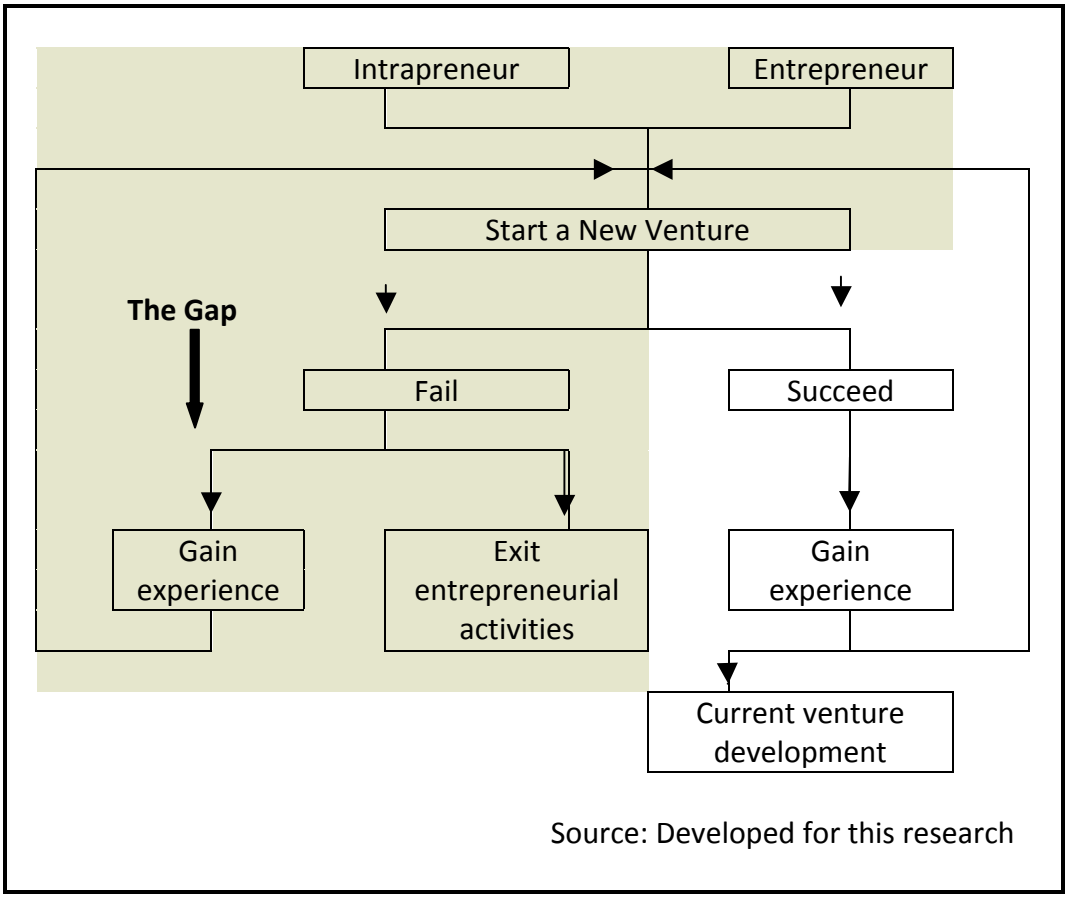
entrepreneurs and intrapreneurs from different countries, and by doing so add cultural differences to the framework.

The next step, after generalising the findings from this study, is to create a framework that will help novice and nascent entrepreneurs and intrapreneurs to learn from experienced entrepreneurs and intrapreneurs, and succeed in their first venture.

Appendices

Appendix 1: Tables and Figures

Figure 1: Conceptual Model



Source: Developed for this research

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Table 1: Intrapreneurs and Entrepreneurs, Similarities and Differences

	Entrepreneur	Intrapreneur
Similarities	• Requirement that the entrepreneur will be able to balance vision with managerial skills, passion with pragmatism, and pro-activeness with patience • The entrepreneurs encounter resistance and obstacles, necessitating both a sense of perspective and an ability to formulate innovative solutions • The entrepreneurs need to develop creative strategies for leveraging resources • Activities involve significant ambiguity • The entrepreneur must be able to recognise opportunities • Leaders who have a vision for creating something new of value and wealth	
Differences	• Take the entire risk • Entrepreneur owns all or part of the venture • Motivation may come from need for independence and / or exploiting an opportunity • Timing pressure is market driven • May need to change life-style by leaving present career • Potential rewards for the entrepreneur are theoretically unlimited • More independent, although should be backed by a strong team • Little security • No safety net • Few people to talk to	• Career-related risks • Entrepreneur may have no equity in • the organization • Motivation may be related more to exploiting an opportunity • Time pressure is corporate driven (for example performance review cycles) • Keeping current career • Clear limits are placed on the financial rewards entrepreneurs can receive • Interdependence of the champion with many others; may have to share credit with any number of people • Job security • Dependable benefit package • Extensive network for bouncing • around ideas

Source: Adapted from Hisrich (1990) and Morris et al. (2008: 34)

Table 2: Change in Skills

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Change in Skills		1-Worse	2	3	4	5-Better
Managerial	Planning the business	0%	10%	0%	30%	60%
	Developing business networks	0%	0%	30%	30%	40%
	Establishing systems	0%	10%	20%	20%	50%
	Identifying new opportunities	0%	10%	20%	30%	40%
	Dealing with setbacks	0%	20%	20%	40%	20%
	Self-management	10%	0%	40%	20%	30%
	Adapting to change	0%	10%	40%	10%	40%
Financial	Financial record keeping	10%	0%	30%	30%	30%
	Raising finance	10%	20%	30%	20%	20%
	Monitoring performance	0%	10%	30%	30%	30%
Adding Value	Team leadership	10%	10%	30%	30%	20%
	Attracting / retaining staff	0%	20%	50%	0%	30%
	Building a customer base	10%	0%	40%	30%	20%
	Researching the market	0%	10%	20%	30%	40%
	Promoting products/services	0%	10%	20%	20%	50%
	Targeting customers/clients	0%	0%	30%	40%	30%

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Table 3: Summary of Entrepreneurs' Learning Definition

	Kolb (1984)	Cohen and Levinthal (1989)	Huber (1991)	Gibb (1997)	Deakins and Freel, (1998)	Minnity and Bygrave (2001)	Rae and Carswell, (2001)	Mainemelis, Boyatzis, & Kolb, (2002)	Baurmad and Starbuck (2005)	Cope (2005)	Corbett (2005)	Harrison and Leitch (2005)	Politis (2005)	Rae, (2005)	Rerup (2005)	Schildt, Maula and Keil (2005)	Pittaway and Cope (2007)	Wang (2008)	Chandler and Lyon (2009)	Holcomb, Ireland, Holmes and Hitt (2009)	Politis and Gabrielsson (2009)
The process of changing experience into knowledge	X							X			X		X								X
Enquire new knowledge, including skills and specific competencies				X														X	X		
Updating a subjective stock of knowledge accumulated on the basis of past experiences		X				X															
A potential for behavioural change			X																		
Knowledge creation												X									
Making meaning from experience							X														
Constructing meaning through contextual experience to create new reality														X							
Search for new technological and business opportunities and ways to capture those opportunities with adaptive and more risk-averse learning that leverages existing knowledge.																X					
The process of repeating what they do well and learn from failure by changing or abandon what they did poorly															X						
Learning experienced by entrepreneurs during the creation and development of a small enterprise										X											
A combination of knowledge and reaction to critical events					X																
The process by which entrepreneurs acquire knowledge from direct experience and from observing the behaviours, actions and consequences of others																				X	
Learning that occurs during the new venture creation process																	X				

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IS THE WORLD OF VENTURE CAPITAL INVESTORS TURNING FLAT? PERSPECTIVES OF RADICAL STRATEGIC CHANGES IN HIGH-TECHNOLOGY NEW VENTURE

Eyal Benjamin[a], Eli Gimmon[b] and Liora Katzenstein[a]
[a]Swinburne University of Technology, Melbourne, Australia
[b]Tel-Hai College, Upper Galilee, Israel

ABSTRACT

High-technology new ventures (HTNVs) usually operate in a dynamic environment, with high levels of uncertainty; therefore they often require radical changes in strategy. The perspective of venture capital investors (VCs) – the main source of funding for HTNVs – towards radical changes in strategy (RSC) is therefore crucial to the understanding causes of radical strategic change in these new ventures. This paper examines the effect of cultural differences on the approach of VCs to RSC. A mixed-method methodology of semi-structured interviews was employed to compare Israeli with non-Israeli investor groups. Most of the investors agreed that radical strategic changes are likely to occur in new ventures, but they did not consider them to be favourable events. While previous research suggested that cultural differences should be expected, our findings surprisingly indicated limited cross-cultural differences among the VCs. Unlike the non-Israeli investors, the Israeli investors deemed RSC events to be influenced significantly more by internal causes than by external ones. Based on the findings, we conclude that VCs from different developed countries share fairly similar views of RSC in HTNVs. A possible explanation of this lack of difference might be the comparatively small VC community and globalization of the high-technology venture markets.

Keywords: Venture capital • High-technology new ventures • Strategic change • Cultural differences • Israel

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INTRODUCTION

In recent years the high-technology industry has adopted a global orientation, with technologies designed in one country made to fit users in many others. The venture capital finance industry, traditionally dominated by US firms, appears to be following the globalization trend, with European and Asian VC firms joining the industry (MacMillan et al. 2008). However, the 2008 Global Entrepreneurship Monitor (GEM) report asserted that early-stage entrepreneurial activities vary across countries (Bosma et al. 2009), with the highest adult-population prevalence rates of high-growth expectation entrepreneurs found in high-income countries such as the US, Israel, Iceland, and Canada. The findings of Lee et al. (2011) also demonstrated the role of culture in entrepreneurial orientation, indicating significant differences among the countries in most entrepreneurial orientation dimensions. The identification of country-specific entrepreneurial concepts can be useful for researchers of international entrepreneurship, as well as practitioners operating in different countries (Gupta and Fernandez 2009).

High-technology new ventures (HTNVs) are unique within the world of entrepreneurial ventures. They usually operate in a dynamic environment, characterized by high levels of uncertainty due to the newness of the technology, markets, and products involved. HTNVs are commonly expected to have high growth rates which are associated with various crises (Hanks et al. 1993). Following the resource based view of the firm, sometimes changes are to a level that "it is difficult to know how to organize a firm" (Alvarez and Barney 2005: 777). Due to the rapid change in emergent industries, and especially high-technology, new venture strategies must change in order to survive (Shepherd, Douglas and Shanley 2000). Radical strategic change (RSC) is a common event in HTNVs, marked by a conflict between a proposed new opportunity and the risk of departing from the planned and approved strategy (Farjoun 2007). The successful execution of strategic change is a rare achievement, and such change may have a crucial impact on organizations (Beaver 2003). Since venture capitalists are an important funding source for HTNVs, and are therefore involved in the strategy process of their portfolio companies (Sapienza and De Clercq 2000), their perspective along with their changed perspectives are crucial to understanding the causes of RSC in HTNVs.

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The effect of culture on the decision patterns and organizational behavior of VCs has been explored in different countries (Bruton and Ahlstrom 2003; Manigart et al. 2002; Morris et al. 2000; Sapienza et al. 1996; Wright et al. 2004). Most of the studies have examined the cultural aspects of venture capital by focusing on each specific country and outlining significant differences in investment activity between countries and between local and foreign VCs. However, cross-cultural research in the field of entrepreneurship is still in its infancy and underexplored (Engelen et al. 2009; Wright et al. 2005). In light of the tension between globalization pressures and the inherent localization of VCs (Iriyama et al. 2010) further research of the globalization of the venture capital industry is required.

Radical changes in strategy involve increased risk and are a common source of friction between investors and company management. The question arises of whether cross-country cultural differences are reflected in the attitudes of venture capital investors towards RSC. Israel is well known for its HTNV industry, as well as high entrepreneurship levels (Senor and Singer 2009). However, it is relatively small, homogeneous, and culturally distinct in comparison with other developed countries. Drawing from previous research on the subject, this study compares the perspectives of private investors in Israel with those of non-Israeli investors regarding RSC.

We examine the cultural perspectives of high-technology investors by looking at their perceptions of the causes of RSC in their portfolio companies. This will contribute to the underexplored field of the attitudes of VCs from different cultures towards strategic changes (Pettigrew et.al. 2001; Alvesson and Sveningsson. 2007).

LITERATURE REVIEW

Venture capital investors

The foundations of the venture capital industry in its current format are often traced to 1946, when United States Brigadier General Georges Doriot, recognizing the need for risk capital, created ARD (American Research and Development Corporation) to supply it. The development of the venture capital industry in the United States was encouraged by legislation of the Small Business Investment Act of 1958, which allowed the US Small

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Business Administration (SBA) to license private "small business investment companies" (SBICs) to help finance and manage small enterprises in the United States. The public success of the venture capital industry in the 1970s encouraged the proliferation of venture capital investment firms. During the 1980s, due to factors such as changes in finical regulations, the number of VCs operating in the United States surged to over 650 (Florida and Kenny 1988; Gompers and Lerner 2004; Kenny, 2000).

American firms have traditionally been the largest participants in venture deals. In 1996 the United States venture capital pool was about three times larger than the total venture capital pool in the 21 other countries where it existed. Moreover, about 70% of the venture capital in the rest of the world was concentrated in three countries with strong ties to the United States economy: Israel, Canada, and the Netherlands (Jeng and Wells, 2000). Some may argue that countries with strong bank financing systems, like Germany and Japan, have less need for venture capital, but research has demonstrated the inherent differences between venture capital investments and bank finance (Mason and Stark 2004). In recent years non-United States venture investment has been increasing steadily, as has the number and size of non-United States venture capitalists. The European venture capital industry seems to be following the pattern of its US counterpart (Morris et al. 2000), with rapidly increasing awareness, size of investments, and number of exits (European Private Equity and Venture Capital Association website; MacMillan et al. 2008). A similar phenomenon is also indicated in Asian countries such as Singapore, Taiwan, and China (Bruton and Ahlstrom 2003). In light of the United States' example, policy makers believe that venture capital should be encouraged, because of its association with the development of high-technology industries and national economic growth (Timmons and Spinelli 2009).

Cultural aspects of new ventures

Following Hofstede's (1991) comprehensive examination of the effect of culture on organizational behavior, numerous researchers have explored the patterns of VC decision making in different countries. However, in contrast with Hofstede (1991), the studies that focus specifically on the cultural aspects of venture capital have generally been limited to

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consideration of specific countries without comparisons between cultures. Paruthi et al. (2003) compared India-based VCs with foreign VCs, outlining major differences in investment activity between the two groups. Their findings corroborated those of Lockett et al. (2002), who compared investment approaches of VCs in the United States, Hong Kong, India, and Singapore, and those indicated by Morris et al.'s (2000) investigation of the South African VC community. Mayer et al. (2005) concluded that neither financial systems nor sources of finance adequately explain the pronounced variation among different VC activities. However, Baughen and Neupert (2003) showed that cultural aspects are dominant in the entrepreneurial process, and the Global Entrepreneurship Monitor indicated that early-stage entrepreneurial activity varies across countries (Bosma et al. 2008). In a general business context, organizational behavior is expected to vary among countries due to different national cultures (Hofstede 1991; Ronen 2007). Based on their previous research, it seems reasonable to expect a difference in the attitudes of private investors to strategic events in their portfolio companies, corresponding to the VC's country of operation. Culture has a major impact on the executive mindset, as demonstrated by the findings that executives from different cultural backgrounds vary in their attitudes to change in organizational strategy, leadership profiles, and perceptions of strategic issues (Barr and Glynn 2004; Geletkanycz 1997).

The avoidance of uncertainty is one of the cultural attributes measured by Hofstede (1991) and House et al. (2004) as an indicator of managerial resistance to change. Members of high uncertainty avoidance cultures tend to prefer a more solid structure, together with clear rules and standardized operating procedures (Hofstede, 1991; House et al. 2004). In comparison, executives with a cultural background characterized by low uncertainty avoidance values are more comfortable with instability (de Vries and Miller 1986; Hambrick and Brandon 1988).

Strategy in HTNVs

Business strategy is one of the major factors affecting new venture performance (Baum et al. 2001; Chrisman et al. 1998; Gartner et al. 1999; Vesper 1990). Business strategy could be described by numerous definitions while Andrews (1971) is credited for being first to

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define strategy formulation as a process of aligning firm capabilities and constrains with environmental opportunities and threats. Mintzberg et al. (2003) focused on firm dynamics which aligns the organization resources and capabilities with the environment, aiming at sustainable competitive advantage. High-technology new ventures face a broad range of strategic technological alternatives. Since technology markets play a role in strategy formation, this process appears to be particularly complex (Arora et al. 2001; Mathewes 2003). Venture capitalists (VCs) have also been found to consider strategy as a major investment criterion. Focusing on strategy aspects, Shepherd et al. (2000) found that the most important strategy-related criterion as considered by VCs in their assessment of new venture profitability is founders' industry-related competence, followed by educational capability (resources and skills available to overcome market ignorance by means of education), competitive rivalry, and timing.

While at a given time some factors such as market regulation and industry structure are fixed, the strategy of a new venture is constantly subject to change. The founders of a new venture present an initial strategic direction, which puts a constraint on subsequent changes in strategy (Boeker 1989). Therefore the entrepreneurial-strategy formation process can be regarded as either a "planned strategy" or an "emergent strategy" (Harries et al. 2000).

In cases where small incremental changes are insufficient, the top management team may decide on RSC and re-establishment of the new venture's business strategy. Changes in business orientation are generally classified by magnitude, that is, incremental vs. dramatic (Miller et al. 1984: 203), or incremental vs. radical (Ginsberg and Abrahamson 1991), where radical changes involve business state and pattern. Rajagopalan and Spreitzer (1996: 49) defined strategic change as "a difference in the form, quality, or state over time in an organization's alignment with its external environment, the fundamental pattern of present and planned resource deployments and environmental interactions that indicates how the organization will achieve its objectives." Hopkins (1987) described strategic change as "radical" rather than "ordinary" if it combined three distinct factors: (1) a significant departure from the organization's former way of doing business; (2) far-reaching effects; and (3) the generation of uncertainty and insecurity among

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organizational members. Despite the differences, researchers agree that a radical change in strategy is an outstanding event in a venture, worthy of scholarly attention in its own right.

Substantial theoretical and empirical work has been conducted regarding strategy changes in mature organizations (e.g. Gioia and Chittipeddi 1991; Rajagopalan and Spreitzer 1996; Stacey, 1995). In addition, cultural aspects such as uncertainty avoidance have been found to influence strategic decision made by top management teams (TMT) and strategy change factors (Corley 2004; Papadakis and Barwise 2002; Schwartz and Davis 1981). However, the research of strategy change in new ventures still leaves an area uncovered (Nicholls-Nixon et al. 2000).

Venture capitalists and RSC

The procedures by which VCs assess the survival and competitive advantage of new ventures are largely consistent with those arising from the strategy literature (Shepherd 1999). Investors in new ventures are highly involved in business strategy formulation (Ehrlich et al. 1994), and may consider increasing their involvement and leading radical changes in strategy as an alternative to venture shutdown (DeTienne 2010; Wennberg et al. 2010). Nevertheless, VCs are generally expected to dislike RSC; they may deem changes to be potentially risky for organizations (Beaver 2003; Hannan and Freeman 1984; Hopkins 1987), or feel attrition of the initial appeal of the organization due to such changes, causing them to leave (Schneider 1987).

Due to the fast pace of change in emergent industries, and especially in high tech, new venture strategies require changes in order to survive:

Venture capitalists can assess a venture's strategy and projected environment via a business plan, but this only provides the strategic intentions behind the venture. Plans almost certainly will not turn out as predicted, and the environment faced by a venture will not be as anticipated and may change frequently. Performance will deteriorate if changes in the environment are not detected by the entrepreneur(s), if strategies are not

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reassessed, and if new strategies are not formulated and implemented. (Shepherd, Douglas, and Shanley 2000: 399)

Research has shown that better understanding is needed about how investors assess a new venture's strategy (Shepherd, Ettenson, and Crouch 2000). Thus, the post-investment activity of VCs in their portfolio companies is a fertile area for research (Tyebjee and Bruno 1984: 1054). Investors' attitude towards RSC can be explored based on decisions made prior to or during execution of the RSC. Following Rajagopalan and Spreitzer (1996), the focus of this study is on the content of strategic change rather than on the process of its implementation.

Causes of strategic changes

Environmental changes may require changes in strategy, but the firm's resources affect the likelihood and the magnitude of these changes. Ecology and strategy researchers have traditionally differed in their respective emphases regarding the phenomenon of strategic change: ecologists have stressed that change should be rare, because organizations find change very difficult and undesirable, but strategists have argued that change should be more common because organizations can and should adapt (notwithstanding the difficulties) to their changing organizational and environmental conditions (Zajac et al. 2000: 450). One way to estimate the frequency of RSC in high tech industries is to ask VCs whether they find RSC to be a rare event in their portfolio companies.

Events causing RSC are commonly referred to as "environmental changes" (e.g. Bhide 1994; Kraatz and Zajac 2001; Rajagopalan and Spreitzer 1996). They are also viewed as "changes in the strategic 'recipes' or 'formulae' that managers use to construe their environment," which are advocated internally by new members of the top management team or externally by management consultants (Ginsberg and Abrahamson 1991: 174). Zajac et al. (2000) found that the timing, direction, and magnitude of successful strategic changes can be logically predicted on the basis of environmental forces and organizational resources.

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Miller and Friesen (1984: 28) asserted that organizations "reinforce or extend their past structures and strategy-making practices, adhering to previous directions of evolution." Such momentum also applies to recurrent changes that have been experienced in the past. In other words, while faced with environmental changes, organizations continue to extrapolate past trends. Furthermore, according to Papadakis (2002: 90), in addition to the effect of the external environment, top management teams influence the strategic decision-making process. Presenting a different angle, Nicholls-Nixon et al. (2000) proposed that the level of perceived environmental hostility affects the level of strategic change undertaken in new ventures. Still, the causes for these changes might be internal (the company) or external (the environment), a factor that may also influence the investor's attitude towards RSC.

This study explores the views of investors in HTNVs in different countries regarding the causes of RSC in their portfolio companies. House et al. (2004: 622) and Hofstede (1991: 151) ranked Israel as low on the uncertainty avoidance index. Such a cultural perspective that allows high levels of uncertainty may indicate a relatively high propensity for change.

Hypothesis 1: RSC events are more likely to occur in Israeli HTNVs than in non-Israeli HTNVs.

The high-technology industry is considered to be a highly turbulent environment where RSCs are likely to be driven more by environmental (i.e. external) causes than by internal ones (Farjoun 2007). Furthermore, in light of the "culture-free" structural characteristics of HTNVs (Engelen et al. 2009), environmental conditions may have the same effect in countries characterized by different cultures.

Hypothesis 2:

(a) RSCs in HTNVs will be initiated more by external rather than internal causes.

(b) Israeli HTNVs will not differ from non-Israeli HTNVs in terms of the division between internal and external causes of RSC.

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METHODOLOGY

The issue of strategic change can be explored at the micro and macro levels. Based on Meyer et al. (1990) and Scott (2000: 7), we shifted away from the individual organization level to the industry level and focused on the portfolios of VCs. The top-level view of the HTNV industry is that of the venture capital investors that are involved in firms of this type. The investors' view of strategy changes in new ventures was obtained by means of a mixed-method survey (Johnson and Onwuegbuzie 2004), to enable understanding and representation of the experiences and actions of people as they encounter, engage, and live through situations (Elliott et al. 1999: 216). This view of RSC was explored by qualitative analysis of textual data, as well as attitudes and views expressed by the interviewees. The research procedure, based on mixed-method methodology (Morgan 1998: 370) consisted of two main stages: we first conducted an exploratory qualitative study of 16 investors, and then performed quantitative analysis of the 59 reports of RSC events. This approach is especially recommended for research in the field of entrepreneurship when seeking "concepts that enhance the understanding of social phenomena in a natural setting, with the emphasis on the meanings, experiences and views of all participants" (Neergaard and Ulhoi 2006: 4).

Following Wright et al. (2004), we selected a multi-country sample of HTNV investors in order to compare cultural attributes. The study focuses on the venture capital industry in Israel, which currently includes 42 venture capital funds (High-Tech Industry Association 2008). It is relatively small and homogenous, but is considered significant in the global context (Senor and Singer 2009). According to the Globe survey, Israel is classified in the Latin Europe cluster, together with Italy, Portugal, Spain, France, and Switzerland (House et al. 2004: 32), and rated in band C in terms of uncertainty avoidance (House et al. 2004: 622). We compared Israel with other developed countries that belong to different clusters and are rated with higher levels of uncertainty avoidance (bands A or B).

The sample was comprised of 8 investors of different venture funds that operate in Israel and 8 investors that operate in 6 other countries: USA, UK, Norway, Singapore, Korea, and Taiwan. The latter (foreign) 8 investors were somewhat familiar with the Israeli

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venture industry, although they operated in their home countries. In order to control for national growth (following the GEM report; Bosma et al. 2008) and create a homogenous cohort, all 7 countries of operation chosen were developed economies. The selected investors operated in different high-technology sectors such as software, medical devices, and digital signal processing. Out of the 16 interviewees, 5 were business angels and 11 were VCs, since these two types of investors represent similar attitudes (Mason and Stark 2004). All the selected investors had been engaged in early-stage high-technology investments for at least two years prior to the interview, reporting an aggregate of 82 early-stage investments out of 89 investments made during the last two years.

Data were collected from the investors by means of semi-structured interviews, conducted in Hebrew or English. The interviews were taped and later transcribed and tabulated, in order to compare the responses of all interviewees, as recommended by Myles and Huberman (1994). Patterns were sought in the data by looking for consistencies and inconsistencies in the attitudes the VCs espoused before and after the presentation of results from previous research. The interviews were analyzed using NVivo software (Richards 1999), marking and cross-referencing statements made throughout the interviews. Two independent coders classified the phrases describing the causes of RSC into either internal or external factors. The Cohen Kappa test on levels of disagreement indicated very good agreement between the coders (Kappa value 0.828). The coders then discussed the differences and created an agreed classified list of causes, except for one phrase, which was therefore excluded from the sample analysis.

The questions were designed to reveal the attitudes of investors to RSC, including the importance they ascribed to strategy as an investment criterion (Fried and Hisrich 1994; Sandberg et al. 1988; Shepherd 1999; Tyebjee and Bruno 1984). The interviewees were also asked about their perception of the causes of RSC and the frequency (or rarity) of their occurrence in their portfolio companies. At first, the interviewers asked the investors open-ended questions about the reasons for strategic change and their attitudes toward this phenomenon. Later, the findings of previous research were presented, and the VCs were asked for their views again.

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RESULTS

The data analysis began with determination of whether the investors considered RSC to be a rare event. In the 16 conducted interviews, the respondents classified 32 of the 82 early-stage investment cases as RSC events such as change in the business model or shifting to a different market. Only one of the respondents indicated that she/he had not encountered even one RSC in his portfolio companies. The findings also indicated that the number of RSCs encountered in early-stage investments ranged from 0% (1 respondent) to 100% (2 respondents) of all cases, with an average of about 40% of investments and a mode of 50% of investments having experienced an RSC (see Table 1).

Next, a comparison was made between the Israeli and non-Israeli investors, in order to examine the possibility of cultural perspective. The overall percentage of RSCs relative to the total early-stage investments was in the range of 40%. The figure for the non-Israeli investors was approximately 45%, while the Israeli investors reported an average of 35% RSCs in their portfolio companies. A two-tailed t-test was used to compare the two independent sample means, producing a t-test critical value of 2.144 ($p = 0.05$). The t-test yielded a t value of -1.068 with a degree of freedom of 14. This confirms that there is no statistically significant difference between the mean number of RSCs of non-Israeli investors and that of Israeli investors, since the test statistic $|-1.068|$ does not meet or exceed the critical value of 2.144 for a two-tailed t-test.

A chi-square analysis, including Yates' correction for a single degree of freedom (Yates 1934), yielded a significant chi-square statistic: $\chi^2(0.05) = 0.561$, ($p > 0.05$). This indicates that the subsamples of investors by country and number of radical strategic changes by country were statistically independent.

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Table 1: Characteristics of interviewees

Code	Type[a]	Country	Number of early-stage investments	Number of RSC events	Investment field
A1	BA	UK	3	2	Optical
A2	BA	USA Israel	4	2	Diverse portfolio
A3	BA	Singapore	1	1	Industrial high tech
A4	BA	USA	10	5	Medical devices, medical services
A5	BA	Israel	1	1	Biotechnology, digital signal processing
VC1	VC	Israel	6	3	Industrial high tech
VC2	VC	Israel	2	3	Software
VC3	VC	Europe USA	5	1	Biotechnology, clean technology
VC4	VC	Korea	2	0	Information technology, biotechnology
VC5	VC	Israel	4	3	Information and communication technology
VC6	VC	Israel	10	1	Diverse portfolio
VC7	VC	Israel Taiwan	5	3	Software, semiconductors, medical devices
VC8	VC	Israel	5	1	Information technology, software
VC9	VC	Israel	7	2	Internet, new media
VC10	VC	Israel	11	3	ICT, clean tech
VC11	VC	Norway	3	1	Diverse portfolio
Total			82	32	

[a] BA = business angel; VC = venture capital firm

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Table 2: Investors' reports of RSC, by country

Investor subsamples by country	Number of early-stage investments	Total number of RSC events	Rate of RSC events out of total early-stage investments	Mean number of RSC events	Standard deviation
Non-Israeli (n = 8)	33	15	45.5%	1.875	1.553
Israeli (n = 8)	49	17	34.7%	2.569	0.981
Total:	82	32	39.0%	2.000	1.265

In order to evaluate the importance of venture strategy from the investors' perspectives and its correlation with the findings regarding RSC, we asked the respondents to rank the role of strategy in their consideration of investment criteria. When presented with six investment criteria, they gave "business strategy" a relatively low score: between fourth and fifth place (see Table 3). Only one business angel and one VC ranked it as the second most important investment criterion. A small difference in this respect was found between country groups, with Israeli investors ascribing greater importance to business strategy as an investment criterion relative to the non-Israeli investors. However, due to the small sample size of 16 interviewees, the difference was not tested for significance.

Table 3: Strategy as an investment criterion

	All investors	Non-Israeli investors	Israeli investors
Mean	4.5	3.3	5
STDV	1.62	1.21	1.39
Mode	6.0	2.0	6.0
Min	7	5	7
Max	2	2	3

To explore the investors' views regarding the causes of RSC, 59 phrases were tagged in the transcripts of the 16 interviews and then classified. Table 4 presents the principal phrases used by the interviewees, as classified into the four categories by the coders.

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Analysis of the perceived causes revealed that more events were attributed to internal causes than external ones (37 vs. 22). A two-tailed z analysis indicated that in the overall sample (Israeli and non-Israeli cases), internal events were more common than external events in causing RSC in HTNVs, though the difference between internal and external causes is marginally significant ($z = 1.95$, which is smaller than 1.96; $p = 0.05$).

Table 4: Examples of perceived causes of RSC in high-technology new ventures

	Internal (37)	External (22)
Israeli	• "Identifying alternative or additional sources of revenues" • "Key personnel change position" • "The technology was not adequate" • "Lack of trust in the "old" business model"	• "Change in the funding environment" • "The market was found to be saturated with similar products" • "New competitors entered the target market"
Non-Israeli	• "Wrong assumptions about market trends" • "The company did not meet their sales forecast" • "Venture's financial situation"	• "Market environment change such as reduced demand" "Government policy easing regulations" • "Change in the value chain"

Comparison of the causes for RSC as perceived by Israeli and non-Israeli investors, respectively, revealed that among the Israelis, internal events were found to be a stronger motive for RSC than external events (see Table 5). A two-tailed z analysis indicated that in the Israeli sub-sample, internal events had significantly greater perceived influence on RSC in the venture than external events did ($z = 2.33$, which is higher than 1.96; $p = 0.05$).

An additional two-tailed z analysis indicated that in the non-Israeli sub-sample, internal events had greater perceived influence on RSC than external ones, but not to a significant degree ($z = 0.38$, which is lower than the threshold of 1.96; $p = 0.05$).

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Table 5: Perceived causes of RSC: Israeli vs. non-Israeli investors

	Internal	External	Total
All	37	22	59
Israeli	22	9	31
Non-Israeli	15	13	28

DISCUSSION

The findings of this study do not support most of the hypotheses that were formulated on the basis of previous research.

Hypothesis 1 – RSC events are more likely to occur in Israeli HTNVs than in non-Israeli HTNVs – was not supported. Actually, the non-Israelis reported higher percentage of RSC events relative to the number of investments in their portfolio companies than the Israeli investors did. However, the difference between the mean number of RSCs in the portfolios of non-Israeli and Israeli investors, respectively, was not statistically significant.

Hypothesis 2 (a) – RSCs in HTNVs will be initiated more by external rather than internal causes – was not supported. In fact, the opposite was found: according to the overall sample, internal events were more often (although with only marginal significance) the cause of RSC in HTNVs, compared with external events.

Hypothesis 2 (b) – Israeli HTNVs will not differ from non-Israeli HTNVs in terms of the division between internal and external causes of RSC – was not supported. The Israeli investors indicated significantly more internal versus external causes for RSC in comparison with the non-Israeli investors.

In summary, cultural differences between Israeli and non-Israeli investors were found to be significant with regard to only one of the three tested hypotheses: the Israeli investors perceived internal events as the cause of RSC significantly more than the non-Israeli investors, who showed no statistical bias towards internal or external causes. Contrary to expectations, no significant differences were found with regard to the other tested issue: the non-Israelis reported more (about 45%) RSC events in their portfolio companies than

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the Israeli group (which reported about 35% RSCs), but the difference between the two groups was not statistically significant. The Israeli investors ascribed greater importance to business strategy as an investment criterion compared with the non-Israeli investors; however this finding should be verified in a larger sample.

Based on these findings, we argue that attitudes of VCs towards changes in their ventures are quite similar across different cultures of developed economies. This conclusion supports Morris et al. (2000), who attributed the common views to the firm establishment of the roots of the VC community in the United States, and the fact that most global industry professionals continue to model themselves on the US community. Moreover, the prominent global characteristics of technological ventures may explain the apparently limited sensitivity to culture in the perceptions of these investors regarding RSC.

However, there is no consensus in previous research regarding the globalized trend of the VC industry. Meta-analysis of previous studies have demonstrated more cultural differences than similarities in the international VC industry (Wright et al. 2005). Similarly, Iriyama et al. (2010) found that cross-border VC flows have a subtly regional character, contrary to the implications of nation-level globalization. They further argued that the ongoing globalization of VC flows does not signify a flattening of the competitive landscape, and the locally bounded nature of venture capitalists' competitive advantage may still be operative. Based on our findings, we assert that the patterns characterizing the VC industry, as perceived by VCs in regard to HTNV strategy, is becoming flat, demonstrating less variation among different cultures or country-specific patterns. However, there are still some cultural differences, indicating that the world of venture capital investors is not yet completely flat.

The finding that Israeli VCs encountered fewer RSC events (though not to a significant extent) compared with their counterparts in the US, Europe, Singapore, Korea, and Taiwan, may be due to the Israeli investors' attitude toward radical changes. Although the interviewers defined "radical strategic change" as a major change, some Israeli VCs were more tolerant regarding changes made in their portfolio ventures, which they considered "normal" events. This explanation fits the expected national cultural differences

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(Hofstede 1991; House et al. 2004; Ronen 2007) between Israeli and non-Israeli management people. The reason for this may be the Israelis' expectation of higher uncertainty, since their start-ups are located at a distance from their target markets in the US, Europe, and the Far East. Furthermore, the large overall number of RSC events might be due to prior experience in performing RSCs. Aldrich (2006: 138) has shown that the likelihood of transformations increases with the number of prior changes. Since VCs are involved in the TMT of several startups, they are exposed to a larger number of RSCs, a situation that increases their propensity for future RSCs.

For practitioners, these findings mean that all investors, regardless of cultural background, should be ready for an RSC in their high-technology new ventures. Our findings support recent research indicating that RSC is not a rare event in new ventures. Furthermore, the current result that early-stage high-technology investors find RSC to be a highly common event contradicts the claim by Hannan and Freeman (1984) that such events are expected to be rare. Moreover, they also indicate that RSC is not as risky or costly as claimed by Hannan and Freeman (1984); in this study, only about half of the cases required additional funding. In light of the wide agreement among interviewees that RSC had a positive impact on the venture, it seems that the additional investment of funds would be justified. The awareness of RSC can be explained by the dynamic nature of new technologies and their impact on high-technology new ventures, features that are well known to stakeholders in this industry. This is in line with Schneider's (1987) ASA (attraction–selection–attrition) framework, which suggested organizations are not capable of changing unless they contain people with appropriate inclinations.

A common limitation of the mixed-method methodology employed in this study is the sample size. The qualitative analysis was based on 16 interviews, representing 82 early-stage investments. In order to expand the macro-level view provided in this study, further research of the micro view, using a larger sample of early-stage investments and a broader quantitative analysis, is needed to validate the findings of this study. Another limitation is the reliance on the investors' espoused investment criteria as coming out of their introspection, which may differ from their actual in-use criteria (Shepherd 1999; Zacharakis and Meyer 1998). Further comparative studies of multi-cultural views might

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reveal differences as well as similarities in the perspectives of investors from different countries and enhance the effectiveness of this global industry.

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ENTREPRENEURIALISM AND PHILANTHROPY

Christopher Baker[1] and Michael Moran
Asia-Pacific Centre for Social Investment & Philanthropy,
Faculty of Business and Enterprise, Swinburne University of Technology,
Melbourne, Australia
Corresponding Author

ABSTRACT

There has been little scholarly investigation into the relative propensity for entrepreneurs to participate in philanthropic endeavour, and whether entrepreneurs are inclined to adopt particular forms or approaches to their philanthropy. This article explores the extent to which extant international literature on giving by the wealthy has acknowledged and explored entrepreneurialism as influencing the propensity of the wealthy to give, and the extent to which it impacts on the nature of that giving. The authors conclude that there is a need for specific research into entrepreneurialism and philanthropy, and that such research needs to be sensitive to the national peculiarities of political, cultural and regulatory contexts.

INTRODUCTION

The ability of successful entrepreneurs to generate considerable wealth is manifest. As such, their capacity to contribute from their resources to projects and organisations with a specific social enhancement agenda is also apparent. This potential for successful entrepreneurs to enhance the quality of the society or societies in which they live and to become role models of philanthropic endeavour is exemplified by the recent

[1] Corresponding Author: Dr Christopher Baker, Asia-Pacific Centre for Social Investment & Philanthropy, Faculty of Business and Enterprise, Swinburne University of Technology, PO Box 218, Hawthorn VIC 3122, Australia. (T) +61 3 9214 8088, Email: chbaker@swin.edu.au

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commitments of two of the most high profile and successful entrepreneurs in the United States, Bill Gates and Warren Buffet. There has however been little scholarly investigation into the relative propensity for entrepreneurs to participate in philanthropic endeavour, and whether entrepreneurs are inclined to adopt particular forms or approaches to their philanthropy. This article explores the extent to which extant international literature on giving by the wealthy has acknowledged and explored entrepreneurialism as influencing the propensity of the wealthy to give, and the extent to which it impacts on the nature of that giving, what Frumkin (2006) has termed "giving styles".

Given the paucity of literature directly addressing entrepreneurialism and philanthropy, this article begins with an exploration of key contextual issues. It first addresses wealth and the place of entrepreneurs in order to provide a foundation for understanding some of the particular attitudinal influences on entrepreneurs to the wealth they generate. It then examines the literature on characteristics of risk, attitudes to saving, and perceptions of financial security that influence entrepreneurial behaviours. This article then looks at aspects of the history of entrepreneurial philanthropy, particularly in the United States (US), and at emerging forms of giving which are associated with entrepreneurial skills and approaches such as the strategic and venture paradigms. The authors note that the majority of the literature on entrepreneurs and giving is generated in the US where the history, culture and taxation of giving by the wealthy in particular are specific to that nation and therefore US related research findings may not be directly transferable to other nations. The authors conclude that in order to inform public policy settings in relation to charitable giving there is a need for specific research into entrepreneurialism and philanthropy, and that such research needs to be sensitive to the national peculiarities of political, cultural and regulatory contexts.

WEALTH AND ENTREPRENEURS

While giving by entrepreneurs in particular has not received a great deal of scholarly attention to date, giving by the wealthy more broadly has been the subject of analysis.

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Paul Schervish, a leading theorist in the field of philanthropy studies, pays little regard to the source of wealth where he argues (2003) that while people are generous across the economic spectrum, because a disproportionately large share of assets is held by the wealthy few, in practice the greatest volume and value of charitable gifts will inevitably come from high net worth individuals. Entrepreneurs do constitute a significant proportion of the wealthy. On a global level, the 2006 World Wealth Report (Cap Gemini Merrill Lynch 2006: 19) estimated the top three sources of wealth for the world's high net worth individuals to be: i) business ownership or the sale of a business (entrepreneurs) 37%; ii) income 24%; and iii) inheritance 18%. Earned wealth was reported to have grown much faster than inherited wealth, with the percentage of High Net Worth (HNW) individuals whose wealth was inherited decreasing from 2001 to 2006: in North America from 21% to 16%; and in Europe from 37% to 19%. The dominance of earned wealth as the primary wealth source is also apparent at ultra wealthy end of the spectrum where entrepreneurs are particularly well represented (Quadrini 1999; Cagetti and De Nardi 2008). In the United Kingdom (UK), the Sunday Times Rich List (2009) reported that while in 1989 three quarters of the list of the most wealthy 1,000 individuals or families in the UK had inherited their wealth, by 2009 the tables had been turned with the proportion that had created their own wealth increasing to three quarters.

It is important to note however that while there is a tendency to think of wealth to be either inherited or generated by entrepreneurial activity, the very high earnings levels of senior executives over recent decades produces a share of the very wealthy whose wealth is derived from those earnings. In the United States and other English speaking countries the increasing representation of executives amongst top income earners has been a characteristic of the 20th century which has gained additional momentum in recent decades (Piketty and Saez 2006). A local illustration of the exponential growth in top salary-earner income is that from 1992 to 2002 the remuneration of a typical executive in Australia's top 50 companies increased from 27 times the wage of an average worker to 98 times (Atkinson and Leigh 2006).

Using data from the Panel Study of Income Dynamics and the Survey of Consumer Finances in the United States, Quadrini (1999; 2000) has identified higher patterns of

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wealth generation and accumulation amongst entrepreneurial households. The three main factors identified as contributing to these heightened wealth accumulation tendencies amongst entrepreneurs are: i) the incentive to save the funds required to undertake entrepreneurial activity; ii) the incentive to avoid the costs of financial intermediation; and iii) "uninsurable entrepreneurial risk" (Quadrini 2000: 34). This risk factor is identified as a consequence of the high degree of income uncertainty associated with entrepreneurial choices relative to salaried occupations, and a consequential desire to save more for precautionary motives. This incentive to save more as a result of what Cagetti and De Nardi have alternatively described as the "additional risk associated with being an entrepreneur" (2008: 296), is over and above the earlier finding of Cagetti (2003) that precaution is the major motivation in general for wealth accumulation early in life.

The importance of precautionary motivations and higher savings patterns for entrepreneurial wealth accumulators points to a potential (though untested) correlation with research which suggests that a sense of financial security is a major influence over the propensity to gift personal funds for public good. Giving by the wealthy in particular has been found consistently to be influenced by the individual's self-perception of economic and financial security (Lloyd 2004; Rooney, Frederick et al. 2006; 2007). As Schervish observes, the subjective measurement of personal financial status is assessed by individuals with reference to both their financial base and their aspirations "relative to subjective values and norms and in view of comparative assessments with their reference groups" (Schervish 2003: 10).

In the 2005 Bank of America Study of High Net-Worth Philanthropy more than 50% of respondents indicated they would give more if they felt "more financially secure" (Rooney, Frederick et al. 2006: 7). The findings in relation to the entrepreneurs amongst the respondents (those having fifty percent or more of their net worth in entrepreneurial assets) include that HNW entrepreneurs have statistically significantly more wealth than other HNW households and that entrepreneurs have a higher sense of financial security (Rooney, Frederick et al. 2007: 52). Despite this, the entrepreneurial respondents were also more likely than others to indicate they would increase their giving if they felt

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"more" financially secure. This study is one of very few that does provide a comparison of giving by entrepreneurial households. It finds that in 2005 Entrepreneurial households gave on average nearly twice as much to charity as other wealthy households, $232,206 : $120,651, which was a statistically significant positive difference ($p<.001$).

A subsequent study also undertaken by Rooney and colleagues (Rooney, Osili et al. 2009) also finds that the source of wealth has a significant impact on giving. In 2007, on average those who had generated their wealth through entrepreneurial endeavour gave far more to charity than those HNW American households which inherited their wealth or earned it in other ways. Entrepreneurial households (where half or more of their net worth comes from a family-owned business or a start-up company) gave most on average ($248,871) in contrast to households where half or more of their net worth came form growth of investment assets, which gave least on average ($35,680), as illustrated in Figure 1.

Figure 1: Average aggregate giving by primary source of net worth, 2007 ($)

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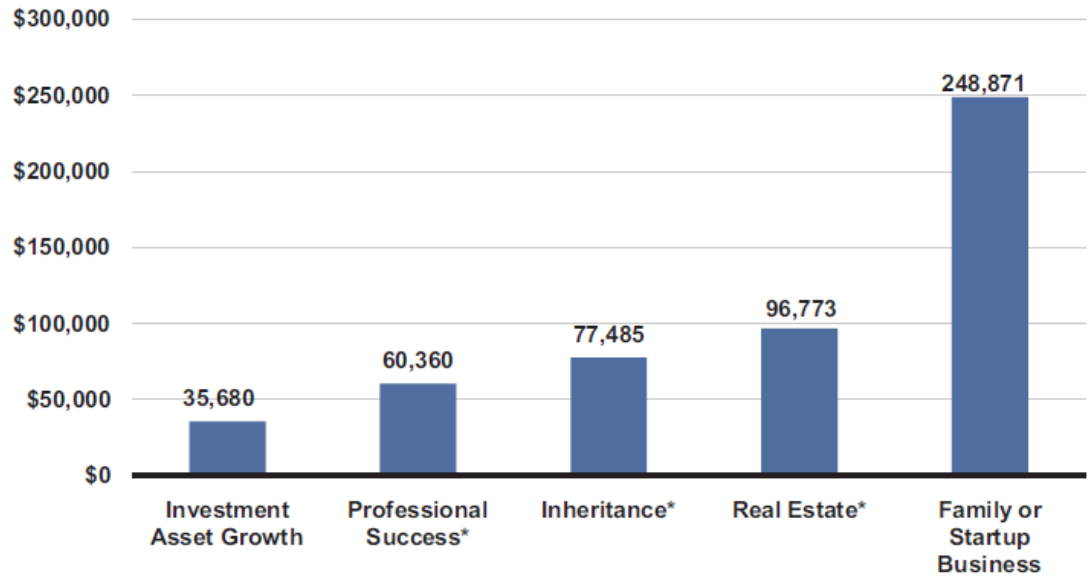

*May not be statistically meaningful because the sample contains fewer than 50 respondents.
Note: Aggregate giving means direct giving through personal assets plus giving from foundations, funds or trusts.

Source: Rooney, Osili et al. 2009: 34

The Bank of America studies led by Rooney provide rare insight into comparative High Net Worth charitable giving by source of wealth. These studies indicate that entrepreneurs are relatively generous, by a considerable measure. They do not, however, speculate on whether the means by which wealth is generated influences the type of giving the entrepreneur engages in. Other media, consulting and academic studies posit that entrepreneurs have a preference for emerging styles of giving such as venture philanthropy in which there is a highly augmented pattern of interaction between the donor (or "investor") and the recipient (or "investee"). As with broader of studies of the association between wealth generation and scale of philanthropic giving, there is limited research on the relationship between the source of wealth and giving styles. In Australia, such information is essentially nonexistent.

GIVING BY THE WEALTHY

Those with the greatest financial resources have the greatest capacity to give charitably. In the United States researchers have demonstrated a strong correlation between wealth

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and charitable giving (Clotfelter 1985; Auten and Rudney 1987; Schervish 2003; James and Sharpe 2007). The analysis by Schervish (2003) of the share of all charitable giving by US households, as summarised at Table 1, indicates that 5 per cent of households account for 45 per cent of all charitable dollars given. In a further subdivision of that 5 per cent of US households, Schervish found that the top 1 per cent account for nearly a quarter (23%) of all charitable dollars. The relative contribution of large scale givers is highlighted even more in a further breakdown of donors, revealing that just 0.2 per cent of US households provide 13 per cent of all donated dollars.

Table 1: US charitable giving by household

Percentage of US Households (overlapping)	*Percentage of US charitable dollars (overlapping)*
0.2%	13%
1%	23%
5%	45%

Source: Schervish 2003: 7

A practical framework for an overview and analysis of research related to charitable giving by the wealthy per se is provided by the three major characteristics of private giving by the wealthy in the United States as identified by Theresa Lloyd (Lloyd 2004): targeted taxation benefits; antipathy to the state having a primary role in the provision of welfare; and as an integral and defining element of the elite culture in the United States.

Targeted taxation benefits: Tax benefits have been shown to have a "potent effect" (Clotfelter 2002: 14) on charitable giving in general in the US. Researchers (Schervish and Havens 2001; Joulfaian 2005) have also shown that as a result of relative taxation benefits, the very wealthy are inclined to make charitable gifts from their estates in preference to during their lifetimes. Schervish and Havens (2001: 98) identify tax incentives for charitable giving as one of the major influences of estate planning for the

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wealthy. The 112 families surveyed (with estates of $5 million or more) indicated they "expect" on average that 37 per cent of their estate will go in taxes, 47 per cent will be gifted to heirs and 16 per cent to charities. These same wealthy individuals indicated they would prefer to pay less of their gross estate in tax, and consequently to redistribute the resultant additional wealth between their heirs and charities. It is significant that while Schervish & Havens do not emphasise this aspect, the preferred redistribution of estate assets away from taxes is nevertheless weighted more in favour of heirs than of charities, as summarised in Table 2.

Table 2: HNWI wealth transfer expectations and preferences in the US

Beneficiary	*Expectations*	*Preferences*
Heirs	47%	65%
Charities	16%	26%
Taxes	37%	9%

Source: Schervish & Havens 2001: 98

The strength of the sentiments summarised above (Table 2) is indicative of both the attractiveness of tax benefits and of the broadly and deeply held aversion in the US to paying taxes to the state.

Antipathy to state role: Beckert (2008) characterises this US quality of antipathy to the state role in welfare provision as "radically individualistic" and describes this approach as normatively grounded in the notion that individuals know much better than the state how their wealth can be put to the best possible use for the common good. As Beckert observes, such an approach puts what constitutes common good entirely at the donor's discretion.

Others (Odendahl 1990; Ostrander 2007) have interpreted this aspect of giving by the wealthy in the US as a means of securing and maintaining privilege and control.

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Odendahl (1990) finds that the US millionaires she interviewed placed a high value on wanting to maintain control over the disposition of their money rather than providing it directly to the government. She argues that the philanthropic elite use their giving to exercise power and to retain control of key social spending initiatives. Her argument (1990) that contemporary American philanthropy is fundamentally a self-serving and self-perpetuating system by which the wealthy exercise social control and help themselves more than others is paralleled by findings in the late 1980s that fewer than 10 per cent of US philanthropic giving is directed at those with less access to resources than the donor/s (Ostrander 1989: 221).

Schervish on the other hand identifies this propensity to influence and control as "hyperagency" (Schervish 1997; Schervish 2008): the combination of psychological and material capacity to not just contribute to or support causes, but to relatively single-handedly produce new philanthropic organisations or new direction in existing ones. In this way, Schervish's conceptualisation of the "hyperagency" of philanthropists is closely aligned with Shane's articulation of entrepreneurship as 'an activity that involves the discovery, evaluation and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously had not existed' (Shane 2003: 4). While entrepreneurship has tended to be framed as profit seeking, and with a tendency towards cutting corners (Barendsen and Gardner 2004), this has been challenged by more recent application of the term to social entrepreneurs (Martin and Osberg 2007; Zahra, Gedajlovic et al. 2009; Defourny and Nyssens 2010) to those involved with initiatives aimed at generating social wealth.

Nevertheless differences in language used to characterise HNW giving, highlight how similar traits can be interpreted and represented in different ways. While to a degree Odendahl's interpretation of her interview data serves to validate a class-based ideological animosity towards the wealthy, her analysis does provide a contrast to many other studies of philanthropic values and behaviours. Her highly critical perspective is at odds with Schervish and with much of the commissioned and non-academic literature associated with fundraising and wealth management, which tends to incorporate a

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sympathetic bias reflecting an agenda to encourage more charitable giving by more of the wealthy.

Elite Culture: The importance of peers is also integral to the findings of the English sociologist Theresa Lloyd (2004) who identified charitable giving as an integral and defining element of the elite culture in the US. The importance of charitable giving to elite culture in the US has also been identified by American researchers (Odendahl 1987; Ostrower 1995; Schervish and Havens 1997). In her ground breaking study of elite philanthropy in New York, Ostrower (1995) finds wealthy donors to be generally focused on their peers as the audience for their philanthropy. The cultural interplay for wealthy New Yorkers demonstrates the point that obligations are most strongly felt where the ties are strongest. It is these people who provide the normative framework and the associated sanctions and rewards that are most powerful. In a network, or a social circle where there is a strong expectation that those with wealth give, then those who are concerned with securing and retaining membership of that network participate in (expected) philanthropic giving. Ostrower observes that "philanthropy is as much about the idea that individuals should "do their share" to support the organisations from which they benefit as it is about giving to others" (1995: 8).

More than 80 per cent of Ostrower's respondents (all active philanthropists) agreed that for the wealthy, philanthropy is an obligation. Ostrower also notes that specific interpretations of "obligation" varied among individuals and particular charitable traditions from tzedaka in the Jewish tradition (a Hebrew term that means justice rather than charity and is therefore considered an obligation) through to the more secular notion of "giving back". Similarly, in interviews with wealthy donors Schervish, O'Herlihy et al. (2001) find that while these individuals see themselves as in control and as primarily responsible for their own success, they acknowledge the contribution of others and report a strong sense of obligation to give back amongst wealthy Americans. This sense of obligation on the wealthy to give back a share of earned wealth to society holds sway throughout the US to such an extent that it has been characterised as an implicit social contract (Acs and Desai 2007).

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AUSTRALIA

In Australia, there is no comparable expectation that those with the greatest capacity will give. Australian-based research indicates that in relative terms the wealthy in Australia are considerably less generous than their US counterparts (Tracey and Baker 2004; Tracey 2005). Unlike in the US where many services are provided by way of private funds, in Australia the provision of most social and community services are regarded fundamentally as a normal and expected function of government. In addition, the difference in scale between the economies and the level of wealth in the US and Australia make it possible for wealthy donors in the US, individually and in aggregate, to allocate very large sums of money to charitable purposes. The framework identified by Lloyd (2004) as characteristic of giving by the wealthy in the US (targeted taxation benefits; antipathy to the state having a primary role in the provision of welfare; and giving as a defining element of the elite culture) does not have the same relevance in the Australian context. Of the three, only the attraction of targeted taxation benefits is applicable in the Australian context, and then only in relation to inter vivos giving.

Targeted taxation benefits do apply in Australia to inter vivos charitable giving, however in the absence of estate/inheritance taxes in Australia there is also an absence of taxation incentives for post mortem charitable giving. In relation to inter vivos charitable giving, only higher deductible amounts tend to be claimed and the wealthy are more likely to claim eligible donations (Giving Australia 2005). Madden and Scaife (2008) observe that it is unsurprising that wealthy Australians are more likely to claim their eligible gifts, given firstly that the wealthy are more likely to use professional support to prepare their tax returns and secondly that the size of gifts by the wealthy (where made) may often be larger.

Findings drawing on data from the height of the economic boom in Australia indicate that inter vivos charitable giving by wealthy Australians did not keep pace with the substantial increases in personal wealth that had been characteristic of the previous decade (Madden & Scaife 2008). Australian Taxation Office data shows that in 2005 approximately two

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thirds of individual Australians with a taxable income of one million dollars or more were participating in charitable giving, as measured by tax deductible donations made and claimed (McGregor-Lowndes & Newton 2007). Madden and Scaife (2008) note the very high probability that all individuals earning a taxable income of one million dollars or more will take professional advice on the preparation of their tax returns. In accordance with their fiduciary duties, the advisers will seek to ensure that any tax deductible donations made are claimed. The data indicates that approximately one in three Australians earning a taxable income of one million dollars or more in 2005 did not make any tax deductible gifts.

The extent to which charitable giving is incorporated into the normative expectations of Australian society as a whole is indicated by the estimated participation rate of adult Australians of 87% (Giving Australia 2005: 6) and the 2010 international ranking of Australasia (Australia and New Zealand) as the region with the highest incidence of giving money (CAF 2010: 68). In this context, the absence of claimed tax deductible donations by high income earning Australians is one indication of a relative lack of expectation that those with the most should give accordingly. Indeed, it may be that in Australia the norms associated with giving by the wealthy are less like those which operate in the United States, and more like that those of the United Kingdom where the prevailing model of charitable giving in the UK has been characterised by Edwards (2002) as typified by spontaneous, spare change donations regardless of income. Capacity is a precondition for charitable giving, it is not sufficient condition. In Australia there is no pervasive antipathy to state involvement in the provision of services; substantive charitable giving is not a societal expectation of the nation's wealthy; and substantive charitable giving is not an integral and defining element of the elite culture.

NEW MODES OF PHILANTHROPY

Contemporary considerations of the entrepreneur invariably incorporate the conceptualisation of Shcumpeter (1994) that the entrepreneur performs the function of innovation that is fundamental to the effective operation of market based liberal systems.

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This direct association of entrepreneurs and innovation leads to a general assumption that entrepreneurs per se are attracted by and responsible for new modes of philanthropy. This assumption is also in part informed by and predicated on the establishment of the US philanthropic foundations in the late nineteenth and early twentieth centuries by entrepreneurs of the likes of Carnegie, Rockefeller and Ford (Karl and Katz 1981). Nevertheless, in recent decades there has been considerable attention paid to what have been described as "new" styles of philanthropy throughout the western world.

Encouraged by a series of articles in the Harvard Business Review in the late 1990s, Letts, Ryan et al (1997)introduced the concept of "virtuous capital" as a juxtaposition of venture capital and philanthropy. With later contributions by management theorists Porter and Kramer (1999) cumulative interest in alternative styles of giving gave way to a cross-pollination of philanthropic practices with ideas emanating out of business schools. Importantly, the rise of Northern California's "Silicon Valley" as the centre of US innovation, wealth and increasingly philanthropy has seen a new class of social investor or 'investors for good' take the mantle (Frumkin 2003; Frumkin 2006; Bishop and Green 2008). As one sector-wide analysis observes "wherever emerging industries have spawned new fortunes, new philanthropic initiatives [are] sure to follow" (Morino and Shore 2004, 10).

The terminology used to describe this transformation has shifted frequently over the past decade or so from strategic to effective to tactical to venture philanthropy and more recently settling on social entrepreneurship. Perhaps the most revealing (and controversial) label to surface from recent literature, however, is philanthrocapitalism, originally coined by Bishop in The Economist (2006) but quickly gaining a footing in the lexicon. Anheier and Leat (2006: 5) call this the "new scientific philanthropy" and identify this as the third phase in the history of giving in the Western world. Katz (2005: 123) shares this sentiment, but rather than seeing new forms of philanthropy as novel, he remains instinctively "skeptical about the direction – or directions – of philanthropy in recent years". Katz channels his critique at the "abstract" managerial rhetoric which oftentimes seems to be stating the obvious; e.g. that donors act strategically when they are unlikely to opt for the counterfactual anyway. He also challenges the way in which this

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rhetoric appropriates without acknowledgement, the central mantra of the US founders of philanthropy; e.g. the "stress on causes rather than symptoms" (Katz 2005: 126).

First and second generation: Resistance, convergence and organisational cultural change

The arrival of alternative modes of philanthropy is opening up some minor, yet not insignificant, distinctions between private foundation organisational types, as well as operational ethos. On the one hand, we have the traditional large-scale grant-making foundation. This ideal type – labelled here first generation – is modelled on the early and mid-twentieth century entities established by formidable US entrepreneurs. This type also includes other large-scale and more recently established liberal foundations such as Hewlett, MacArthur and Packard, and Gates. Characterised by perpetual endowments, a large and traditional organisational structure, and an emphasis on diverse programmes, this type has historically been the dominant force in private philanthropy in international development.

On the other hand, we have the newer, second generation foundations, many of whom emerged out of the vestiges of the technology boom of the 1990s (Bul and McNeill 2007: 51). These foundations are perceived to be more reflexive agents, defined by an emphasis on technology, flexibility, entrepreneurialism, and the flat or horizontal organisational structures (Desai and Kharas 2008: 158) characteristic of modern managerialism. Examples include the Skoll Foundation, endowed by the former President of eBay, Jeff Skoll; the Acumen Fund, a venture fund modelled on venture capitalism; and Google.org, a for-profit social investment fund which seeks to address a wide range of global problems from health through to climate change through "investments" as well as "grants" (Nelson 2008: 5).

Desai and Kharas (2008, 158) have labelled this the 'California Consensus'. They argue that these 'new players' are 'blurring the line between "not-for-profit" and "for-profit" approaches', a theme that has been taken up by many in the media (cf. Bishop 2006) and

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practitioners in the broader sustainability and CSR industry. Elkington and Hartigan (2008) for example extol the blossoming cosmopolitan ethic evident among some agents in the private sector. Its implications and importance as a driver of contemporary philanthropy, while under theorised, nascent and arguably more nebulous than recognised by some commentators (Solomon 2009), are nonetheless potentially of significance, particularly as these ideas have begun to diffuse more widely. The extent to which the new forms are intrinsically attractive to entrepreneurs has, quite simply, been assumed rather than investigated, particularly in the Australian context.

In many ways, however, the perceived division between traditional and "new" forms of philanthropy is becoming increasingly less rigid than as it was being drawn at the start of the twenty-first century. One of the oldest and most enduring US foundations, the Rockefeller Foundation, has readily adapted to the new climate, instituting an organisational restructuring that mirrors these managerialist approaches (The Economist 2006c). It has also recently partnered with the Acumen Fund (a recipient of a seed grant) and the Monitor Institute – founded by management guru Michael Porter – to promote "impact investing" which aims to free-up foundation endowments for investment in the social enterprise space and align foundation investment strategies more closely with mission. Conversely, following a struggle to deliver against its mission by way of its radical form, Google.org has restructured in a manner that much more closely aligns with more traditional philanthropic modes (Boss 2010).

The renewed emphasis on "impact", evaluation and business metrics in traditional and new foundation forms confirms that "business-like" approaches are spreading across to established institutions. This is gradually obscuring the division between the first and second generation foundations, which until more recent times appeared more pronounced.

The essence of these developments as they relate to entrepreneurs is perhaps best captured by Berman (2007), who on drawing on the extensive experience of Rockefeller Philanthropy Advisors on working with philanthropists across the spectrum of wealth sources, observed:

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Risk-taking, vision and an entrepreneurial approach to philanthropy are often found among inheritors – although they may not use the buzzwords of business. By the same token there are successful entrepreneurs who cannot convert their drive and talent to effective philanthropy, even using the model of capitalism. As any venture capitalist will tell you, there are legions of entrepreneurs who cannot manage, work in partnership, or take their idea to scale (Berman 2007: 33).

Nonetheless, while the terms are (and should be) contested they do provide a neat delineation of the new philanthropic landscape, particularly as it is portrayed in the literature.

Entrepreneurialism and entrepreneurial giving styles

A key feature of strategic philanthropy and other new "giving styles", such as venture philanthropy, is an emphasis on measurement. Various metrics, loosely modelled on financial analytics, have been tested over the course of the last decade to quantify a firm or organisation's social and environmental, as well as financial, performance. A broad cross-section of the foundation sector, although particularly those emanating from the US West Coast, have adopted such metrics. One of the early metrics to gain traction was Social Return on Investment (SROI) (Frumkin 2003, 13-14) formulated by the Roberts Enterprise Development, established by George Roberts of private equity firm Kohlberg Kravis Roberts & Co. Most literature cites REDF (Eikenberry and Kluver 2004: 134) (cf. Eikenberry and Kluver 2004, 134; Frumkin 2003, 13; Tuan 2008) as a pioneer of "results" oriented philanthropy and SROI, which attaches a social dimension to the classical accounting concept, ROI, was utilised by the REDF as a performance management tool to illustrate the "accrued" societal benefits of each of its investments (Tuan 2008: 11).

What is important to note here is that there has not just been a shift toward the introduction of metrics but a fundamental shift in discourse that is reformulating philanthropic practice along lines that are said to have roots in entrepreneurial behaviour.

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Eikenberry and Kluver (2004) see this as a largely donor-driven process and one that is a direct carryover of the migration of entrepreneurs from the business and technology sectors. As many supporters of increased measurement are erstwhile venture capitalists with experience in the business world, where creating (and demonstrating) shareholder or stakeholder value is an imperative, there is a sense that philanthropists and grantees should be able to demonstrate outcomes, thus sending a signal that grants have been distributed with appropriate "accountability" (Stannard-Stockton 2007: 45). Brest (2005, 136) therefore argues that while there is a complexity to monetising social phenomena, "with or without attempting to quantify social returns, the investment metaphor embodies an attitude that presses foundation staff to use their donors' resources as effectively as possible" (emphasis in original).

Moving beyond measurement, another defining feature of the new philanthropy implicitly associated with entrepreneurs evident in the literature centres on the issue of engagement – or what can be characterised as deep rather than shallow patterns of interaction. Some form of active interface, whether through monitoring, feedback, evaluation or consultation on programmatic design has been a constant feature of cooperation. Strategic approaches, as observed above by Katz (2005), have always constituted the norm in some form or another. Yet in venture philanthropy, as in venture capital, there is said to be a highly augmented pattern of interaction between the donor (or 'investor') and recipient (or 'investee') (Frumkin 2003, 11). Most accounts of venture philanthropy (cf. Brest 2005; Frumkin 2003, 2006; Vurro 2006) cite the manner in which funders interact with partner agencies as the most conspicuous departure from traditional approaches. Engagement may take the form of managerial advice, secondment of employees or access to management or financial consultants, the aim being to facilitate knowledge transfer and interorganisational learning through sustained cooperation. Frumkin (2006) does not see this as a one-way process. He notes that "rather than cut a check and run" the donors do not only advance various forms of material and in-kind support, but also receive some benefit that 'satisfies the desires of many wealthy people to find meaning in their lives outside business' (Frumkin 2003, 12).

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Linked to the notion of augmented engagement is an additional emphasis on the deployment of continuing resources beyond an initial seed grant, and in keeping with the venture capital orientation, taking account of long-term investment horizons (Vurro 2006). Until relatively recently it has been commonplace in the literature to view big philanthropy as something of an incubator for social innovation, particularly in the period following the 1970s (Morino and Shore 2004). After a programme had proved a success and its effectiveness demonstrated to public officials it was expected that the state would step in and scale the programme up through "expansion…and government replication" (Frumkin 2003, 9). This dominated philanthropic strategy and according to Prewitt (cited in Morino and Shore 2004, 79) government was the natural partner in any strategic alliance that would ensue. However as government has progressively taken a less overtly interventionist approach philanthropy has been forced to adapt. In the venture and strategic paradigms therefore "large blocks of capital [are] delivered over an extended period of time" in an effort to create a self-sustaining sector as government lacks the resource capacity to engage in large-scale programmatic expansion (Frumkin 2003, 9). As such there has been a discernable shift away from the grants as scattered among a wide web of grantees to large investments that seek to build a responsive (or 'business-like') social economy. There is one caveat that many of the new entrepreneurial funders purportedly attach to an investment: an exit strategy, with 'support only' withdrawn 'when the entity is able to sustain itself' (Romirowsky 2007: 113). As yet, however, the extent to which these practices are employed in Australia is not well documented in the academic literature. Moreover the relationship between more engaged forms of philanthropy and the influence of entrepreneurs has not been explored.

CONCLUSION

This paper has provided an overview of extant literature relating to entrepreneurialism and philanthropy. Our review suggests that while there is a relatively limited supply of research dealing with an array of associated matters, there is even less which deals directly with the questions of whether entrepreneurs give more and whether they give

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differently. What studies are available indicate that entrepreneurs are well represented in the ranks of the wealthy. A small number of studies in the US have indicated that amongst the wealthy, entrepreneurs on average give more. It is not clear however whether the average is distorted by particularly high level gifts by a small number of individual entrepreneurs, or whether higher level giving is indeed common across entrepreneurs as a whole.

The majority of the research and literature of relevance to this exploration is derived from the US. Giving in the US and giving by the wealthy in particular in the US have been clearly identified in the literature as being significantly influenced by the history, culture and taxation of giving in that country. What little research has been undertaken in Australia indicates that what have been identified as key drivers of giving by wealthy in the US are simply not operative in Australia, to any significant degree.

There is a growing body of literate that addresses new forms of philanthropic giving and the attractiveness of these forms to entrepreneurs. The association between entrepreneurs and new forms of giving tends to be based on observations and is rarely supported by data. Is the proposition that entrepreneurs are attracted to particular forms of giving a generalisation, a supposition, or will it hold up to closer examination? It is the view of the authors of this paper that even if such a proposition is sustainable in the US, there is nothing available in Australia to either support or contradict any assertions about entrepreneurialism and philanthropy. Given the close association between wealth and entrepreneurs, and wealth and giving, the lack of any substantive insights into entrepreneurs and giving in Australia is significant short coming. We believe the time is right to address to address this knowledge gap.

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