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Business Failure and Entrepreneurship: Emergence, Evolution and Future Research

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Abstract

Business failure research has been the focus of renewed interest in the entrepreneurship field. It is complex, being both a sign of economic vibrancy and the source of great individual trauma. An understanding of these complexities is important to academics, practitioners and regulators. This monograph provides a review of the literature to date. It charts the emergence of business failure research in the finance literature through to its recent development within the contemporary entrepreneurship field. The multidiscipline nature of business failure research is explored through incorporation of studies from accountancy, information systems, social psychology, general management, economics and entrepreneurship. Research on the topic is diverse; the lack of a universally accepted definition of failure coupled with the absence of an underpinning theory has resulted in an expansive range of studies. The aim of this review is to provide a comprehensive and critical review of business failure research, bridge the gap between the various perspectives, and develop a cohesive understanding of the phenomena, upon which future studies can be based.

1

Introduction

Business failure research has its origins in the finance, when the establishment of commercial banks greatly increased the flow and spread of financial information in the latter half of the nineteenth century [Horrigan, 1968]. Since then it has been explored and studied by a range of disciplines with researchers using disparate methodologies and various lenses (see Beaver, 1966 — finance; Freeman et al., 1983 — sociology; Dunne et al., 1989 — economics; Moulton et al., 1996 — management; Yamakawa et al., 2015 — entrepreneurship). The most recent resurgence of interest in the subject has occurred in the past decade, with a noticeable and sustaining increase in studies related to business failure emerging from the entrepreneurship literature [see Shepherd et al., 2009b, Ucbasaran et al., 2010, Wennberg et al., 2010, Cope, 2011, Cardon et al., 2011, Mantere et al., 2013, Jenkins et al., 2014, Wolfe and Shepherd, 2015, Hsu et al., 2015]. The renewed interest on business failure within the entrepreneurship domain has led to a focus on individuals' experiences of failure [Franco and Haase, 2010, Simmons et al., 2014, Byrne and Shepherd, 2015], thus departing from the comparatively detached approaches, such as analytical modelling, that were commonplace when the topic first debuted in the finance literature.

Interest in the topic has enriched the entrepreneurship literature and led to a more nuanced understanding of business failure [Ucbasaran et al., 2013, Wennberg and DeTienne, 2014]. However, there remain issues within the field, gathering data on such a sensitive topic is difficult. Comparability between studies is further hindered by the lack of a universally accepted definition; furthermore, the tendency amongst researchers is to select their definition based on access to data rather than scientific reasoning is concerning. This review aims to explore these issues and provide a comprehensive overview of the evolution of business failure research and key debates that have surrounded the subject over the years within the entrepreneurship literature.

This literature review organised as follows. Section 2 discusses the lack of a universally accepted definition of business failure, the difficulties that arise from this, and the way in which this has directly contributed to the limitations of quantitative studies. Furthermore, the range of definitions employed by various studies within the literature is examined in addition to the diverse methodological approaches. Section 3 charts the emergence of failure studies in the business literature, from their roots in financially driven bankruptcy prediction models to the more encompassing organisational decline models. The monograph also explores competing perspectives of business failure — deterministic and voluntaristic. These two distinct schools of thought raise compelling, albeit reductionist arguments in their exploration of the drivers of business failure.

Section 4 provides a review of the extant literature on business failure in the entrepreneurship field. The focus is on the areas of enquiry that have, thus far, dominated literature in the area. The section examines the body of knowledge on causes of, learning from, and psychological effect of failure in the context of entrepreneurship. Additionally, the literature pertaining to emotions and failure as well as recovery from failure are discussed and popular theories that accompany these subjects are considered. This section culminates in an overview of the methodological approaches that are more commonly seen in the recent literature and then discusses the way in which these approaches are comparable to previous research methods. The later part of the review

is comprised of Section 5 where an overview of the limitations of current approaches to the study of business failure is presented; particular focus is given to the issues that arise from retrospective biases. Finally, Section 6 explores the future of the research topic within the entrepreneurship literature. The monograph concludes with a summary of the key arguments presented and an iteration of the importance, for both theory and practice, of sustaining and advancing business failure research.

2

Definitions and Concepts

The concept of business failure has ignited interest from various researchers across the business and management spectrum, from economists to accountants and entrepreneurs to organisational theorists. However, a uniting obstacle faced by these fields stems from the lack of a universally accepted definition of business failure. Scholars from various fields have failed to converge on a unifying definition and even within fields there is discord as “no two experts agree on a definition of business failure” [Bruno and Leidecker, 1988, p. 51]. The various interpretations of business failure within the literature are best described as shifting goals whereby the range of the dataset either contracts or expands depending on a given academics perception of failure [Cochran, 1981, Bates, 2005]. The impact of the definitional deficit is twofold. First the scope of the definition utilised in any given study will have a substantial impact on the resulting rate of failure detected, thus hindering comparisons across datasets [Cochran, 1981, Watson and Everett, 1996]. Secondly, definition choice influences the outcomes and processes that are observed, therefore a variety of definitions further extend the chasm between studies [Ucbasaran et al., 2013]. The range of definitions is explored in greater detail in the following section.

2.1 Review of existing definitions and their implications

Business failure is a topic that has piqued the interest of scholars from various business disciplines; in turn it has garnered a variety of definitions over the decades. [Cochran \[1981\]](#) drew attention to the expanding and contracting nature of various business failure definitions ranging from the dysfunctional broad to the acutely narrow. At one end of the spectrum is the definition of failure as bankruptcy. A firm may cease to exist as a legal entity through either voluntary or compulsory liquidation. In certain circumstances dissolving the firm earlier through voluntary liquidation can stem further financial loss. However, firms may also pursue voluntary liquidation for wholly positive reasons such as acquisitions, mergers, or retirement. Thus, when examining the legal cessation of a firm from a business failure perspective, compulsory liquidation is most appropriate, as a court order forces the liquidation of the firm. Insolvency is not the sole prerequisite for compulsory liquidation; inequity and injustice are also grounds for such a legal action [[Sheehan, 2014](#)]. Bankrupt firms provide precision and ease of identification as they have been subjected to a legal process that is held on record; it is thus a tempting definition to employ in business failure studies [[Cochran, 1981](#)]. However, the narrow scope of bankruptcy as a definition leads to a reductive focus on a small subset of business failures. The definition excludes other signals of a failing business such as the business not providing a reasonable rate of return for the owners/investors [[Ucbasaran et al., 2013](#)]. Furthermore, bankruptcy laws differ across regions thus clouding the comparability of studies in various legislative districts.

On the opposing end of the spectrum the broadest of definitions posited by [Cochran \[1981\]](#) is discontinuance. [Fredland and Morris \[1976\]](#) argue that discontinuance can be utilised as a proxy for failure, as discontinuance suggests that resources have been shifted to a more profitable project. However, discontinuance of ownership includes firms that are sold due to the owner wanting to retire, firms sold for a profit, and firms sold simply because the owner wants to move on to another venture [[Watson and Everett, 1996](#)]. Assuming discontinuance is a synonym for failure is myopic and unreasonable [[Khelil, 2016](#); [Wennberg](#)

and DeTienne, 2014; Justo et al., 2015] Furthermore, it is the inclusion of these entities that skew and inflate the failure statistics. Additional difficulties arise from the fact that there are multiple variations of discontinuance, some classify discontinuance of ownership whilst others use discontinuance of the business [Watson and Everett, 1996]. Although discontinuance lacks the clear-cut nature of bankruptcy it is possible to identify, with relative ease, a dataset of discontinued firms. However, a complication in the treatment of small firms occurs in the area of ownership transfers. Transfers of ownership by corporations are treated differently from transfers of ownership by partnerships or sole traders [Watson and Everett, 1996]. When a partnership or sole trader sells his or her business or changes the business's format it is generally regarded as a discontinuance of one business and the start-up of another whereas the transfer of shares in a firm is generally not treated as a business discontinuance [Watson and Everett, 1996]. Thus partnerships and sole traders are perceived to discontinue more frequently than comparable corporate entities [Watson and Everett, 1996], thereby promoting skewed statistics through the inconsistency of treatment.

Discontinuance of a firm for any reason and formal bankruptcy proceedings are referred to as a “surrogate measure of failure” [Watson and Everett, 1996, p. 47]. Despite being on opposing ends of the scale with regard to definitional scope they are both identifiable and specific; however, one is excessively narrow (bankruptcy) whilst the other excessively broad (discontinuance); as such many other definitions of business failure have been utilised and proposed over the years. Although they may not offer the same ease of dataset identification, they offer an insight into business failure from a range of lens as researchers from different disciplines approach the topic from their respective areas of specialism, resulting in a vibrant array of business failure definitions. This has led to many interesting perspectives on business failure, however a major downside comes from the fact that the studies are, in many cases, incomparable as they engage vastly different definitions and conceptualisations [Jenkins and McKelvie, 2016]. As previously mentioned compulsory liquidation is considered the legal definition of business failure. It enacts a legal process that normally culminates in

the obsolescence of a business. This contrasts with the accounting perspective on failure whereby failure is described as “wanting or needing to sell or liquidate to avoid losses or to pay off creditors or general inability to make a profitable go of the business” [Gaskill et al., 1993, p. 18]. Whilst both are viable and reasonable definitions of failure, the academic lens the researcher examines the concept through, heavily influences each. Both perspectives involve liquidating assets and compensating creditors (where possible), however the same process can be explored through an entirely legal lens, or a wholly financial lens. Thus whilst broadly the same process is under scrutiny, the results from the diverse perspectives may be incomparable. Whilst viewing the phenomena from diverse perspectives enriches understanding, it also increases the complexity of consolidating research on the phenomena as it incorporates many different facets from an array of subject areas.

The economist perspective also offers a varying view of failure whereby “failure” is regarded as a business that earned a rate of return on investment which did not sufficiently cover the opportunity costs [Fredland and Morris, 1976]. In this instance the firm does not strictly need to dissolve in order to fulfill the definition, it simply needs to be less fruitful than the alternative opportunities available at the time of investment. However examining this definition from an entrepreneurial perspective makes it less compelling as many business owners trade off reduced profits in order to gain less tangible, immeasurable, rewards such as increased market share, independence and personal satisfaction [Benz, 2009]. Entrepreneurship is not solely a profit-seeking activity; as such the economist’s definition of failure is somewhat limiting, as it does not account for the intangible benefits of firm ownership. In line with the economist approach Cardon et al. [2005, p. 300] put forth another definition whereby failure is regarded as “a deviation from expected and desired results”. This is an all-encompassing definition loaded with an imprecision which allows almost every firm in existence to fit into its realm in some aspect. The strategic management perspective has also evolved with Sheppard and Chowdhury [2005, p. 240] defining failure as “the misalignment of the organization to the environment’s realities”. Also under the strategic management umbrella Cochran [1981,

p. 52] puts forth the definition of failure as an inability “to make a go of it”, regardless of whether losses include capital or not. Furthermore the definition termination to prevent further losses can be regarded as a strategic response to stem to the flow of loss following a period of difficulty. However engaging the definition requires further exploratory research in order to determine a dataset [Ulmer and Nielsen, 1947]. However losses can stem from financial debt but also from reputational damage and the loss of time invested, to name but a few. Therefore depending on one’s interpretation, this definition can invoke different meanings from different researchers. From an organizational viewpoint discontinuance may be regarded as a proxy for failure as the firm is either discontinued or the owner ceases to continue with the organization. Further organizational perspectives of failure consider the broader context within which the firm is operating. Freeman et al. [1983, p. 694] regard failure as occurring when a firm “ceases to carry out the routine actions that sustain its structure, maintain flows of resources, and retain the allegiance of its members”. In a more general sense Sharma and Mahajan [1980, p. 82] label a firm a failure “if it cannot meet one or more of its responsibilities”.

In recent years the discussion on business failure definitions has continued to evolve and the debate has become more nuanced. Coad [2014] has criticized the term ‘failure’ as a pejorative word that negates the prior existence of a firm as a futile exercise, given its ultimate demise. Instead the word ‘death’ is presented as a more suitable term as it encompasses both involuntary exits such as bankruptcies and voluntary exits such as retirement liquidations [Coad, 2014]. Hoetker and Agarwal [2007] also embraced the word death to describe business exit. However it is necessary to understand that “exit and failure are two distinct concepts” [Wennberg and DeTienne, 2014, p. 9; Knott and Posen, 2005] yet despite their differences it is “difficult to differentiate voluntary closure from failure” [Shepherd and Wiklund, 2006]. Studies based on representative samples from US [Bates, 2005, Headd, 2003] and UK entrepreneurs [Ucbasaran et al., 2006] found that one-third considered their firm successful when exiting. According to Headd [2003] it is the lack of distinction between business closure and business

failure that is inflating failure statistics as some studies [Bates, 1990, 1995, Holmes and Schmitz, 1996, Åstebro and Bernhardt, 2003] directly relate business exits with failure regardless of the underlying reasons for discontinuance. Given the oscillating nature of business failure definitions, voluntary exits tend to get integrated with failures; the degree to which this occurs depends on the scope of the definition used. Many studies have used exit as a proxy for failure [Strotmann, 2007]. Yet an exit strategy that allows the owner to close or sell their business whilst it is still profitable is positive and so should not be categorized as failure [Headd, 2003].

One of the more popular definitions of business failure gaining momentum within the entrepreneurship literature characterizes failure as “the cessation of involvement in a venture because it has not met a minimum threshold for economic viability as stipulated by the entrepreneur” Ucbasaran et al. [2013, p. 175]. It is broad and comprehensive, however it explores failure from the entrepreneurship perspective and as such it is the entrepreneur’s expectations of economic viability that dictates their fulfillment of the definition. Additionally, further obstacles arise when considering small businesses and entrepreneurial firms. First, small firms are not subjected to the same rigorous, formal reporting requirements as large companies [Watson and Everett, 1996]. Often times SMEs engage informal reporting mechanisms, such as face-to-face interaction with stakeholders as opposed to formal written accounts [Baumann-Pauly et al., 2013]. Thus obtaining adequate, comparative, timely and reliable information on small firms to assess economic performance is, in most cases, not possible. Secondly, small company accounts generally lack of a system of internal control, thus making independent confirmation of figures presented in the accounts problematic [Keasey and Watson, 1987]. Thirdly a time lag often occurs when small companies draw up their accounts [Luytpaert et al., 2015], this delay further hinders the relevance of the information as a useful tool to determine the health of a firm [Keasey and Watson, 1987]. Ultimately, when it comes to business failure definitions many researchers are guided to the most appropriate failure definition based on the dataset available rather than vice versa, so a trade-off

exists between ease of access to a dataset and an appropriate definition of business failure. This further blurs the lines and hinders the reliability of studies contributing to being incongruent statistics and incomparable research studies.

Recently, further efforts within the entrepreneurship literature to clarify the concept of failure have led to an exploration of the differences between failure and exit [Bates, 2005, Headd, 2003, Wennberg et al., 2010]. Although exit is multilevel in nature (it may refer to the exit of firms from the market or the exit of founders from their firms), it is a “measurable event that can be easily captured empirically” DeTienne et al. [2015, p. 257]. A recent paper by Khelil [2016] argued for exit to be engaged as a base concept that is then built upon with three specific configurations as a means of further synthesizing the phenomena of failure. These configurations being: (1) exit caused by the new venture’s economic failure, (2) exit caused by the entrepreneur’s disappointment and (3) exit to avoid failure [Khelil, 2016]. Clearly it is easier to identify exit as opposed to failure, and whilst exit as a proxy for failure is not acceptable, it does offer an opportunity to establish a dataset from which to start an investigation into the complex topic of failure.

Table 2.1 provides a general overview of key business failure definitions from various fields.

In summary the general consensus in the literature is that the lack of a uniform definition is hindering our understanding of the phenomena [Pretorius, 2009, Watson and Everett, 1998, 1996, Cochran, 1981], and this remains an obstacle for development of the topic within the entrepreneurship literature. It has led to the inclusion of firms that change ownership, geographical location or legal structure in the business failure statistics. These practices further hinder the viability of international empirical comparisons and the progression of the business failure literature as a whole. Each definition has its respective merits and according to Ucbasaran et al. [2013] the researcher’s choice of definition should be guided by the study’s research question. However many failure traits are not visible or measurable on a large scale but are more tacit, instinctive and subjective and therefore require a deeper investigation into the firms in question before they can even

Table 2.1: Definitions of business failure from various perspectives.

Academic perspective	Definition	Advantages	Disadvantages
Accounting	“wanting or needing to sell or liquidate to avoid losses or to pay off creditors or general inability to make a profitable go of the business” [Gaskill et al., 1993, p. 18]	<ul style="list-style-type: none"> • Clear • Focused • Specific 	<ul style="list-style-type: none"> • Requires further analysis to identify
Legal	Bankruptcy through compulsory liquidation: “companies are placed into insolvency after a successful petition to the Court by a creditor of the company” [Cuthbertson and Hudson, 1996, p. 298].	<ul style="list-style-type: none"> • Clear • Focused • Specific • Identifiable • Accessible 	<ul style="list-style-type: none"> • Restrictive • Narrow
Economic	“deviation from expected and desired results” [Cannon and Edmondson, 2005, p. 300]	<ul style="list-style-type: none"> • Broad • Specific 	<ul style="list-style-type: none"> • Excessively broad • Requires further analysis to identify • Subjective
	Failures as opportunity costs [Cochran, 1981]	<ul style="list-style-type: none"> • Specific • Broad 	<ul style="list-style-type: none"> • Requires further analysis to identify
Strategic	Termination to prevent further losses [Ulmer and Nielsen, 1947]	<ul style="list-style-type: none"> • Specific • Identifiable 	<ul style="list-style-type: none"> • Narrow
	“failure is the misalignment of the organisation to the environment’s realities” [Sheppard and Chowdhury, 2005, p. 240]	<ul style="list-style-type: none"> • Broad 	<ul style="list-style-type: none"> • Requires further analysis to identify • Subjective
	failure to “make a go of it” [Cochran, 1981, p. 52]	<ul style="list-style-type: none"> • Broad • Allows subjectivity of individual involved 	<ul style="list-style-type: none"> • Requires further analysis to identify • Subjective

(Continued)

Table 2.1: (Continued)

Academic perspective	Definition	Advantages	Disadvantages
Organisational	Discontinuance [Ulmer and Nielsen, 1947] “ceases to carry out the routine actions that sustain its structure, maintain flows of resources, and retain the allegiance of its members” [Freeman et al., 1983, p. 694]. “a firm may be regarded as a failure if it cannot meet one or more of its responsibilities” [Sharma and Mahajan, 1980, p. 82]	<ul style="list-style-type: none"> • Identifiable • Broad • Specific 	<ul style="list-style-type: none"> • Not necessarily solely failure • Requires further analysis to identify • Subjective • Requires further analysis to identify dataset • Subjective
Entrepreneurship	“the cessation of involvement in a venture because it has not met a minimum threshold for economic viability as stipulated by the entrepreneur” [Ucbasaran et al., 2013, p. 175].	<ul style="list-style-type: none"> • Broad • Allows subjectivity of individual involved 	<ul style="list-style-type: none"> • Requires further analysis to identify • Subjective

be classified by definition. In fact to fully understand which definition is most applicable to each individual failure case, an in-depth qualitative research approach can be beneficial, yet such an approach also has obvious drawbacks.

Definition choice is a crucial element to any study of business failure as variances in the level of failure detected ranges from a peak of 71% to a low of 31% in the first five years of life depending on the definition employed [Watson and Everett, 1996]. Table 2.2 presents the various studies examining types of exit. The studies highlight both the diversity of exit and the way in which use of certain

Table 2.2: Failure versus exit explored.

Author	Study	Outcomes in Percentage Terms	
Wennberg et al. [2010]	Analysis of 1,735 independent start-up firms based in Sweden. The firms were all started in 1995 and tracked until 2002	<ul style="list-style-type: none"> • Remained in business • Harvest liquidation • Distress liquidation • Harvest sale • Distress sale 	34% 26% 25% 8% 6%
Gimeno et al. [1997]	Study explored 3,615 entrepreneurs with new businesses in the USA, they were tracked for 3 years (1985–1987)	<ul style="list-style-type: none"> • Remained in business • Discontinued • Sold • Did not respond to the final survey and were not identified as discontinued or sold 	26% 17% 5% 52%
Headd [2003]	Examines new employer firms' census datasets from the USA. Results are after 4 years of start-up	<ul style="list-style-type: none"> • Closed and successful • Closed and unsuccessful • Still operating 	17% 33% 50%
Ronstadt [1986]	Analysis of questionnaire data from the USA on 95 former entrepreneurs that were Babson College alumni	<ul style="list-style-type: none"> • Selling out • Liquidation • Bankruptcies • Unclear 	46% 43% 5% 5%
Harada [2007]	Examined reasons for exit amongst 1,743 small Japanese firms	<ul style="list-style-type: none"> • Economic forced exit^a • Non-economic forced exit 	39.7% 60.3%
Balcaen et al. [2012]	Analysis of 6,118 mature firm distress-related exits in Belgium	<ul style="list-style-type: none"> • Court-driven exit (mainly bankruptcy) • Voluntarily liquidated • Merger and Acquisition 	41% 44% 14%
Tavares Machado [2014]	Study tracks the exit strategies of Portuguese 35,135 start-ups and 45,086 founders over the period of 2004 to 2009	<ul style="list-style-type: none"> • Continuation • Distress liquidation • Voluntary liquidation • Distress sale • Voluntary sale 	65% 11% 5% 14% 5%

(Continued)

Table 2.2: (*Continued*)

Author	Study	Outcomes in Percentage Terms
Watson and Everett [1996]	Focused on 5,196 young Australian businesses over 30-year period operating in shopping centres. Examined reasons for sale or closure based on various definitions	• Bankruptcy 7%
		• To prevent further losses 23%
		• Failed to make a go of it 42%
		• Discontinuance of ownership 100%
		• Discontinuance of business 39% ^b
obos and Szewczyk [2012]	Data from Poland showed of 275,300 firms started in 2009 the percentage still active at the end of 2010	• Still active 77%
		• Inactive 23%

^a Bankruptcies accounted for only 2%.

^b Is not adding up to 100% as when the definition broadens in scope it incorporates previous outcomes. E.g. “to prevent further losses” also includes “bankruptcy” figures.

definitions of failure can inflate the statistics [see [Watson and Everett, 1996](#), study]. Furthermore the terminology used in the studies is, for the most part, clear and identifiable, yet it differs greatly from the definitions of business failure discussed earlier, which are more subjective. This divergence illustrates the misalignment between the practical observation of failure and exit, and the conceptualisations of failure put forth in the literature.

Contemporary entrepreneurship literature has been instrumental in postulating the need for a distinction between failure and exit [[Wennberg and DeTienne, 2014](#), [Coad, 2014](#)]. The focus of entrepreneurship research on the individual actor allows for a more nuanced differentiation between failure and exit than large-scale, quantitative studies can currently provide.

3

The Emergence of Failure Studies in the Business Literature

Research on business failure traces back to the late 1800s when the establishment of commercial banks greatly increased the flow and spread of financial information [Horrigan, 1968]. This availability financial data was the genesis of business failure studies. Early studies primarily focused on financial and accounting measures and subsequently the topic spread into economics, information systems, general management, sociology and entrepreneurship. This section explores the emerging failure studies that contributed to shaping the contemporary failure literature.

3.1 Bankruptcy prediction models

In the 1930s the great depression formed the catalyst that led to the study of business failure to begin in earnest. Access to financial data allowed for tentative links and relationships to be made between various items within financial statements. Studies identified that failing companies display considerably different ratio measurements to continuing businesses [Fitzpatrick, 1932, Smith and Winakor, 1935, Merwin, 1942]. This led to the creation of bankruptcy prediction models; most models

were created using a paired-sample technique. That is, one sample consisting of data pertinent to failed firms (e.g. debt level, cash liquidity rate) and a paired sample comprising of continuing firms with contemporaneous data. The results determine which financial attributes are consistent and/or which are significantly different between the viable firms and failed firms. The goal of this technique is to identify a formula, “based either on a single ratio or a combination of ratios, that best discriminates between firms that eventually failed and firms that remained solvent” [Scott, 1981, p. 320]. The development of an empirical foundation of ratio analysis that these early studies created, paved the way for the more sophisticated studies that came to the fore in the late 1960s. It was the seminal works of Beaver [1966] and Altman [1968] that ignited profound new interest in prediction modelling as a means of determining corporate distress.

Beaver’s [1966] pioneering research presented a financial ratio model in the form of univariate discriminate analysis. This model utilised three important ratios, namely, cash flow to total debt, net income to total assets and total debt to total assets, through a dichotomous classification test. Engaging these ratios individually had the propensity to flag struggling firms for as long as 5 years prior to failure ensuing [Altman, 1993, Cahill, 1997]. Subsequently Altman [1968], building on the foundations laid by Beaver [1966], employed the multivariate discriminate analysis technique — “a statistical technique used to classify an observation into one of several a priori groupings dependent upon the observation’s individual characteristics . . . in its most simple form (it) attempts to derive a linear combination of these characteristics which ‘best’ discriminates between groups” [Altman, 1993, p. 182]. Altman’s multivariate discriminant analysis produced a set of ratios that combined to determine a ‘Z score’. An enhanced version later became known as the Zeta analysis model ([Altman et al., 1977] dominated the literature on business failure prediction until the 1980s [Balcaen and Ooghe, 2006]. Whilst multivariate discriminant analysis is still a generally accepted method of analysis it has been largely replaced by more straightforward techniques such as logit analysis, probit analysis and linear probability modelling. Logit analysis is the most

popular of the three. Forged by Ohlson [1980] it claims greater accuracy in its predictive abilities as it combines various firm characteristics into a multivariate probability score [Cahill, 1997]. However the non-randomised approach of traditional failure prediction models may result in inefficient predictions due to under-representation of particular types of firms [Balcaen and Ooghe, 2006]. Improved econometric techniques along with the increasing availability of data allowed bankruptcy prediction techniques to grow during the 1980s and 1990s [Lee and Choi, 2013]. Prediction models are still widely used today and technology advances in recent decades have allowed for increasingly complex algorithms to develop into sophisticated artificial intelligence (AI) models [Camacho-Miñano et al., 2015]. AI models have been applied to bankruptcy prediction since the 1990s, however it, alongside all previous models they are not without criticism. An overview of the main bankruptcy prediction models is presented in Table 3.1.

3.1.1 Suitability of prediction modelling in contemporary research

Although prediction modelling remains a major research field within corporate finance [Sun et al., 2014, Balcaen and Ooghe, 2006] several forces have affected the appropriateness of predictive models in recent years. First the increase in the relative importance of intangible assets and financial derivatives in recent decades are items not adequately captured by extant financial ratios. Given that such assets can be important commodities this omission constitutes potentially important variables. Secondly a perceived increase in the degree of discretion used when entering financial statements [Beaver et al., 2005] has the potential to either enhance or impair prediction precision. On one side financial statements may be informed by significant private information known only to the company's internal management, conversely internal discretion could be utilised to obscure important aspects of a firm's financial performance. A look back at recent years can attest that this opportunistic behavior is not uncommon [Bisogno and Luca, 2015, Beaver et al., 2005, Fich and Slezak, 2008, Rosner, 2003]. There is a perception that discretion in reported financial statement amounts

Table 3.1: Bankruptcy prediction models.

Bankruptcy prediction model	Basic premise	Key authors
Univariate analysis	The univariate logistic approach evaluates the predictive ability of each variable for 1, 2 and 3 years prior to failure occurring. It is an extremely simple technique based on a stringent assumption of a linear relationship between all measures and the failure status [Balcaen and Ooghe, 2006].	Beaver [1966] Appetiti [1984]
Risk Index Models	Risk Index Models are a simple ‘point’s system’ that includes ratios as a measure of financial health. A certain number of points (between 0 and 100) are attributed to a firm based on the firm’s ratios. The greater the points total the better the firm’s financial situation.	Tamari [1966] Moses and Liao [1987]
Multivariate discriminate analysis (MDA)	MDA classifies firms into mutually exclusive groups, either failing or non-failing based on a combination of independent financial ratios. MDA is a progression of univariate analysis.	Altman [1968] Altman et al. [1977] Deakin [1972] Ooghe and Verbaere [1985] Altman et al. [1995]
Logit Model (LA)	The LA gives a probability of bankruptcy in percentage terms. It combines several characteristics into a probability score for each firm. Firms are then assigned to a failing or non-failing group based on their logit scores.	Martin [1997] Ohlson [1980] Aziz et al. [1988] Luoma and Laitinen [1991] Andersen [2008]
Probit Model (PA)	The PA is closely related to the LA however probit estimation requires the likelihood function to be weighted; therefore the sample proportion of bankrupt companies is approximately equal to the population proportion [Lennox, 1999].	Zmijewski [1984] Gloubos and Grammatikos [1988] Skogsvik [1990] Theodossiou [1991]
Hazard Model	Hazard Models generate probabilities of failure within a predetermined interval.	Cox [1972] Lane et al. [1986] Beaver et al. [2005] Arena [2008]
Artificial Intelligence Expert Systems (AIES)	Intelligent systems are constructed using the human expert approach (entering human knowledge into a computer) or machine-learning approach (generating knowledge through data analysis). AIES include decision tree, fuzzy set theory, case-based reasoning, genetic algorithm, support vector machine and neural networks and most recently extreme machine learning.	Coats and Fant [1993] Bell [1997] Boritz et al. [1995] Fanning and Cogger [1994] Camacho-Miñano et al. [2015] Yu et al. [2014]

has substantially increased over time although it is uncertain if this is due to an actual increase or simply that cases of discretion have become better documented in recent years. However studies by [Beaver et al. \[2005\]](#) and [Fich and Slezak \[2008\]](#) are consistent with the view that deterioration in the predictive ability of financial ratios is primarily due to increased discretion.

The utilisation of the linear classification rule, the use of annual account information and the neglect of the multifaceted nature of failure also hinder the predictive ability of classical models [[Balcaen and Ooghe, 2006](#)]. The assumption of linearity exists in univariate corporate failure prediction models so if a firm's value for a certain predictor is lower than a particular cut-off point this signals weak financial health, and vice versa [[Balcaen and Ooghe, 2006](#)]. However this assumption is often violated as some variables indicate financial problems when the variable's value is very low or very high [[Keasey and Watson, 1991](#)]. Furthermore evidence highlights that unhealthy firms are incentivised to manipulate their annual accounts using creative accounting practices; this activity is particularly prevalent when failure is imminent [see [Argenti, 1976](#), [Ooghe et al., 1995](#), [Charitou and Lambertides, 2003](#), [Rosner, 2003](#)]. A distain for failure can "lead to behavior that seeks to avoid failure unscrupulously" [[McGrath, 1999](#), p. 20]. Additionally annual accounts may be particularly unreliable for smaller firms due to the lack of an internal control system [[Keasey and Watson, 1987](#)]. Auditors may make annual account adjustments in light of a bankruptcy filing, commonly referred to as 'accommodated' annual accounts [[Charitou and Lambertides, 2003](#)]. Thus unreliable accounting information results in failure prediction models based on distorted financial ratios thus limiting their usefulness and application [[Balcaen and Ooghe, 2006](#)]). Furthermore failure prediction models based on annual accounts implicitly assume that all relevant success and failure indicators are reflected in the annual accounts however this is simply not the case [[Argenti, 1976](#), [Zavgren, 1985](#), [Maltz et al., 2003](#)]. [Argenti \[1976, p. 138\]](#) stated that, "while ratios may show that there is something wrong... I doubt whether one would dare to predict collapse or failure on the evidence of these ratios alone". Furthermore

Zavgren [1985, p. 22–23] bolstered the argument by postulating that, “any econometric model containing only financial statement information will not predict with certainty the failure or non-failure of a firm”. Currently, Artificial Intelligence Expert Systems (AIES) are popular, however these too have problems, including “strict hypothesis, poor generalization ability, low prediction accuracy and low learning rate, (and) slow computational time” [Yu et al., 2014, p. 296]. Furthermore transparency is an issue for some expert systems. Particularly, neural network models and vector machines [Olson et al., 2012] where only the final results are available; known as ‘black box’ representations. Meanwhile decision tree models generate too many rules [Olson et al., 2012]. Rules provide transparency as they show the basis for the model’s predictions. The number of rules can be controlled to a degree, by setting different minimum support levels [Olson et al., 2012]. However when the tree is deeper it requires increasingly complex decision rules, this in turn leads to a fitter model and a tree-like network of relationships and interactions. Thus whilst decision rules increase a model’s ability it also increases “the complexity involved for human application” [Olson et al., 2012, p. 470].

Unsurprisingly, there is “no academic consensus as to the most useful method for predicting corporate bankruptcy” [Aziz and Dar, 2006]. Whilst prediction models provide insightful data they do not negate the need for exploration of the human and managerial side of firms [Yazdipour and Constand, 2010]. At the height of business prediction models popularity, Storey et al. [1987] indicated that qualitative studies can be at least as good as financial prediction models at pre-empting firm failure. Whilst prediction models have continued to advance and improve over the years, so too have non-finance-based approaches. The following section will explore organisational decline models.

3.2 Organisational decline models

Rather than focusing on predictive techniques through financial data, organisational decline models are concerned with understanding the process of business failure. The late 1980s saw a surge in organisational

decline studies [Adler and Chaston, 2002]. In later years life-cycle theory captured the concept of a business progressing through distinguishable, predictable stages [Cahill, 1997]. The theory presents five distinct stages that an organisation progresses through, namely 'birth', 'growth', 'maturity', 'decline/revival' and 'death'. However not all firms progress sequentially through the stages nor do they spend an equal amount of time in each stage [Cahill, 1997]. Organisational decline models focus on the final two stages of the lifecycle in an attempt to better understand the failure phenomenon. If the phases of failure can be identified and remedied in time then catastrophic failures can be avoided [Weitzel and Jonsson, 1989, Cannon and Edmondson, 2005]. In the literature the process of business failure has been referred to as "trajectories of corporate collapse" [Argenti, 1976], "downward spiral" Hambrick and D'Aveni [1988], "failure syndromes" [Miller, 1977, p. 43], and "failure pathways" [Moulton et al., 1996, p. 573]. The term 'process' aims to establish a chronological order to the evolution of failure. In some cases this results in the employment of typologies and categorisations to chart the progression of failure. In this section various decline models and failure process models are explored in greater detail.

One of the first researchers to examine the dynamic nature of failure was Argenti [1976]. Upon seeing the need for "a storyline that binds together all these causes and symptoms into a working model", a study that related non-financial failure causes with financial indicators was developed [Argenti, 1976, p. 121]. The research consolidated the notion of 'failure as a process' and 'failure as an outcome with distinctive, identifiable patterns'. The seminal study developed three failure trajectory models and archetypical process stories that encapsulated the basic sequence of events that started each firm on its respective failure trajectory [Argenti, 1976, p. 121]. This set the foundation for a handful of studies that endeavoured to formulate the ultimate trajectory, pathway and/or pattern of failure [Miller, 1977, Sharma and Mahajan, 1980, Hambrick and D'Aveni, 1988, D'Aveni, 1989, Weitzel and Jonsson, 1989, Miller, 1992, Richardson et al., 1994, Moulton et al., 1996, Mellahi, 2005]. However over a decade later D'Aveni [1989] noted

that Argenti's findings were still awaiting confirmation and further explanation. Whilst in later years [Ooghe and DePrijcker, 2008, p. 226] noted to date "few researchers have explicitly analysed failure as a process". The reasons scholars have shied away from studies into business failure include: the negative connotations associated with the concept of failure, the idea that each firm's failure process is atypical and hence not suitable for scientific study, a lack of a systematic body of knowledge on the failure process and a belief that failure is a sudden unforeseeable occurrence rather than a gradual process [Sharma and Mahajan, 1980]. Despite Argenti's [1976] seminal research "the existence of specific errors in different failure paths and within distinctive phases is not clear" and the subtleties of the various failure trajectories are not sufficiently apparent [Ooghe and DePrijcker, 2008, p. 226]. Research in the 2000s began to provide a fuller picture of failure as they consolidate the 'why' and 'how' into their models provide increased insight and knowledge into the complexities of business failure [Shepard and Chowdhury, 2005, Ooghe and DePrijcker, 2008]. Until these studies many models examining organisational decline were primarily derived from literature reviews [Weitzel and Jonsson, 1989, Richardson et al., 1994] and already available public data (e.g. bankruptcy documents/reports), such models are detailed in Table 3.2.

The models depicted in Table 3.2 are based on existing data in the form of financial accounts, sales data, historical economic records, bankruptcy cases, existing case studies and existing investigative reports. Whilst this data is comprehensive and informative it imposes restrictive constraints on the researchers as they can only work with the information available. According to Ooghe and DePrijcker [2008] the boundaries of failure studies need to be pushed further with researchers becoming explicit in their intentions. This coupled with empirical research is required to develop both the failure literature and studies usefulness to practitioners. Academic studies that include primary data collection are limited but growing. Ooghe and DePrijcker [2008] developed a Belgium-based study with a small sample of 12 companies selected based on size, age and industry. Annual accounts and court findings were utilised and a selection of interviews with multiple

Table 3.2: Organisational decline models.

Author(s)	Study	Results	Data
Miller, (1977)	<ul style="list-style-type: none"> • Study is based on syndromes of common behavior patterns found in distressed firms • Failure is the result of three extremes: too little/much product-market innovation, too little/much emphasis on controls and either an overly powerful CEO or one who is merely a figurehead 	<u>Four Failure Syndromes:</u> <ul style="list-style-type: none"> • Impulsive syndrome: Running blind • Stagnant bureaucracy • Headless firm • Swimming upstream: The aftermath 	Forty cases of organisational failure are used in the study
Sharma and Mahajan [1980]	<ul style="list-style-type: none"> • Failure can be predicted by either using causes of failure of performance indicators • Management mistakes as being the major cause of firm failure 	<u>Models Basic Premise:</u> Ineffective management <i>leads to</i> errors which <i>cause</i> a deterioration in performance indicators which may be <i>worsened</i> by unforeseen environmental events that in the <i>absence of effective corrective action</i> results in failure	Forty-six cases of firm failure accessed through publically available published sources
Hambrick and D'Aveni [1988]	<ul style="list-style-type: none"> • Examines the dynamics of failure in large firms, characterised as 'downward spirals' • Testing four hypotheses they conclude the downward spiral divides into four distinct stages over a decade — suggests that indicators of weakness appear a decade before collapse 	<u>Four Central Hypotheses Tested:</u> <ul style="list-style-type: none"> • Corporate strategic behavior • Environmental carrying capacity • Resources slack • Performance 	Fifty-seven matched pairs of large bankruptcies and their matched survivors

(Continued)

Table 3.2: (Continued)

Author(s)	Study	Results	Data
D'Aveni [1989]	<ul style="list-style-type: none"> Decline presented as a pattern of decrease over time of a firm's internal resources Bankruptcy may be delayed/avoided in an environment of growing demand 	<p>Three Failure Patterns</p> <p>Preceding Bankruptcy:</p> <ul style="list-style-type: none"> Sudden decline Gradual decline Lingering 	Forty-nine firms filing for bankruptcy matched with their non-declining pair
Weitzel and Jonsson [1989]	<ul style="list-style-type: none"> Proposes a model of decline founded on the continuum of five stages of organisational problems and weakening environmental support Incorporates both internal and external context the firm operates in 	<p>Five Stages of Decline:</p> <ul style="list-style-type: none"> Initial blindness Inaction Faulty decisions Faulty actions Implementation 	Conceptual model developed using existing literature
Richardson et al. [1994]	<ul style="list-style-type: none"> Examines person-specific characteristics relevant to the leaders of failure-prone organisations Heavily leadership based 	<p>Four Failure-prone Organisational/Leadership Types:</p> <ul style="list-style-type: none"> Boiled frog Drowned frog Bullfrog Tadpole 	Conceptual model developed using existing literature

(Continued)

Table 3.2: (Continued)

Author(s)	Study	Results	Data
Moulton et al. [1996]	<ul style="list-style-type: none"> Failure is examined through firm and industry growth patterns Concludes firm effects are more important than industry effects on firm health 	<p>Four Failure Pathways:</p> <ul style="list-style-type: none"> Market deterioration Market maladaptation Fight for market share Loss of control 	Seventy-three declared bankrupt firms are matched 73 surviving firms
Mellahi [2005]	<ul style="list-style-type: none"> Post-mortem analysis of the collapse of HIH, Australia's second largest insurer Case analysis shows CEO's power and ability to control the board spiralled upward over the four stages of failure and the board's power to influence the CEO spiralled downward 	<p>Four Stages of Failure:</p> <ul style="list-style-type: none"> Conception stage Warning signals Rebellion stage Collapse stage 	Single case-study based on a large Australian firm failure

(Continued)

Table 3.2: (Continued)

Author(s)	Study	Results	Data
Sheppard and Chowdhury [2005]	<ul style="list-style-type: none"> Model speaks to the failure literature but in essence is more a turnaround process model 	<p>Four Stage Model of Failure/Turnaround:</p> <ul style="list-style-type: none"> Decline Response initiation Transition Outcome 	<p>Single case-study based on a large publicised Canadian firm failure</p>
van Witteloostuijn [1998]	<ul style="list-style-type: none"> Study explore organisational decline through competitive dynamics using a Cournot duopoly competition model. The onset of decline results in one of the four possible outcomes: <ol style="list-style-type: none"> Immediate exit Turnaround success Flight from losses Chronic failure 	<p>Chronic Failure Causes</p> <ul style="list-style-type: none"> Strategic competition: if one or both rivals are significantly driven by a sales motive Organisational inertia: may be asymmetric Cost inefficiency: efficient firms may exit the market whilst inefficient firms remain 	<p>Ten global chemical firms sales adjustment behavior is tracked during profitability growth versus decline during 1967–1992. Also data on European ethylene market (approx. 25 producers) obtained from consultancy firm</p>

stakeholders was conducted [Ooghe and DePrijcker, 2008]. A typology of four types of failure processes were emergent from the analysis of the case-study findings, namely:

- (1) Failure process of an unsuccessful start-up
- (2) Failure process of an ambitious growth company
- (3) Failure process of a dazzled growth company
- (4) Failure process of an apathetic established company

The failure process typologies are strongly related to company maturity and management characteristics. It is viewed that these attributes affect a company's ability to attract finance and also management's ability to deal with environmental changes.

Chowdhury's [2002] model mentioned in Table 3.2 was one of the multiple frameworks derived from a literature analysis [Weitzel and Jonsson, 1989, Richardson et al., 1994]. However the author's proceeding paper, Sheppard and Chowdhury [2005], did attempt to embed the model in a degree of empiricism by testing it as a failure process model. 'T. Eaton Company Ltd.', a once successful but ultimately failed Canadian retail giant merchandising firm was the subject of this study, its surviving counterparts Hudson's Bay Company and Canadian Tire were also examined as a means of depicting the model as a failure process model and illustrating how industry counterparts overcame similar market pressures successfully. The four-stage model highlights the sequential steps through which an organisation progresses through before reaching organisational death, they posit that it is much easier to halt failure during the first two stages: (1) decline and (2) response initiation, through tactical measures than to reverse it during the last two stages: (3) transition and (4) outcome, when it is deeper entrenched [Sheppard and Chowdhury, 2005]. The authors view a firm's management, its environment and the way both the firm and environment interact, as playing a key role in a company's survival. As such it is argued that unless the downfall of a firm can be attributed to "some sudden, unexpected and extreme external shock" that could not have

been foreseen, then it could have been avoided [Sheppard and Chowdhury, 2005, p. 241].

Some prominent researchers [Argenti, 1976, D’Aveni, 1989, Laitinen, 1991] argue that not all firms enter a failure process for the same reasons and they do not all approach the downward spiral the same way as characteristics such as age, size, industry and flexibility influence a firm’s reactions [Ooghe and DePrijcker, 2008]. Furthermore several studies discuss the need to consider the technological level of the industry [Acs and Audretsch, 1990, Poutziouris et al., 2000, Madrid-Guijarro et al., 2011]. The failure process begins within a firm long before it becomes apparent in the financial accounts. In fact deterioration in the financial accounts is merely a translation of existing fundamental organisational problems that were left unaddressed [Weitzel and Jonsson, 1989]. As Ooghe and DePrijcker [2008, p. 223] put it, “company failure does not happen overnight”. This perspective of failure progressing through separate and predictable stages is taken a step further by Mellahi [2005] with the concept of warning signals initiating the pre-failure stage, the signals indicate a forthcoming threat to the company’s existence and if they are not spotted and appropriately acted upon by management the firm will begin its journey through the failure process culminating in the company’s collapse. Similarly, Weitzel and Jonsson’s [1991] five-stage model of failure corroborates the view that management inaction can decimate a firm during the initial stages of failure. A perspective offered by van Witteloostuijn (1998) uses a Cournot duopoly model to explore decline through competitive dynamics; it is argued that chronic failure is the result of organizational inertia, strategic competition, and cost inefficiency. Organisational inertia is potentially asymmetric; an increase in profitability is concomitant with “an upward adjustment of sales, whereas a decline in profitability is not associated with a downward adjustment of sales volume” (van Witteloostuijn, 1998, p. 517). Furthermore, with regards to efficiency the argument put forth by van Witteloostuijn (1998) posits that if demand declines, efficient firms may decide to exit first whilst inefficient firms stay in the market. And finally it is argued that strategic competition may lead to chronic failure even when demand is favourable,

if one or both rivals are driven by a sales motive (van Witteloostuijn, 1998).

3.2.1 The time dimension of failure

Organisational decline models illustrate that failure is unlikely to be a sudden occurrence and more often is a direct result of a destructive chain of unchecked events. Finding a solution for this chain of events is time dependent — the sooner management realise what is going wrong and take steps to fix the problem, the better the firm's chances of survival. Identifying the onset of failure is particularly important when changes in performance are gradual as 'a serious response is never triggered, or at least not until it is too late to respond', a reactive approach by management is not a good strategy to adopt when trying to combat failure [Chowdhury and Lang, 1993, p. 9]. However the actions management takes to remedy a situation will greatly depend on the firm's antecedent events or outcomes [Dillon and Tinsley, 2008]. When changes in performance are gradual the required response from management to reverse the decline is seldom triggered; at least not until the firm's performance has dissipated to such a degree that even the most effective action is unlikely to rescue the firm [Chowdhury and Lang, 1993]. Each stage of the failure process is characterised by different symptoms however this is not adequately reflected by prediction models which assumes that all firms follow a uniform failure process [Ooghe and DePrijs, 2008, Balcaen and Ooghe, 2006]. It is for these reasons that there has been a shift in focus towards qualitative methods as a means of truly understanding business failure in recent years [Khelil, 2016, Cope, 2011, Singh et al., 2015, Byrne and Shepherd, 2015, Mantere et al., 2013]. For some businesses the progression of the process towards failure is inevitable and irreversible; it occurs in spite of, or indeed because of, an individual trying to reverse the downward spiral towards closure [Cardon et al., 2005]. In such instances charting the repercussions of the failure experience is insightful as different failure experiences can result in very different outcomes [Thorne, 2000, Wiesenfeld et al., 2008]. The consequences of failure on the individual are explored in greater depth later in this monograph.

3.3 The internal/external debate

As research on business failure became more sophisticated the variety of factors regarded as contributing to failure became increasingly complex; typically they are divided into external factors and internal factors. External factors refer to causes in the environment whilst internal factors pertain to causes within the firm. The debate stems around a nature and nurture perspective similar to an embedded analogy within the field of sociology. The analogy compares formal social systems, such as organisations, with biological organisms [Katz and Kahn, 1966, Hannan and Freeman, 1977, Whittaker et al., 1973]. According to Ormerod [2005] the fundamental difference between biological evolution and firm evolution is that organisations are run by individuals ideally acting in a strategic manner with the intention of becoming increasingly fit for survival, whereas the evolutionary process of the biological species cannot be planned. At one end of the spectrum is a “full information, rational maximising agent of conventional economics” and at the other is an “agent possessed of no cognitive ability whatsoever, with no information and no way to analyse it usefully” [Ormerod, 2005, p. 141]. Yet both organisational entities and biological species struggle against extinction despite their divergent approaches to life. The term ‘milieu’ has been employed to refer to conditions external to an organisational unit over which individuals in the unit have little control [Ulrich, 1987].

This contrasting approach to existence which usually, ultimately ends in the same fate of extinction has ignited a debate in the field of organisational management theory, whereby firms fail due to being a victim of nurture (i.e. the ‘full information, rational maximising agent of conventional economics’ makes poor decisions which ultimately result in the downfall of the firm) or nature (i.e. the agent possessed of ‘no cognitive ability whatsoever, with no information and no way to analyse it usefully’ falls victim to its environment — Ormerod, 2005, p. 141). Whilst this example displays an overly simplistic view of the competing schools of thought, it succeeds in communicating the expansive spectrum of opinion. On one side there are classical industrial organisation (IO) and organisation ecology (OE) academics who assume a deterministic role of the environment, basically arguing that it is exogenous

factors which have the most effect on a firm's chances of survival. Whilst the organisational studies (OS) and organisational psychology (OP) approach takes a voluntaristic outlook, whereby managers are the main decision makers within a firm therefore their decisions and perceptions greatly affect the firm and thus management is the fundamental cause of firm collapse [Mellahi and Wilkinson, 2004]. Each comprising differing assumptions and theories as detailed in Table 3.3, which depicts a clear distinction between both the internal and external factors which impact upon the performance of a firm [Kotha and Nair, 1995, Hansen and Wernerfelt, 1989]. The deterministic approach will be discussed further in the following section and then the voluntaristic approach will be examined.

3.3.1 The deterministic school of thought

The deterministic perspective of business failure posits that industry is more significant than the firm. Failure, according to determinists, is “caused by external factors over which management has little or no control” [Mellahi and Wilkinson, 2004, p. 22]. The Industrial Organisation (IO) and Organizational Ecology (OE) school of thought are two such perspectives that encapsulate the deterministic view.

3.3.1.1 Industrial organisation perspective

The IO perspective is grounded in economics. It is concerned with the environmental conditions within which firms operate and also how firms interact and behave in the marketplace. There is no internal approach taken by the IO perspective as it is predominantly concerned with a particular industry as a whole and also competitor's interactions within industry rather than individual outlooks. It is a perspective which is “underpinned by the Schumpeterian thesis of creative destruction”, whereby jolts in the external environment result in waves of organisational failure [Mellahi and Wilkinson, 2004, p. 23; Schumpeter, 1942]. IO scholars have identified some interesting results to warrant serious consideration of the perspective as a valid system for industrial studies. It has been found that the “ranking of industries by concentration level

Table 3.3: Voluntaristic and deterministic schools of thought.

	Nature/deterministic	Nurture/voluntaristic
Theoretical origins	<ul style="list-style-type: none"> • Industrial Organisation • Organisation Ecology 	<ul style="list-style-type: none"> • Organisation Studies • Organisational Psychology
Premise	Organisations are embedded in their environments therefore external factors have more explanatory power than firm level factors. Management has little or no control over external factors, thus causing failure.	Who makes the decision is regarded as being more important than the external context within which the decision is made. Failure is linked to internal inadequacies in dealing with external threats.
Failure is caused by:	Demographic, technological, regulatory and economic changes. Also changes in consumer tastes, cyclical decline in demand, increased competition, technological uncertainty.	Management's perception of a situation, their motivations, feelings, and experiences all influence whether they respond to organisational crises appropriately or not.
Key authors	Aldrich [1979] , Boone and van Witteloostuijn [1995] , Sutton [1991] , Hannan and Freeman [1977]	Hambrick and Mason [1984] , Finkelstein [2005] , Ooghe and DePrijcker [2008] , Hambrick [2007]

tends to be closely similar from one country to another: an industry that is dominated by a handful of firms in one country is likely to be dominated by a handful of firms elsewhere too" [Sutton, 1991, p. 3]. Additionally a study by Dunne et al. [1988] highlighted that although entry and exit patterns differ considerably across industries, a high degree of correlation exists between entry and exit rates across industries and the variances in industry entry and exit patterns persist over time. Thus it can be deduced from these findings "that substantial, systematic heterogeneity exists between organisational populations and that some underlying characteristics of industries strongly constrain equilibrium structures" [Boone and van Witteloostuijn, 1995, p. 276].

Three underlying assumptions reflect the IO perspective: First, the external environment imposes pressure and constraints on firms' strategies, which can lead to failure. Secondly, it is assumed that a similar strategy is pursued by most firms operating in the same industry, or within a certain segment of the industry. Thirdly, decision makers in organisations are assumed to be rational agents acting in the firms' best interests and thus failure could not be caused by them alone [Mellahi and Wilkinson, 2004, Arthurs et al., 2008]. According to the IO literature the primary causes of business failure stem from changes in consumer tastes, cyclical demand declines, increased competitive forces and turbulent demand structures due to low switching barriers for core customers [Baum and Singh, 1994, Sheppard, 1995, Mellahi and Wilkinson, 2004]. Other factors cited as influencing the lifespan of firms result from factors such as technological change, economic change, regulatory change and demographic change [Scott, 1992, Anderson and Tushman, 2001]. In recent years technological uncertainty is a prominent concern for many industries, it is at its height when one technological regime replaces another, yet it is unclear which variant of the new technology will become the industry's accepted norm [Tushman and Rosenkopf, 1992, Anderson and Tushman, 2001]. Technological change has the power to overturn existing industry structures and in keeping with Schumpeterian tradition interims of intensive change and technological progress alternate with periods of relative stability and incremental advance [Anderson and Tushman, 2001].

The relationship between organisations and the environment can be explained by three factors: munificence, complexity and dynamism [Dess and Beard, 1984]. Munificence refers to the availability of resources and complexity pertains to the complex linkages both within a firm and between a firm and its external networks [Dess and Beard, 1984]. IO scholars suggest an adverse relationship between the availability of resources and the organisational mortality rates and a positive correlation between environmental complexity and the organisational mortality rate [Anderson and Tushman, 2001]. Dynamism refers to unpredictability and an absence of pattern, it is an uncertainty that results in the “inability to predict or foresee” [Anderson and Tushman, 2001, p. 683]. In unpredictable environments success can be fragile rather than enduring and a higher proportion of firms survive because they are lucky, not because they are good [Barnett and Hansen, 1996]. Learning curves are shallower and the turbulence may lead to entrepreneurs revising their expectations, consequently this may require individuals to unlearn lessons of the past (Hedberg, 1981 as cited in Anderson and Tushman, 2001).

The arguments presented by the industrial organisation researchers regard the marketplace within which a firm is operating, as the key influencer of a firm’s chances of survival and success. As such external market forces such as cyclical demand declines and turbulent demand structures are regarded as having more impact on a firm’s wellbeing than the manner in which a firm is managed [Sheppard, 1995]. Another facet in the deterministic school of thought is organisational ecology; this perspective also posits that external factors are more influential than internal factors when it comes to firm survival however it is underpinned by a different set of arguments [Dess and Beard, 1984].

3.3.1.2 Organizational ecology perspective

The OE perspective regards organisations as entities that react slowly to changes in the environment and as such are characterised by structural inertia [Hannan and Freeman, 1977]. As organisations are required to be reliable and accountable for their actions organisational structures that guide day-to-day activities need to be highly reproducible

and dependable, thus rules and regulations that ensure reliability and accountability must remain in place and actions with a stable process blueprint will be chosen over a less controllable action in an effort to ensure consistency and stability [Boone and van Witteloostuijn, 1995]. As such organisational dissolution, according to an organisational ecologist, occurs when an organisation “ceases to carry out the routine actions that sustain its structure, maintain flows of resources, and retain the allegiance of its members” [Freeman et al., 1983, p. 694]. The premise of OE is one that believes organisations require a high degree of structural inertia and this is a criterion for survival [Hannan and Freeman, 1984]. Structural inertia is derived from internal structural arrangements and environmental constraints, however it specifically refers to the core characteristics of an organisation [Hannan and Freeman, 1977]. The organisations environment generally negatively evaluates adaptations to the core of an organisation, whereas changes in the periphery are usually positively evaluated [Hannan and Freeman, 1984]. The main purpose of organisational ecology is “to understand the mutual interactions within and among the populations and communities comprising organisational ecosystems and the mechanisms and processes underlying their growth, regulation and decline” [Baum and Singh, 1994, p. 5]. The main components considered important by organisational ecologists are organisational age [Stinchcombe, 1965, Henderson, 1999]; organisation size [Barnett and Amburgey, 1990, Hambrick and D’Aveni, 1988]; population density [Hannan and Freeman, 1988] and industry life cycle [Balderston, 1972; Agarwal and Sarkar, 2002]. The last factor posits that firms follow a predefined sequence independent of firms’ strategies and managements whereby organisational failure is a natural irreversible phenomenon inherent to efficient market operation [Klepper, 1997].

Another facet of OE is niche width theory [Hannan and Freeman, 1977], this focuses on environmental variability as a means of explaining differential survival rates, first the specialist, which possesses few slack resources and concentrates on exploiting a narrow range of customers, and secondly, the generalist, which appeals to the mass market and exhibits tolerance for more varied environments. Generalists drive out

specialists in fluctuating environments, and the reverse is true in stable environments [Hannan and Freeman, 1989]. Overall the OE perspective is built on population density dependence logic [Hannan and Freeman, 1989], this views organisational mortality rates to be dependant on the total number of firms within the relevant population. A U-shaped relationship is suggested between density and failure, organisational mortality starts high and falls as legitimacy increases, it then begins its rise again as competition increases [Hannan and Freeman, 1988]. The aforementioned determinants relied upon by OE demonstrate the overwhelming support for the perspective that organisations are essentially embedded within their environments and as such environmental factors have more influence than organisational factors. It is argued that as environments change faster than organisations, the performance of the firm is dictated by the environment within which it operates rather than the firm's strategic choice [Mellahi and Wilkinson, 2004]. Organisational ecologists have accumulated a wealth of empirical evidence from a diverse range of organisational settings however a trade-off has been favoured to the extent that generality of theories has been sacrificed for precision and realism [Singh, 1993]. Another fundamental weakness in the perspective stems from the fact that the hard data gathered such as firm size, age and density reveal little about the theoretical explanations underlying the empirical regularities.

The deterministic perspective of strategy formulation argues that firms should adapt to their environments because characteristics of the environment favour particular strategies over others. Also if chances of survival are low for a certain variant it does not mean that organisations in this industry are destined to fail rather that the ability of management to change the organisation is of particular importance. It has been argued that OE approaches do not relinquish individuals from responsibility over their organisations' success, regardless of whether their actions are intelligent or foolish, planned or improvised, individuals do exert influence over organisations' future [Baum and Amburgey, 2002]. However in times of uncertainty and ambiguity, severe constraints are placed on the ability of bounded rational individuals to consistently conceive and implement changes that improve organizational

success and survival chances in the face of competitive forces [Baum and Amburgey, 2002]. Thus, “in a world of high uncertainty, adaptive efforts . . . turn out to be essentially random with respect to future value” [Hannan and Freeman, 1984, p. 150]. Environmental determinism was challenged by Bourgeois [1984, p. 589], who stated that the “strategic decisions made by managers cannot be assumed to be the product of deterministic forces in their environment. Any such assumptions would eliminate the very need for management because it implies that the strategy of an organisation follows more or less automatically from a technical appreciation of its environmental situation. On the contrary, the very nature of the concept of strategy assumes a human agent who is able to take actions that attempt to distinguish one’s firm from the competitors”. The OI/OE perspective regards external factors as the predominant cause of firm collapse and these factors tend to be out of the control of management and are often dependant on the economy and the decisions of policymakers. The most common external factors are interest rates, the external price environment and inflation, wage costs, declining markets, tax rates, market competition, bad debts and late payments. Presently, the external factors throwing firms into disarray are likely to stem from difficulty in raising capital, low consumer confidence and a decimated global economy due to the financial meltdown.

3.3.2 The voluntaristic school of thought

The voluntaristic perspective of business failure rejects the assumption that the environmental factors have more explanatory power than firm-level factors [Khelil, 2016]. It is founded on the belief that management is the main decision maker within a firm, therefore their decisions and perceptions greatly affect the firm and thus management is the fundamental cause of firm collapse [Mellahi and Wilkinson, 2004]. The two perspectives that elucidate the voluntaristic view are organisational studies (OS) and organisational psychology (OP). The central premise of the OS/OP literature is that who makes a decision is more important than the external environment within which the decision is made [Mellahi and Wilkinson, 2004]. The OS/OP approach views internal factors

as the main precursors of business failure, and these endogenous factors are unique to the firm in question and vary between companies. Management practices, accounting practices, marketing decisions and financial planning are all examples of internal factors that impact upon a firm's performance. It has been suggested that internal factors have a greater impact on the overall performance of a firm [Hansen and Wernerfelt, 1989, Fredland and Morris, 1976]. [Malone, 2004, p. 18] makes reference to research findings discovering that just over 18% of business failures were outside of the control of their leader's. Ooghe and DePrijcker [2008, p. 237] further reinforce this; they posit that unsuccessful start-ups did not find any threat from its general environment, except in recessionary times. Much of the internal research identifies causes that collectively represent 'bad management' as the primary root of business collapse [Kennedy, 1985, Haswell and Holmes, 1989; Hambrick and D'Aveni, 1992; Chowdhury and Lang, 1993, Beaver and Jennings, 2005, Finkelstein, 2005, Ooghe and DePrijcker, 2008]. A common problem attributed to small enterprises is that senior management responsibility is primarily invested in one person, who is unlikely to possess the entire spectrum of skills required to start and develop a new business [Richardson et al., 1994]. The voluntaristic approach will now be examined in further detail.

3.3.2.1 Organisation studies (OS)/organisational psychology (OP)

Essentially the OS/OP perspectives regard failure as occurring due to internal inadequacies in dealing with external threats [Mellahi and Wilkinson, 2004]. Argenti [1976] uses an interesting analogy of a sinking ship to sum up the collapse of a company at the hands of an ineffective manager:

'If a ship is in good condition and the captain is competent it is almost impossible for it to be sunk by a wave or a succession of waves. Even if there is a storm, the competent captain will have heard the weather forecast and taken whatever measures are needed. Only a freak storm for which inadequate notice has been given will sink the ship.'

This quote mirrors the sentiments of Sheppard and Chowdhury [2005] discussed earlier, a common theme amongst process models is the view that management is regarded as “the origin of most problems” [Ooghe and DePrijcker, 2008, p. 234]. According to Dillon and Tinsley [2008] the actions of management in the face of adversity are related to past experiences, if the firm has avoided failure previously then management will be far more likely to make riskier decisions in the future despite any reasonable reservations they may have. This relates to the arrogance and complacency which success (or basically, lack of failure) can breed within a firm. Learning from repeated successes can have a strong affect on a company. It acts as a straightjacket, which changes it from its once agile, adaptive state to one of structure and process [Baumard and Starbuck, 2005]. Such complacency results in poor decision-making from management and there is a general consensus in the literature that poor decision-making is the cornerstone of managerial mistakes and thus, of business collapse [Miller, 1992].

Finkelstein [2005] notes that many failures are essentially a product of the companies CEO, whilst Richardson et al. [1994, p. 9] state that the job of curbing or reversing potential business failure lies “first and foremost, to organisations’ top managers”. Additionally Wiesenfeld et al. [2008, p. 237] noted that failures contain the “hallmarks of mismanagement”. However, it is Hambrick and D’Aveni [1992, p. 1450] who go a step further through declaration that it is often “strong-willed, dominating” and “egomaniacal” executives that are “at the helms of unsuccessful firms”. These sentiments relate directly to upper echelon theory [Hambrick and Mason, 1984] which argues that managers’ characteristics, beliefs and perceptions influence their decisions and thus affect firm performance or lack thereof. How an entrepreneur runs his or her business is an extension of their own personal social value system and is therefore highly impacted by the characteristics and beliefs of its founder rather than environmental forces [Finkelstein and Hambrick, 1996, Hambrick, 2007]. Sheth and Sisodia [2005, p. 29] argue that “an organisations unwillingness to change comes from the myopia of its leadership, an inability to change, on the other hand, come from its processes”. Furthermore Pitts [2008, p. 17] postulates that a “business will have the blueprint of the leaders personality ingrained into it”.

The number and variety of experiences an individual has affect the way the individual reacts and responds in various situations [Barker, 2005]. Also career variation has an influence, as people who have spent an entire career in the same organisation often have limited perspectives [Hambrick and Mason, 1984]. Research also indicates that when a firm is faced with an external threat a new manager tends to view the cause of the crisis as internal and hence controllable [Mellahi and Wilkinson, 2004]. However long-serving managers have a tendency to attribute failure to external, uncontrollable and temporary causes and are inclined to ignore internal stimulants of failure, which in turn accelerates the problem [Mellahi and Wilkinson, 2004]. It has also been noted that people are prone to taking credit for their own successes but have a tendency to blame failures on circumstances beyond their control [Barker, 2005]; this concept will be explored in greater detail later on with explicit reference to attribution theory.

The effects of organizational decline and the responses it evokes are regarded as diametrically opposing depending on the theoretical perspective taken. Mone et al. [1998] argue that if decline represents a gap between performance and aspirations then according to organizational learning theorists it stimulates adaptation and organizational change Cyert and March [1963], Kiesler and Sproull [1982]. Conversely threat rigidity theorists argue that decline is inhibiting as it constrains cognitive function and restricts decision-making, thus reducing the potential for adaptation and organizational change Mone et al. [1998], Staw et al. [1981]. The premise of threat rigidity effect theory is that individuals, groups and organisations have a tendency to behave rigidly in threatening situations and attempt to maintain status quo [Mellahi and Wilkinson, 2004]. Management runs the risk of making poor choices when faced with the stressful conditions experienced through firm difficulty. A choice such as enforcing cost cutting measures when a firm is already in a weak strategic position is more likely to place the firm in a worse position strategically rather than strengthen the case for survival [Mellahi and Wilkinson, 2004]. This is an example of ‘error-amplifying decision trap’ where a poor response to a problem exacerbates the issue rather than rectify it [Schulman, 1989].

The ‘curse of success’ is another facet of firm collapse that is discussed in the OS literature [Kelly and Amburgey, 1991, Miller, 1992, Starbuck et al., 1978, Argenti, 1976]. According to McGrath [1999, p. 16] an unintended consequence of pursuing success and avoiding failure is the tendency to attain not only valuable lessons “but also the distortions of those lessons”. Learning from repeated successes makes future failure more likely as periods of continued prosperity foster structural and strategic inertia, extreme process orientations, inattention and insularity [Baumard and Starbuck, 2005]. In a sense management become dazzled by success and complacency sets in [Ooghe and DePri-jcker, 2008]. Furthermore, Tinsley et al. [2011] argue that individuals who have narrowly escaped failure in the past choose significantly riskier alternatives in the future than those who have not experienced near misses. The near miss is seen as a success, thus reducing perceived risk and increasing one’s comfort with risky decisions. Having the ability to recognise failure helps entrepreneurs gain further insights into success, “failure is not a lack of success but an integral part of it” [Thorne, 2000, p. 306]. Constant success on the other hand breeds failure; it can make companies complacent and even arrogant, firms can get “locked in to certain orthodoxies and therefore do not take charge of their own destinies fast enough” [Sheth and Sisodia, 2005, p. 28]. The experience of failure can ultimately lead to the path to success; a scenario termed a ‘successful failure’ [Kriegesmann et al., 2005], whereby individuals are provided with a personalised learning experience as they learn from their own failure trajectory. Other scholars [Schoemaker and Gunther, 2006] suggest making ‘deliberate mistakes’ as a means of combating failure. Then if one of a company’s core assumptions is wrong, the firm can achieve success faster by deliberately making errors than by considering only data that support the assumption. A factor that may inhibit learning from failure is stigmatization, as labelling failure negatively affects both entrepreneurs and organisations that fail to learn from it [Thorne, 2000]. However according to Malone [2004,

p. 20] “the ability to fail and bounce back seems to be a common characteristic among successful owners” perhaps because they realise that they do not know everything and are more willing and receptive to learning. Learning from failure and stigmatization will be explored in greater detail later in this monograph.

4

Business Failure in the Entrepreneurship Literature

The topic of business failure remains an understudied aspect of the entrepreneurial process [Jenkins and McKelvie, 2016], however interest in, and momentum for, research in this area is growing. According to Jenkins and McKelvie [2016] entrepreneurial failure remains unclear due to the varying conceptualisations of failure. It can be explored using objective or subjective criteria, at both the firm and individual levels of analysis. The way in which it is conceptualised influences comparability across studies and the relevance of research questions posed [Jenkins and McKelvie, 2016]. The remainder of this monograph focuses on the topic of business failure within the entrepreneurship literature. Contemporary studies related to various aspects of the phenomena are discussed. Particular attention is given to the areas of enquiry that have, thus far, dominated literature in the area. Primarily attributions, learning, emotions and recovery are the growing themes within the contemporary business failure entrepreneurship literature that are covered. This section begins with an exploration of research on causes of failure from the entrepreneurs' perspective.

4.1 Causes of failure

The importance of remedying internal problems as they occur is acknowledged by Argenti [1976, p. 122] — “only corrective actions that would solve the fundamental causes of the difficulties would really lead to lasting recovery”. This view is further supported by Abdelsamad and Kindling [1978, p. 372] as they see potential in reducing the rate of failure “if some of its causes are recognized and preventative action is taken”. A similar perspective is held within the turnaround literature as Schendel and Patton [1976] argue that significant declines and sharp drops in performance are often prerequisites for successful turnaround efforts. Their key contribution lay in the dichotomy of causes and the manner in which these may influence the appropriateness of the turnaround response. In contrast Fredland and Morris [1976] posit that the search for the causes of failure is largely concerned with ascribing blame — a futile exercise, given the complexities involved in small business failure. Despite this perspective Fredland and Morris [1976] do concede that recognition of the differences between endogenous and exogenous causes (as discussed in Section 3.3) of business failure facilitates further clarification of the phenomena. As noted by Wagner, III and Gooding [1997], to understand failure events we must determine the cause of those failures.

4.1.1 Attribution theory

Although causes of business failure were the subject of much interest during the 1970s through to the 1990s, within the entrepreneurship literature explicit discussion about failure causes is muted. Instead the sources of failure are explored using softer language, the term ‘attribution’ is adopted in place of ‘cause’. A cause indicates a reason, a priori explanation whereas attributions represent *perceived* cause. Attributions are mechanisms through which people explain their behavior, the actions of others and events around them [Heider, 1958, Zacharakis et al., 1999]. The attributions an individual makes for an event influence his or her cognitive, behavioral and affective responses to the event [Dweck and Leggett, 1988]. Exploring failure

through attributions rather than causes is particularly suited to the entrepreneurship field as it enables failure to be examined from the viewpoint of the entrepreneur. An individual making attributions about an event has critical implications for the individual's ability to learn from, make sense of, and prosper following the failure experience [Shepherd, 2009a,b].

A key debate within the management literature has arisen surrounding biases associated with attribution theory, in particular, self-serving attribution bias. Such a bias incorporates the notion that individuals tend to assume their own actions (internal attributions), explain positive outcomes, whilst actions independent of themselves (external attributions) explain positive outcomes [Rogoff et al., 2004]. Similarly entrepreneurs' overconfident in their abilities are more likely to blame factors outside of their control for failure [Busenitz and Barney, 1997, Eggers and Song, 2015]. However a study by Mantere et al. [2013] strongly suggests that entrepreneurs do not avoid taking responsibility for failure. In fact entrepreneurs' abilities to confront their failure experience is described as a form of 'catharsis'. Some earlier studies [Gaskill et al., 1993, Zacharakis et al., 1999] have also posited that entrepreneurs are more likely to make internal attributions for failure than external attributions. Such studies present entrepreneurs as differing from the general populace when it comes to failure attributions, thus highlighting the complexity of entrepreneurs' business failure attributions. This distinction is important, attributions not only provide insight into perceived causes of failure, they also dictate how entrepreneurs feel about the failure and in turn how they react and learn from the experience [Shepherd, 2003, Shepherd and Cardon, 2009]. Furthermore if the failure is largely attributed to external causes the individuals may feel that they have less to learn from the experience yet their beliefs about others, the organization, and the environment are likely to change [Shepherd et al., 2011]. Various factors have the power to influence the way in which an entrepreneur attributes his or her failure experience, one such factor is time. Over the passing of time individuals gain distance from the event and have an ability to view it as an external observer rather than a participant [Libby and Eibach,

2002]. The distance in turn provides a new perspective on the event and has been found to influence one's attributions [Pronin and Ross, 2006, Shepherd et al., 2011].

Self-esteem can also impact attributions with individuals who have high self-esteem more likely to direct negative attention away from themselves and towards more positive aspects of their character so their ego remains unharmed. In this instance failure may become compartmentalized and learning from it is increasingly difficult [Baumeister, 1996]. Failure can provide a rich learning experience however the ability to utilize and harness that learning effectively requires accurate attribution of the cause of failure [Yamakawa et al., 2010]. A selection of key contributions on business failure and attribution theory is presented in Table 4.1. The proceeding section delves into the factors that impact entrepreneurial learning from a failure experience in greater detail.

4.2 Literature related to learning from business failure

In the past, much of entrepreneurial research related to uncovering entrepreneurs' traits. This is an "old-style typology thinking" [Sarasvathy, 2004, p. 701] controversial in the entrepreneurship field [Rauch and Frese, 2007], and less sophisticated than robust contemporary trait research incorporating genetics and psychology. It attempted to discern "who an entrepreneur is", however such an approach fails to account for an entrepreneur's ability to learn and change [Gartner, 1989, Wang and Chugh, 2014]. According to Minniti and Bygrave [2001, p. 7] "entrepreneurship is a process of learning, and a theory of entrepreneurship requires a theory of learning". Scholarly interest in entrepreneurial learning has grown since 2000 (for a comprehensive overview see Wang and Chugh, 2014) and it was the subject of a special issue of *Entrepreneurship Theory and Practice* in 2005. The work of the late Jason Cope has been particularly instrumental in driving this line of enquiry and has contributed significantly to the formulation of entrepreneurial learning (EL) theory through phenomenological analysis [Pittaway and Thorpe, 2012, Cope, 2011]. EL is defined as the

Table 4.1: Attributions and business failure.

Author(s)	Key findings
Yamakawa and Cardon [2015]	Examines causal ascriptions for failure and the perceived learning for entrepreneurs that re-entered self-employment following a failure experience. Internal unstable failure ascriptions enhance learning from failure, particularly when the entrepreneur takes a shorter time to restart. Meanwhile external stable failure ascriptions hinder learning from failure especially when entrepreneurs change industry with their subsequent venture.
Mantere et al. [2013]	Different actors make sense of entrepreneurial failure in different ways. Narrative attribution accounts of the failure experience help individuals understand the complex failure process. Seven narrative accounts were unearthed — catharsis, hubris, zeitgeist, betrayal, nemesis, mechanistic and fate. Results suggest that entrepreneurial failure attributions do not conform to the norms of attribution theory in that entrepreneurs do not avoid taking personal responsibility for failure through self-serving biases.
Zacharakis et al. [1999]	The study exploring matched pairs of VCs and entrepreneurs to assess differences in causes of business failure found that entrepreneurs are more likely to make internal attributions for failure than external attributions. However entrepreneurs view others more harshly — they attribute internal factors 58% of the time for their ventures but 89% of the time for others' ventures.
Rogoff et al. [2004]	Both self-serving bias and actor-observer bias, inherent to attribution theory, are observed among entrepreneurs when discussing factors that impede small business success. Thus concluding that entrepreneurs have a bias towards blaming external factors for failure.
Yamakawa et al. [2015]	In order to facilitate effective learning from failure entrepreneurs should find some aspect of failure to attribute internally rather than blaming predominantly external, environmental factors. However internally attributing business failure can be harmful, if there is an increasing number of failures it diminishes one's self-efficacy.
Mandl et al. [2016]	This paper explores how entrepreneurs' attributions for past failure predict their future activities. Entrepreneurs who experience failure and go on to start a subsequent venture differ from those who do not re-enter an entrepreneurial career. Further analysis of entrepreneurs' failure attributions is called for.
Franco and Haase [2010]	Owner-managers attribute poor firm performance to causes that differ from reality. Owner-managers mainly cite external factors as the cause of failure however internal factors are not satisfactorily recognized. Individuals in the study adhered to the tenets of attribution theory and were found to be more likely to ascribe failures to external causes.

“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” [Cope, 2005, p. 374]. EL theory proposes that discontinuous experiences during the entrepreneurial process stimulates higher forms of learning important to the entrepreneur both personally and professionally [Cope, 2003, 2011, Minniti and Bygrave, 2001]. Failure is one such discontinuous event.

Firm failure is largely viewed by society as a negative consequence of business; however failure provides a lens for truly understanding one’s success. It is a highly personalised opportunity for learning and given that the majority of business owners leave business through a revolving door rather than a one-way exit [Stokes and Blackburn, 2002], failure is merited as an important learning tool [Cope, 2011, McGrath and Cardon, 1997, Schoemaker and Gunther, 2006, Ucbasaran et al., 2010]. Failure acts as a catalyst for further economic and business development [McGrath, 1999], however at a micro-level it also has an effect on the individual. For entrepreneurs, learning from business failure occurs when they revise “their existing knowledge of how to manage their own business effectively [Shepherd, 2003, p. 320], through expanding their range of potential behaviors, changing ineffective practices, highlighting mistakes and augmenting skills and knowledge about the entrepreneurial process [Cope, 2011]. Seminal research by Cope [2005, 2011] led to the development of four broad themes that encompass an entrepreneurs’ learning outcomes from failure. First, *oneself*, the failure experience allows for immense learning about oneself, one’s strengths, weakness, skills, attitudes, beliefs, and the areas one needs to develop. It is a transformative learning that enables entrepreneurs to better understand themselves. Secondly, *the venture*, an entrepreneur gains greater perspective on the strengths and weaknesses of the venture, in addition to understanding the reasons for the failure. Thirdly, *networks and relationships*, failure also provides an opportunity for social learning outcomes. Entrepreneurs that experience failure learn lessons related to the nature and management of relationships both internal to the firm and in their wider network. Fourthly, *venture management*,

this learning outcome transcends the specific failure context and equips entrepreneurs with the skills needed to lead and manage entrepreneurial pursuits. An entrepreneur learns about leadership and the effective management of business in relation to the wider environment.

Contrary to expectation entrepreneurs that experience failure are not less confident or more likely to steer clear from entrepreneurial opportunities in the future; in fact, such individuals display similar or greater amounts of positivity and entrepreneurial eagerness than their successful counterparts [Cardon et al., 2011]. Failed entrepreneurs see their failure as a rite of passage or an “entrance fee for entrepreneurship” [Ucbasaran et al., 2006, p. 24], and “recovery and re-emergence from failure is a function of distinctive learning processes” [Cope, 2011, p. 604]. Learning from one’s personal experience of failure allows for a tailored form of learning that cannot be taught, merely attained through practice [Kriegesmann et al., 2005]. The way an individual acts during setbacks can have a vital influence on subsequent performance as it establishes how one copes in threatening, stressful situations [Locke and Taylor, 1991]. Despite the interest in how entrepreneurs can learn from failure [Cope, 2011, Minniti and Bygrave, 2001, Shepherd, 2003, Ucbasaran et al., 2013], the learning process remains unclear [Yamakawa and Cardon, 2015]. Learning is neither automatic nor instantaneous [Shepherd, 2003], with entrepreneurs varying in their ability to maximize learning from failure [Ucbasaran et al., 2010]. Prior experience of failure does not necessarily lead to future success [Green et al., 2003].

A small but growing number of studies investigate how prior failure impacts entrepreneurial learning for future venturing [Yamakawa et al., 2015, Yamakawa and Cardon, 2015, Mandl et al., 2016]. These studies are important, as learning is not complete until the entrepreneurs can test their new ideas in another context [Shepherd, 2003]. However “the scientific understanding of the negative effects of errors is much better developed than that of the potential positive effects of errors” [Van Dyck et al., 2005, p. 1228]. Essentially it is difficult to measure learning outcomes from failure [Yamakawa and Cardon, 2015]. It has been argued that failure can increase an entrepreneur’s likelihood of

success when it is used as a learning instrument [Cope, 2011, Sarasvathy and Menon, 2003]. Yet the empirical evidence of entrepreneurial learning remains weak [Frankish et al., 2013]. Cognitive evidence is based on entrepreneurs' self-reporting about their learning experiences [DeClerq and Sapienza, 2005], an approach criticised by Frankish et al. [2013]; they question the likelihood that an individual will claim to have learned nothing from their failure. Ultimately DeClerq and Sapienza [2005] posit that objective learning is almost impossible to verify, whilst Frankish et al. [2013] argue that the role of chance and circumstance increases the difficulties in separating lessons from the 'noise'. Underpinning work on entrepreneurial learning is the assumption "that entrepreneurs learn and, as a consequence, their business performance improves" [Frankish et al., 2013, p. 81]. Jenkins and McKelvie [2016] highlight three existing streams of research that may be useful for scholars keen to focus on entrepreneurial learning from failure, these include real options reasoning [McGrath, 1999], knowledge diffusion [Hoetker and Agarwal, 2007] and project failure [Corbett et al., 2007]. A number of contemporary studies explore whether prior experience of business failure impacted entrepreneur's learning ability; the results are displayed on Table 4.2. The key findings do not provide conclusive support for entrepreneurial learning as a result of a business failure experience. The process of learning from failure thus still remains a blackbox, by and large [Yamakawa and Cardon, 2015, Cannon and Edmondson, 2001, Jenkins, 2012]. There are opposing views on the potential learning benefits of the failure experience and both have merits. Many factors affect the learning capacity of entrepreneurs; these include sensemaking [Yamakawa et al., 2015] and grief [Shepherd, 2003, Shepherd and Kuratko, 2009]. These elements are explored in further detail in the proceeding section of the monograph.

4.3 Literature related to emotions and failure

In recent years the entrepreneurship field has experienced an increased interest in exploring the emotional dimensions of entrepreneurship. Entrepreneurship became recognised as an emotional journey [Baron,

Table 4.2: Learning after a business failure experience.

Author(s)	Key findings
Frankish et al. [2013]	The study showed that prior experience as an owner had no substantial influence, positive or negative, on chances of survival for 3 years. Furthermore, amongst those that survive 3 years, they are no less likely to engage in “life threatening” behavior the more experience they accumulate. Even if entrepreneurs learn something from their experience it does not clearly translate into improved performance.
Nielsen and Sarasvathy [2011]	Findings indicate that previously failed entrepreneurs were more likely to start-up a second time. However “the mere act of failing did not result in learning effects. Instead, some form of absorptive capacity (in terms of education and moral support) was necessary for entrepreneurs to benefit from the learning possibilities inherent in their experience of failure in the first firm” (2011, p. 4).
Ucbasaran et al. [2010]	Experience of business failure offers learning opportunities but only under certain conditions. Entrepreneurs that experience business failure are heterogeneous and learning differs based on entrepreneur types. Findings support the validity of opposing views on possible learning benefits.
Metzger [2006, 2007]	Previous entrepreneurial failure experience (measured by bankruptcy) does not increase subsequent firm performance (2006). In fact entrepreneurs who re-start after failure are significantly more likely to fail (2007).
Cope [2003]	Although learning is considered a continuous process there is more to be learned from discontinuous events rather than incremental, habitual, ‘lower-level’ learning. Discontinuous events stimulate a higher form of learning and critical reflection that can be transformational.
Toft-Kehler et al. [2014]	Study focused on how experience affects performance by examining longitudinal data on focused on the majority stakeholder of newly created privately owned Swedish firms in knowledge-intensive industries between 1990 and 2007 ($n = 65,390$). Results show that learning in entrepreneurship is possible but conditional on important content and contextual barriers. Individuals must leverage prior experiences, a skill that takes time to develop. Essentially experience can negatively affect performance among novice entrepreneurs however it can positively affect the performance returns among expert entrepreneurs. Furthermore context similarities between prior and current ventures strengthen this direct effect.

2008] and the central role affect and emotions play in entrepreneurship became the subject of studies [Foo, 2011, Shepherd et al., 2009a,b, 2011]. The field ignited with studies on affect culminating in a 2012 special issue in *Entrepreneurship Theory and Practice* on entrepreneurial emotion, which was referred to as a ‘hot topic’ [Cardon et al., 2012]. Entrepreneurial emotion is defined by [Cardon et al., 2012, p. 3] as “the affect, emotions, moods, and/or feelings — of individuals or a collective — that are antecedent to, concurrent with, and/or a consequence of the entrepreneurial process, meaning the recognition/creation, evaluation, reformulation, and/or the exploitation of a possible opportunity”. One criticism of the progress made in the area of entrepreneurial emotion stems from the fact that most work “deals with either the early or late stages of a business” [Cardon et al., 2012, p. 3].

According to Cardon et al. [2005] entrepreneurs often form a personal connection and identify with their business to the extent that the firm is seen as an extension of themselves. When a business or project fails it may damage an emotional bond between the entrepreneur and the idea/firm, personal and professional relationships may be lost as a firm closes and a collective identity is fractured [Shepherd and Kuratko, 2009, Wolfe and Shepherd, 2015]. In business, emotional attachments can be difficult to break [Burgelman, 1994], thus when failure occurs may invoke an array of negative emotions in the entrepreneur including humiliation and pain [Cardon and McGrath, 1999, Cope, 2011, Ucbasaran et al., 2013, Singh et al., 2007]. However people respond to failure in different ways, some are overcome with feelings of guilt and shame attached to failure whilst others recover quickly. Similarly, embarrassment and grief can adversely affect self-esteem and confidence for some, whilst others are only momentarily affected [Boss and Sims Jr, 2008, Shepherd and Kuratko, 2009, Jenkins et al., 2014]. Emotion regulation is the process individuals engage to influence the emotions they have, when they have them and the way in which they are expressed/experienced [Gross, 1998, Boss and Sims Jr, 2008]. Emotion regulation is paramount in shaping the entrepreneurs perspective of their failure experience. Furthermore “if a person uses emotion regulation in the form of situation selection before a failed event occurs, that

event may never happen, or it may never be considered a failure” [Boss and Sims Jr, 2008, p. 141]. Fear of failure is one such emotion that influences entrepreneurial behavior. According to Welpe et al. [2012] fear reduces exploitation and minimizes the relationship between evaluation and exploitation. Thus fear of failure leads to entrepreneurs avoiding situations that may result in failure or reacting poorly to potential failure situations. This leads to an ‘error-amplifying decision trap’ whereby a poor response to a problem merely results in exacerbating the issue rather than rectifying it [Schulman, 1989].

Conversely joy and anger increase exploitation and magnify the relationship between evaluation and exploitation [Welpé et al., 2012]. Optimistic individuals are more inclined to see adversity as a challenge and as such maintain confidence during the failure process [Ucbasaran et al., 2013]. Confidence (i.e. an emotionally-laden belief that engenders the positive emotions) and overconfidence can engender entrepreneurial resilience and may reduce the emotional costs of failure [Hayward et al., 2010, Ucbasaran et al., 2013]. Thus effective emotion regulation has the potential not only to reduce failure but it can also increase chances of success. Studies exploring emotion in the final stages of a business coalesce mainly around coping and recovering from business failure. A notable contributor to this field is Dean Shepherd, who, along with other researchers, has driven the research strand on entrepreneurial grief in the aftermath of a failure experience [Shepherd, 2003, 2009a,b, Shepherd and Kuratko, 2009, Shepherd and Cardon, 2009, Shepherd et al., 2011].

4.3.1 Grief

Grief usually occurs as a result of the loss of something important [Archer, 1999]. For an entrepreneur, his or her business is important, it provides security and autonomy; if it fails it is likely to elicit a negative emotional response [Shepherd, 2009a,b]. In turn negative emotional responses interfere with an individual’s attention allocation in the processing of information. Thus, grief is a significant obstacle to learning from failure Shepherd [2003], Cope [2011]. The more sudden and rapid the failure process unfolds, the greater the grief experience

[Shepherd, 2009a,b]. Grief intensity is not only affected by the speed in which the firm unravelled but also the time since it occurred [Shepherd, 2009a,b]. In the immediate aftermath of failure strong emotions are commonplace whilst over time less emotional responses and interpretations of the experience emerge [Ucbasaran et al., 2010]. According to Shepherd [2009a,b, p. 81] grief dynamics are also “important in understanding why some people make sense of loss and recover from grief quickly while others cannot”. Three grief dynamics are proposed in relation to business failure: loss-oriented, restoration-oriented and transition oriented. Loss-oriented dynamics includes facing the loss and working through the grief process; it is mentally and physically draining on the entrepreneur. On the other hand restoration-oriented dynamics includes avoiding thinking about the loss and instead focusing on secondary sources of stress; this involves emotion suppression that requires mental effort and may adversely affect both the individual’s health and learning. Thirdly, transition-oriented dynamics are those that shift between the loss and restoration-oriented dynamics; this allows the individual to get the learning benefits of each and speed up the recovery process [Shepherd, 2009a,b].

Anticipatory grief is another of Shepherd’s contributions to this stream of literature [Shepherd et al., 2009a,b]. Its premise is that once an individual mentally prepares for failure in advance of it occurring they may reduce the emotional costs of failure and recovery faster from the event [Shepherd, 2009a,b, Shepherd and Wolfe, 2014]. Grief can help entrepreneurs assimilate the failure experience failure and enable them to overcome negative psychological responses ideally before they manifest into physiological symptoms [Shepherd, 2009a,b]. When an individual takes time to confront loss, recovery from that loss is more likely; in particular anticipatory grief may allow entrepreneurs to gradually distance themselves from the firm before failure actually occurs Table 4.3.

Another research strand deemed essential to both learning from failure and coping with the emotional repercussions of failure is the sensemaking perspective. There is variation in the extent to which entrepreneurs’ experience certain emotions following a failure

Table 4.3: Grief and business failure.

Author(s)	Key findings
Shepherd [2003]	There may be an emotional relationship between entrepreneurs and their businesses. The entrepreneurs' motives often transcend profits and incorporates pride and independence. However many businesses fail and such failure can lead to grief. A dual process of grief recovery involving oscillating between a loss and a restoration orientation can speed up the process.
Shepherd [2009a,b]	More emotionally intelligent individuals are better able to harness their grief to facilitate information processing about their loss and assist others to do the same. Groups (in this case families) recover from grief through emotional capability (ability to recognize and regulate emotions and anticipate, differentiate and understand the emotions of its members). Entrepreneurs that experience failure may be able to better regulate their emotions and recover from grief at a faster rate.
Shepherd et al. [2009a]	When a project fails grief can be managed through regulating negative emotions or normalizing them. Coping self-efficacy is key for regulating negative emotions generated by grief. If there is an absence of high levels of coping self-efficacy then a normalization approach to grief management may be superior.
Jenkins et al. [2014]	The grief experiences of entrepreneurs that experience failure differ. When entrepreneurs interpret failure as involving loss of self-esteem, reduced independence and increased financial strain, they experience greater feeling of grief. However some entrepreneurs (in particular portfolio and hybrid entrepreneurs) still have additional employment roles to fulfill, which act as psychological compensation. Therefore these individuals experience less (or no) grief from the business failure.
Shepherd and Kuratko [2009]	When entrepreneurs are committed to a project or a business, its failure generates grief. Grief interferes with the learning process. Enhancing grief recovery facilitates the learning process and results in more emotionally intelligent individuals more effective at executing the grief recovery process. Self-compassion can also reduce learning obstructions.
Shepherd et al. [2009b]	The concept of 'anticipatory grief' is introduced as a means of understanding why owner-managers often delay business failure when it is financial costly to do so. Anticipatory grief reduces the grief experienced by the owner-manager which in turn reduces the emotional costs of failure. Thus the emotional recovery of the owner-manager may be enhanced by a decision to delay business failure, therefore the delay may help 'balance' the financial and emotional costs to optimize recovery.

experience. For example [Jenkins et al. \[2014\]](#) found that an individual's perception of the harm or loss resulting from the failure had a greater influence on feelings of grief than more tangible variables such as alternative employment options. Therefore entrepreneurial perception of the failure has an impact on how they respond and behave during the failure process. The sensemaking perspective has been applied to the failure context in order to shed light on the way entrepreneurs synthesise and assimilate the business failure experience. This is now examined in greater detail.

4.3.2 Sensemaking

Entrepreneurship research has been criticised for its lack of recognition of the social context within which it operates [[Rauch and Frese, 2000](#)]. Failure has repercussions for individuals, organizations and society; as such it is necessary to explore how entrepreneurs and communities make sense of it [[Cardon et al., 2011](#)]. The sensemaking perspective is a way for entrepreneurship scholars to address the critic of contextual myopia and provide greater insight into the process by which business failure is processed and overcome. It is well established within the strategy, change management, innovation process and grief literatures [[Gioia and Chittipeddi, 1991](#), [Shepherd, 2009a,b](#)] however only recently has it been co-opted by entrepreneurship researchers as a means of understanding business failure [[Shepherd et al., 2011](#), [Byrne and Shepherd, 2015](#), [Cardon et al., 2011](#), [Wolfe and Shepherd, 2015](#), [Heinze, 2013](#)]. [Wolfe and Shepherd \[2015, p. 900\]](#) describe the interest on sensemaking in the organizational context in recent years as “a considerable theoretical movement”. Sensemaking is a social activity; people create meaning about events and situations through their interactions with others rather than in isolation [[Weick, 1979](#)]. Social interaction is important in understanding why some people are able to make sense of loss while others are not [[Shepherd, 2009a,b](#)]. Sensemaking is an iterative process whereby entrepreneurs assign meaning to occurrences in conjunction with action [[Gioia and Chittipeddi, 1991](#), [Shepherd, 2009a,b](#)]. It is about the “placement of items into frameworks, comprehending,

redressing surprise, constructing meaning, [and] interacting in pursuit of mutual understanding” [Weick, 1995, p. 6].

Three key aspects comprise the sensemaking process — scanning, interpretation and learning [Thomas et al., 1993]. When entrepreneurs experience business failure they tend to look for causal explanations to account for the demise, such as — ‘What happened?’ and ‘Why?’ these scanning questions signal the beginning of the sense-making process. The interpretation phase involves attaining greater understanding of the situation through retrospectively connecting events to potential causes and attributing those causes. The way in which circumstances are interpreted or labeled influences action in a particular direction thus interpretation of ambiguous information is regarded as critical [Shepherd et al., 2011]. Finally the learning phase is contingent on the entrepreneurs’ reactions to the failure, it is the culmination of the sensemaking process which involves continuously evolving plausible retrospective accounts of past events that inform current action [Weick et al., 2005, Shepherd et al., 2011]. Sensemaking is of particular importance for entrepreneurs operating in complex, dynamic environments as they are often presented with ambiguous and challenging scenarios that they must interpret [Thomas et al., 1993, Shepherd et al., 2011], failure being one such scenario. According to Shepherd et al. [2011, p. 1232] “an assumption of sensemaking is that constraints (such as those that caused a project to fail) are self-imposed and that an individual’s environment is not predetermined nor impervious to individual influence”. Essentially the environment is enacted, further underlining the importance of an individual’s interpretation and understanding of events as they inform the entrepreneur’s response. Sensemaking in turbulent conditions is dominated by two core themes: shared meanings and emotion (see Maitlis and Sonenshein, 2010 for a full discussion). The shared meanings facet of sensemaking is important as failure rarely happens in a vacuum, it often effects others beyond those immediately involved. Shared meaning influences how individuals, teams, firms, and cultures inform each other’s perspectives through his or her actions and reactions to the failure process. Emotion is important as the entrepreneurial

Table 4.4: Sensemaking and business failure.

Author(s)	Key findings
Maitlis and Sonenshein [2010]	Sensemaking in turbulent contexts, such as change and crises highlights the importance, yet elusiveness, of shared meanings. Furthermore emotions play a key role in the sensemaking process in such contexts. Positive emotions such as hope, relief, and joy can also be found in periods of crises and change.
Byrne and Shepherd [2015]	Found evidence that negative emotions motivated sensemaking efforts. Failure accounts that reflected little negative emotional reaction to business failure demonstrated little sensemaking about the experience. Negative and positive emotions together facilitate sensemaking, negative emotions motivate whilst positive emotions inform, sensemaking efforts.
Cardon et al. [2011]	Focused on cultural sensemaking about failure and explored the propensity to blame misfortunes versus mistakes. Whilst failures were blamed fairly evenly on mistakes and misfortunes, regional differences were found. Findings showed that cities with the highest number of failure accounts, blamed failures more on mistakes of entrepreneurs, whilst cities with fewer failure accounts predominantly blamed failure on misfortunes.
Wolfe and Shepherd [2015]	Narrative communication is used to assess sensemaking in organisations that have experienced project failure. Findings provide preliminary evidence of how emotional content within narratives can change in an attempt to make sense of prior experiences. Project failure rates increase negative emotional content within narratives. Furthermore narratives' positive emotional content is associated with reduced negative emotional content. Finally, positive performance events moderated the relationship between positive and negative emotional content, enhancing the effects of this relationship.
Heinze [2013]	Sensemaking in the aftermath of failure is a complex, multilayered process. Grief and suffering are important to the sensemaking process. Entrepreneurs' perceptions are influenced by the extent to which other individuals are affected by failure. Entrepreneurs felt a need to look for positive outcomes from their failure experience.

failure experience can be a traumatic event, generating negative emotions which can interfere with one's learning process [[Shepherd, 2003](#)]. Table 4.4 details a selection of the recent publications that explored the sensemaking process in the aftermath of a business/project failure event.

4.3.3 Fear

Fear is an emotional response induced by a perceived threat. Fear of failure is one of the most common fears experienced by entrepreneurs [Bosma et al., 2008] and it has a profound impact on entrepreneurial action [Morgan and Sisak, 2016, Mitchell and Shepherd, 2011]. However, despite the increasing focus on affect in response to failure, research on fear as an emotion preceding and potentially inhibiting action is sparse [Cacciotti and Hayton, 2015]. Current and growing interest in both the Behavioral Inhibition/Behavioral Approach System (BIS/BAS) and the Dark Triad [Hmieleski and Lerner, forthcoming, Haynes et al., 2015a,b, Mathieu and St-Jean, 2013, Ronningstam and Baskin-Sommers, 2013] questions individuals' ability to experience fear (e.g. psychopathy/BAS) and offers a discursive context for fear (and fear of failure) to be explored in greater detail within the entrepreneurship literature. The Dark Triad encompasses Machiavellianism, narcissism and psychopathy, "an important cluster of antagonistic personalities in psychology" [Jones and Figueredo, 2013, p. 521], tentatively linked to entrepreneurial entry [Hmieleski and Lerner, forthcoming], intention [Kramer et al., 2011] and behavior [Rauch and Hatak, 2015]. Situations that evoke such fear elicit different responses — some may respond aggressively to the threat, others avoid facing the situation as a means of protecting oneself, whilst more still become paralyzed by the situation, known as the fight-flight-freeze reaction [Gray and McNaughton, 2000]. Despite fear being considered a negative emotion, it has also long been recognized, as a driving force that effectively motivates human beings [Mowrer, 1939]. However within the entrepreneurship literature fear of failure has traditionally been dismissed as an entirely negative aspect of one's character however this perspective is changing as it may be an impairment to be conquered or a positive condition to be embraced depending on the context [Morgan and Sisak, 2016, Mitchell and Shepherd, 2011, Cacciotti and Hayton, 2015]. In this section recent literature on the concept is explored and the origins of its negative framing are examined.

Fear of failure is generally described as "generalized desire to avoid failure" [Elliot and Church, 1997, p. 220]. Three dimensions encompass

this desire, fears of — devaluing one’s self-estimate, upsetting important others and having an uncertain future [Conroy, 2001]. These dimensions have a varying effect on entrepreneurial action, essentially “not all fear of failure is created equal” [Mitchell and Shepherd, 2011, p. 196]. Certain situations combine with fear dimensions and hamper the likelihood of entrepreneurial action, such as the interaction between specific human capital and fear of devaluing self. However, a differing combination may in fact propel entrepreneurial action, such as entrepreneurial self-efficacy and the fear of upsetting important others [Mitchell and Shepherd, 2011]. The importance of the contextual landscape when examining fear of failure is echoed in more recent articles — Morgan and Sisak [2016, p. 13] maintain that the impact fear of failure has on success depends greatly on context, in particular the “self-created context of individual aspirations”. More generally Wennberg et al. [2013] argue that the broader cultural contexts individuals are embedded in are important to consider.

Morgan and Sisak [2016] theorize that fear of failure can be motivating particularly when the individual is already in entrepreneurship and their success standards are sufficiently high. Alternatively they warn that those with lower aspirations may see their fear of failure corroding motivation. Duality of the concept was also touched on by Cacciotti and Hayton [2015] who posit that for individuals high in fear of failure two outcomes exist — the individual chooses to engage in safe tasks where the likelihood of failure is reduced or he or she engages in difficult tasks where failure can be attributed to external circumstances. Meanwhile Mitchell and Shepherd [2011] contend that entrepreneurs facing higher risk are more likely to have a higher fear of failure. In a similar vein Morgan and Sisak [2016] hypothesize that those succeeding in entrepreneurship may suffer more from fear of failure than the general entrepreneur population with higher aspirations likely to produce more success. However they also postulate that fear of failure deters entrepreneurship and those entering entrepreneurship are likely to suffer less from fear of failure. These findings appear somewhat oxymoronic, yet they are important as they dispute the generally accepted principle that fear of failure is an impediment to entrepreneurship.

Thus these nuanced findings highlight that the previously accepted relationship between fear of failure and withdrawal/avoidance is not entirely accurate. Myopia in the entrepreneurship literature regarding the potential positive aspects of fear of failure has gone largely uncontested, yet caution is urged before wholly dismissing it as an entirely negative construct [Cacciotti and Hayton, 2015]. A propagator of the viewpoint that fear of failure has a negative impact on entrepreneurship may derive from the prominence of GEM data [see Cacciotti and Hayton, 2015] within studies exploring the concept [Minniti and Nardone, 2007, Wennberg et al., 2013]. The phrasing of the response choice within the panel study (“fear of failure would prevent me from starting a business”) has been criticized the single-item measure as “misleading” and suggestive of a “negative relationship between the perception of fear and the decision to start” [Cacciotti and Hayton, 2015, p. 170]. It focuses on adverse effects rather than potential benefits and as a result the majority of studies in the area focus on one’s decision whether or not to start a business [Cacciotti and Hayton, 2015].

A further potential discrepancy with research on the construct to date stems from the lack of distinction between fear of failure as a trait/disposition versus a state. Whilst a trait approach indicates a stable disposition towards fear of failure, independent of specific characteristics, a state approach considers behavior as the result of psychological processes induced by situational characteristics [Cacciotti and Hayton, 2015]. Cacciotti and Hayton [2015] suggest that viewing fear of failure as a state rather than a trait is more conducive to explaining the dualistic nature of fear of failure, wherein some dimensions of the concept induce entrepreneurial action whilst others deter it [Mitchell and Shepherd, 2011]. A definition of the concept gleaned from Conroy [2001] within the social psychology literature is useful for conceptualizing fear of failure as a state, where fear of failure is the appraisal of threats during situations that involve the possibility of failing. For a more expansive analysis of the concept of fear of failure within the entrepreneurship literature see Cacciotti and Hayton’s [2015] comprehensive review on the topic. Table 4.5 outlines a selection of prominent contemporary papers on fear.

Table 4.5: Fear and business failure.

Author(s)	Key findings
Morgan and Sisak [2016]	The role fear of failure plays in the decision to become an entrepreneur and subsequent investment decisions are modeled. The impact fear of failure has on outcomes depends on context. Results suggest that fear of failure is negatively associated with entrepreneurship entry. Yet if the entrepreneur is already engaged in entrepreneurship then fear of failure is motivating for highly ambitious individuals and demotivating for those less ambitious. Thus the interaction between fear of failure and entrepreneurial aspirations is important to understand in order to determine its effect on behavior.
Wennberg et al. [2013]	Similarly this paper also stresses the importance of context. The cultural traits of institutional collectivism and uncertainty avoidance in a country moderate the impact fear of failure has on entrepreneurial entry. In societies with high uncertainty avoidance the negative effect of fear of failure on entry is more pronounced. Furthermore the level of performance orientation slightly moderates how one's fear of failure impacts his or her likelihood of entrepreneurial entry. In societies with high performance orientation the negative effect of fear of failure on entry is more pronounced.
Mitchell and Shepherd [2010]	Fear of failure impacts entrepreneurial decision makers' images of opportunity. Those with a higher fear of failure place greater importance on the potential value when deciding on entrepreneurial action than those with lower fear of failure. Furthermore those with higher fear of failure place less importance on the number of potential opportunities available when deciding on likelihood of action than those with lower fear of failure. Essentially fear of failure seems to result in an increased emphasis on the internally-focused desirability components of opportunities, and a decreased emphasis on certain externally-focused environmental aspects. Thus entrepreneurs with a higher fear of failure may be less likely to distinguish between the benefits of alternative opportunities in the environment. Therefore this may provide the key as to why some entrepreneurs explore many opportunities while others only a few — the answer may lie in variations in fear of failure as an image of vulnerability.
Arenius and Minniti [2005]	Fear of failure is significantly negatively correlated with nascent entrepreneur. Results from the GEM data used in this study show that those who fear of failure are only two thirds as likely to become entrepreneurs as those who do not fear it.

(Continued)

Table 4.5: (*Continued*)

Author(s)	Key findings
Mitchell and Shepherd [2011]	Fear of failure moderates the effects of human capital, general self-efficacy and entrepreneurial self-efficacy on likelihood of entrepreneurial action (with these effects differing based on fear of failure dimensions). 127 decision makers participated in the study from 240 randomly selected companies from a list of 459. Through exploration of the three dimensions of failure it is found that some sources of fear (such as the interaction between specific human capital and fear of devaluing self and the interaction for general self-efficacy and fear of having an uncertain future) have an inhibitory impact of entrepreneurial action whilst other dimensions of fear of failure interact and propel entrepreneurial action (the interaction between general self-efficacy and the fear of devaluing one's self, the interaction between specific human capital and the fear of upsetting important others, and the interaction between entrepreneurial self-efficacy and the fear of upsetting important others).
Wyrwich et al. [2016]	Observing entrepreneurs reduces fear of failure in others, particularly in environments where approval of entrepreneurs is high. The effect is significantly weaker in low-approval environments. As such the paper argues that fear of failure is formed through a specific process that is influenced by social interactions with entrepreneurs in the local environment. Using German GEM data for 5 years (2003–2006; 2008) the study integrated German history and the social and institutional contexts. Ultimately, the sample comprised of 6,457 West Germans and 1,598 East Germans.

For more papers on this topic see Cacciotti and Hayton's [\[2015\]](#) review.

4.4 The impact of failure

Business failure does not happen in a vacuum; the inter-related tapestry of commerce means that the effects of failure may spillover from one's professional life and impact one's personal life. It can "have a serious and detrimental impact on numerous aspects of an entrepreneur's life" [\[Cope, 2011, p. 610\]](#). As previously discussed, exit and failure can result in the positive consequence of tailored learning for the entrepreneur; however, disengaging from the firm may induce negative effects particularly for entrepreneurs with higher psychological ownership [\[Pierce et al., 2001; Wennberg and DeTienne, 2014\]](#). The

way in which failure is interpreted in terms of damage to one's self-esteem and financial loss has ramifications on how an entrepreneur feels following the failure experience [Jenkins et al., 2014]. One of the ways entrepreneurs may continue to encounter difficulties after firm failure is through stigmatization. This will be examined further in this section of the monograph.

4.4.1 Stigma

Societal views on failure vary according to cultural and geographical settings [Damaraju et al., 2010, Landier, 2005]. Even within U.S. borders tolerance of business failure ranges from general tolerance “in Silicon Valley to the abhorrence of it on more conservative Wall Street” [Cardon et al., 2011, p. 80]. The perceptions that exist towards failure in a culture may have profound effects on the allocation of resources. If failure is deemed intolerable the associated stigma of business collapse may spill over into personal and social stigmas, resulting in entrepreneurs being less inclined to pursue entrepreneurial ventures [Cardon et al., 2011]. Stigma is “a quality of social dishonor: a mark of degradation, loss of esteem, or loss of reputation” [Spicker, 1984, p. 159], it negatively impacts one's image [Goffman, 1963]. Stigmatization is emotionally difficult but beyond internal feelings it also has the potential to reduce the resources and compensation one can command subsequently [Wiesenfeld et al., 2008, Aldrich and Fiol, 1994, Sutton and Callahan, 1987]. For those that experience business failure, stigmatization is the resultant stain on one's image and character due to one's direct association with the firm's demise [Wiesenfeld et al., 2008, Achtenhagen, 2002].

According to Ucbasaran et al. [2010] the context in which failure occurs is important as it may influence how the entrepreneur responds to failure. The literature on stigma shows that context also influences how others in society respond to failure. If a society deems failure as wholly negative, observers may place all penalties for the failure on the entrepreneur [McGrath, 1999] reducing the incentive to engage in entrepreneurial efforts [Cardon et al., 2011]. Stigmatization is a social

process, whereby the person with the offending attribute (such as association with a failed firm) is denigrated [Wiesenfeld et al., 2008]. Therefore to better understand if business failure leads to stigmatization of an entrepreneur, and the extent to which this may occur, one first needs to understand the cultural view of failure in the respective community [Cardon et al., 2011]. It is generally accepted that the lower the cultures' acceptance of failure the greater the potential of stigmatization one is subjected to following a failure experience. Furthermore business failure in individualist cultures may be more likely to be professionally forgiven [Petzinger, 1997] whilst in collectivistic cultures the social stigma can be devastating [McGrath, 1999, Cardon et al., 2011]. Yet studies in China (a collectivist culture) found failure to be well tolerated in some parts of the country [Wong, 2003]. Ultimately Cardon et al. [2011] confirm that cultural interpretations of failure are important as they impact the level of entrepreneurial behavior within a community. A study by Simmons et al. [2014] found that in high-stigma countries, entrepreneurs are less likely to re-enter self-employment following a failure experience. Additionally if the societal response to failure is stigmatization learning and spillover effects are diminished [McGrath, 1999]. Conversely countries with lower stigma attached to failure may make recovery easier [Simmons et al., 2014, Jenkins et al., 2014]. It may be "that the psychological costs of business failure are lower and reduced more quickly in social contexts that are more forgiving of failure" [Ucbasaran et al., 2013, p. 194]. If failure is normalized the emotional aversion to it is removed, allowing entrepreneurs to move on faster as negative emotions are neutralized [Shepherd et al., 2009b]. A culture where failure is accepted or at the least not stigmatized removes a significant barrier to learning. A system where it is better not to fail rather than succeed is blamed for a lack of innovation [Tezuka, 1997].

Society also recognizes that the influence of leaders on organizational outcomes is immense [Rowe, 2001, Yukl, 2008, Hambrick and Mason, 1984]. Thus, leaders are a prominent target when forming assignments regarding organizational outcomes whether said assignments are valid or not [Wiesenfeld et al., 2008]. Leaders of organizations' are seen as the formal decision-making authority within a firm, they are also the ones with the highest concentration of power and have

access to large quantities of information, this allows them to make informed choices and guide the organization appropriately [Finkelstein, 1992; Argenti, 1976]. As such stigmatization is most profound for those deemed to be in charge, the higher one's position of power within an organization, the greatest downward settling-up one's experiences [Wiesenfeld et al., 2008]. Shunning is an effect of stigmatization that an entrepreneur may experience following a failure experience, it occurs when important others visibly withdraw and reject interaction with the stigmatized individual. A shunning experience is both professionally and economically damaging for the entrepreneur and can lead to a negative spiral as an entrepreneur that is shunned will also find it increasingly difficult to retain and form other relationships in the same social sphere, thus further denigrating their identity [Wiesenfeld et al., 2008]. Social capital is one factor that can help mitigate the effects of failure stigmatization, people with "high levels of social capital, prestige, and status may be buffered from personal stigma because their social capital alters the ways that observers react to them" [Wiesenfeld et al., 2008, p. 240]. Bolstered by a strong supportive network entrepreneurs bounce back faster from firm collapse as society is reluctant to label favored individuals with negative characteristics such as ineptness and self-servitude [Wiesenfeld et al., 2008]. Thus, entrepreneurs with a strong and diverse network are buffered from the ill effects of firm failure as their social capital is likely to present them with a favorable forum through which they can defend themselves and reinstate, to some degree, their social standing, this in turn allows the entrepreneurs to mitigate the effects of stigmatization [Wiesenfeld et al., 2008, Adler and Kwon, 2002].

Stigmatization has traditionally been viewed as a potential consequence of failure [Cardon et al., 2011]. However, the process by which stigmatization occurs has been called into question by Singh et al. [2015]; they found that stigmatization surfaces before failure occurs, when the entrepreneur is anticipating failure. This anticipation leads the entrepreneur to engage in behavior destructive to the firm, in an effort to evade further stigma. Hence stigma actually contributes to business failure and in turn increases stigmatization of entrepreneurs

that have experienced failure [Singh et al., 2015]. Table 4.6 presents some of the key papers exploring stigma in the management and entrepreneurship literature.

4.5 Literature related to recovery from failure

Actively moving on from failure is an essential part of the recovery process [Cope, 2011]. A study of European entrepreneurs estimates that approximately 15% of entrepreneurs have prior entrepreneurial experience [Hyytinen and Ilmakunnas, 2007]. Although not all entrepreneurs re-entering entrepreneurship have experienced failure it remains generally accepted in the literature that “all entrepreneurs irrespective of whether they succeeded or failed in their first venture, are more likely to start another venture than novice entrepreneurs” [Nielsen and Sarasvathy, 2011, p. 7]. Thus recovery is an important stage for entrepreneurs to proceed through in order to emerge from the failure process into a position where re-entry is a viable and real option.

Studies show that industry experience is an important predictor of firm success for new venture founders [Agarwal et al., 2004, Chatterji, 2009, Phillips, 2002, Klepper and Sleeper, 2005]. Although many of these studies primarily focus on prior industry experience attained through previous employment it does not negate or diminish the potential for the same effect occurring when we consider prior entrepreneurial experience [Eggers and Song, 2015]. A recent study by Toft-Kehler et al. [2014] examined geographic and temporal domain similarities in subsequent ventures, in addition to industry. The research shows that prior experience can negatively affect performance among novice entrepreneurs, whilst expert entrepreneurs experience positive performance returns; high context similarity (geographic, industry or temporal) serves to weaken the negative relationship between experience and performance for novice entrepreneurs, and it strengthens the positive relationship between experience and performance for those with moderate to high levels of experience (Toft-Kehler et al., 2014). In addition to prior experience numerous other factors influence recovery, understandably learning is an essential component.

Table 4.6: Stigma and business failure.

Author(s)	Key findings
Simmons et al. [2014]	Failed entrepreneurs employ tactics to manage stigma and respond to lost legitimacy. Cross-national differences in stigma attitudes and regulatory stigma symbols influence failed entrepreneurs' decisions to start-up again, in addition to affecting modes of re-entry.
Singh et al. [2015]	Stigma is explored at an individual level through narratives. Stigmatization is a process that unfolds over time. The process begins at the anticipating failure stage and consequently contributes to venture demise as entrepreneurs engage in harmful behavior as a means to avoid stigma. Stigmatization triggers deep personal insights, which have the potential to transform entrepreneurs' view of failure from a very negative, to a positive, life experience.
Wiesenfeld et al. [2008]	A model is developed to explain how corporate failure results in the devaluation of individuals associated with the failed firm. Stigmatization is a social process whereby an individual with an offending attribute is denigrated. Organisational actors can avoid or acquire negative reputations through their behavior before, during, and after the failure process.
Sutton and Callahan [1987]	When an organisation files for Chapter 11 (bankruptcy in the United States) the stigma of such an action elicits five negative reactions from key organisational audiences: disengagement, reduction in the quality of participation, bargaining for more favorable exchange relationships, denigration via rumor and denigration via confrontation. Organisational leaders engage five methods to counter this stigma: concealing, defining, denying responsibility, accepting responsibility, and withdrawing.
Landier [2005]	Landier creates an economic model of entrepreneurship based on two regimes — conservative and experimental. In a conservative culture entrepreneurs will pursue suboptimal, but safe projects — thus stigma affects the type of project entrepreneurs undertake. The stigma of failure also affects entrepreneurs' continuation and abandonment decisions. Conservatism makes abandonment less attractive to entrepreneurs, whilst in an experimental equilibrium entrepreneurs fail more often and the higher levels of experimentation lead to the creation of more high prospect firms.
Ferrer and Dew [2010]	The economic models of six cases describing different entrepreneurial scenarios are introduced as a means of exploring corporate entrepreneurship. The study builds on Landier's [2005] model and shows that the extent to which a culture stigmatizes failure can be modeled as a relatively simple information asymmetry problem. In order to be innovative, companies need a forgiving culture that encourages experimentation and accepts success and failure as part of its journey towards superior operational performance.

(Continued)

Table 4.6: (*Continued*)

Author(s)	Key findings
Efrat [2006]	Reform of Japan's legislation has reduced the entrenched stigma of bankruptcy. Profound manifestations of bankruptcy stigmatization led individuals to petition for name changes in some cases and in others to have the bankruptcy petitions' dismissed completed. The legislative changes have lessened the legal ramifications of bankruptcy and the paper suggests that such action also reduces the stigmatization of failure in society generally.
Kirkwood [2007]	'Tall poppy syndrome' the practice of knocking high achievers is regarded as being engrained in New Zealand's culture and discourages restart following a business failure experience. However the extent of stigmatization, and the potential of reputational reparation, is influenced by whether the failure is due to external circumstances or a result of the entrepreneur's actions.
Cope et al. [2004]	Venture capitalists are tolerant of failure. It is not an automatic 'black mark', they are sympathetic to the pitfalls of venture start-up. Some failures may even be categorized as relatively successful such as getting an exit in times of market turbulence. Essentially the decision to invest in an entrepreneur is not negatively impacted by prior failure experience.

Success and failure bring different learning outcomes, learning from failure is more difficult as it requires the entrepreneurs to acknowledge and accept their role in the firms' demise. Learning from failure and recovering from failure are two sides of the same coin [[Cope, 2011](#), [Jenkins, 2012](#)]. When the failure is properly attributed and the individual engages in the sensemaking experience in an emotionally honest way, the learning process is efficient and effective. However balance is critical, prolonged retrospective analysis and self-criticism is unproductive, the entrepreneur must actively move on from the failure for recovery to complete [[Cope, 2011](#)]. Individuals with an optimistic outlook recover quickly from setbacks as they transform problems into opportunities [[Ucbasaran et al., 2013](#), [Seligman, 2006](#)].

The concept of recovery has elicited various opinions. [Ucbasaran et al. \[2013\]](#) argue that the concept is restrictive. Recovery, they argue, implies overcoming the financial costs of business failure without recognizing or considering the long-term financial benefits gained through

pursuit of competing entrepreneurial ventures. Yet Cope's [2011] vision is more holistic, recovery is not simply a process confined to the entrepreneur. The rehabilitation of the entrepreneur is "a function of observing the recovery of significant others" [Cope, 2011, p. 613]. Recovery in this case is part of a social and cultural process that enables the entrepreneurs to make sense of their situation based on the experiences of others. From this perspective the way society approaches failure is important. Numerous successful entrepreneurs once endured failure, this information can be heralded as a sign of triumph over adversity or it may remain a quiet vestige of the entrepreneurs' earlier careers. For example, U.S. entrepreneurs Henry Ford, Bill Gates, R.H. Macy, F.W. Woolworth and Walt Disney have all experienced failure prior to their extremely successful entrepreneurial careers; this is openly discussed in the media. Conversely, examples of European entrepreneurs are notably absent [Frankish et al., 2013] as well as their Asian counterparts. This is considered part of the culture of stigma that traditionally permeates these continents [Frankish et al., 2013]. This perceived intolerance of failure in Europe and Asia has been attributed to stringent bankruptcy legislation and restrictions to restarting [Efrat, 2006, Singh et al., 2015, Landier, 2005]. Thus whilst recovery from failure lies, for a large part with the entrepreneur — their cognitive, affective and behavioral responses to the phenomena, it also lies in part to the social, cultural and legislative environments within which the failure occurs. Therefore recovery is not guaranteed and following a failure experience "many individuals move toward recovery, while others find themselves in a paralysis or downward spiral" [Boss and Sims Jr, 2008, p. 136]. In Table 4.7 additional research not presented in previous sections but relevant to recovery from business failure are outlined.

4.5.1 Costs of business failure

When a firm fails there are associated tangible and intangible costs for the entrepreneur to bear, economic, social, psychological and physiological [Singh et al., 2007, Latack et al., 1995]. Yet according to McGrath [1999] once the cost of failing is bounded, high failure rates can be favourable, as they indicate economic vibrancy. Whilst McGrath

Table 4.7: Recovery and business failure.

Author(s)	Key findings
Boss and Sims Jr [2008]	The recovery process following business failure can be enhanced through emotional regulation and self-leadership. Emotional regulation and self-leadership impact an individual's behavioral responses and have the potential to mitigate damage caused by failure, to an individual's self-efficacy. This in turn has a consequential effect on recovery from a failure experience.
Ucbasaran et al. [2003]	The extent to which entrepreneurs translate prior business experience into higher subsequent entrepreneurial performance is dependent on cognition and learning. Two categories of cognition are highlighted: heuristic-based (automatic) thinking and systematic (rational) thinking. Entrepreneurial cognition is often heuristics-based thinking, it can facilitate the identification and exploitation of entrepreneurial opportunities. However it may lead to errors and biases in decision-making (e.g. over-confidence). Systematic thinking can overcome some of these biases, however it is slow and requires effort. An entrepreneur's ability to reflect and evaluate their experiences is critical in determining their future performance.
Cope [2011]	This study employs inductive analysis to examine recovery and re-emergence from failure. It explores the learning processes that enable healing. Three interconnected phases are proposed. First, the initial hiatus, whereby the entrepreneur psychologically removes himself or herself from the failure in order to heal. Secondly, critical reflection, the stage at which the entrepreneur focuses on making sense of the failure. Thirdly, reflective action, where the entrepreneur attempts to move on from the experience and explore other opportunities. The final recovery stage is referred to as "higher order" restoration as it involves the entrepreneur re-engaging in the entrepreneurial process and is associated with repeat entrepreneurship. The paper also provides a detailed account of papers specifically exploring recovery and learning from failure.
Eggers and Song [2015]	This paper explores the changes entrepreneurs implement in their subsequent ventures due to their experience of failure with a previous venture. Specifically it deals with the idea that a failure experience will lead serial entrepreneurs to make changes to their future business. Attribution is used to frame the study. Entrepreneurs whose previous venture has failed are more likely to change industries in subsequent ventures. However changing industry is detrimental to subsequent venture performance as entrepreneurs are subject to penalties from switching industries. Furthermore prior failure has no significant relationship with changes in business strategy, planning or the management decision-making process. Thus changes made by entrepreneurs in subsequent ventures following a failure experience are more likely to be changes that relate to the external environment (industry) rather than changes of factors within the entrepreneurs control (strategy).

Table 4.8: Costs of business failure.

Author(s)	Key findings
Arora and Nandkumar [2011]	This paper analyses how entrepreneurial opportunity cost, conditions performance. Firms with high opportunity cost (i.e. those with numerous viable alternatives to the focal venture) are more impatient for success and willing to accept greater risks. They put less value on surviving, care less about failure and invest more aggressively. They are both more likely to fail and more likely to succeed. If failure occurs it may result in considerable financial loss but the availability of alternatives allows them to absorb the costs more readily. Conversely those with fewer outside alternatives will adopt less aggressive strategies and linger for longer.
Van Auken et al. [2009].	Bankruptcy legislation can impact entrepreneurial behavior. Laws can provide protection for entrepreneurs against total loss of personal assets (e.g. the entrepreneur's residence) should bankruptcy occur. Better understanding is needed for the impact bankruptcy policy has on start-up decisions.
Dew et al. [2009]	This paper explores how entrepreneurs seek to reduce the financial costs of failure through use of the affordable loss principle. Affordable loss decision heuristic involves decision-makers calculating what they are willing to lose in order to follow a particular course of action. It differs from the expected return approach (NPV) to assessing investment decisions. When decisions are taken based on expected returns entrepreneurs overinvest or underinvest, with performance depending heavily on prediction accuracy. However with affordable loss reasoning entrepreneurs' investments can grow as a function of survival through incremental investments based on affordable loss reasoning. Should failure occur, entrepreneurs using affordable loss are almost always likely to lose less than prediction-oriented entrepreneurs. Thus, affordable loss reduces the cost of failure, irrespective of the probability of failure.
McGrath [1999]	Real options theory is employed to explore reasoning concerning entrepreneurial failure. Real options emphasises managing uncertainty through pursuit of high-variance outcomes and only investing in favourable conditions. Such an approach allows for an increase in profit potential and management of costs. Such reasoning enables failing entrepreneurs to choose the best rate at which to exit, by exploring the generative capacity of alternative options.
Singh et al. [2007]	This paper details four key aspects of an entrepreneur's life affected by entrepreneurial failure — economic, social, psychological and physiological. The paper adds to the literature through the identification of the physiological costs of failure. Panic attacks, weight loss, anxiety and exhaustion are all detailed as physiological effects of failure.

[1999] puts forth a compelling argument for containing economic costs through consistent awareness of a firm's opportunity costs of continuation, the intangible costs of failure can be more complex to discern. Theories of commitment have been employed to argue that entrepreneurs may attempt to stave off the effects of failure by escalating commitment to a failing course of action [Shepherd et al., 2009b]. Ironically such action only serves to increase the costs of failure when it eventually plays out. One interesting benefit of such behavior (previously explored in this monograph in Section 4.3.1) stems from the opportunity delaying the failure gives to the entrepreneur to acclimatise to the oncoming failure. The entrepreneur can then make the necessary mental adjustments to positively cope with its onset. However Shepherd et al. [2009b] advise balance in relation to delaying the inevitable as a business in a permanent state of failing result is a strain on the economy [McGrath, 1999] whilst simultaneously eroding the entrepreneur's professional profile. Furthermore the longer the failing venture is artificially prolonged the greater the opportunity costs.

The emotional cost of failure is closely linked to its social costs, failure may lead to a severance of ties between the entrepreneur and the community of collaborators the firm's existence allowed access to [Cope, 2011]. If an individual attaches his or her self worth to a venture that subsequently fails, the emotional costs of that failure may be further aggravated through the loss of self esteem [Crocker and Wolfe, 2001]. In such a situation the failure would be viewed as a personal as well as a professional failure [Jenkins et al., 2014]. Once again this affect in response to business failure is guided not only by the entrepreneur's personal feelings but also by society's attitude to failure. An individualistic culture, such as the United States where failure is "professionally forgiven", will have less negative repercussions than collectivist Japan. The strain business failure can put on individuals' personal lives is also touched on in the literature. Marriage breakdowns [Singh et al., 2007] and an erosion of close relationships [Cope, 2011] due to feelings of shame, guilt and impotence is further evidence of the spill-over effect failure can have on the personal lives of entrepreneurs (see Table 4.8 for further research on the cost of business failure).

5

Methodological Approaches, Biases and Perspectives

One of the acknowledged challenges of conducting empirical research on business failure is securing access to appropriate data for analysis and ensuring data validity. In this section an overview of the methodological approaches commonly used in research and analysis of business failure is provided. As outlined and discussed in this monograph business failure has been investigated through a range of lenses, resulting in a dynamic and vibrant array of studies and methodological approaches. However, such varied strands of ideas and methodologies can, in the words of Pfeffer [1993], lead to “a weed-patch, rather than a well tended garden”. The methodological challenges are further confounded by the lack of a universally accepted definition of business failure.

Business failure research began in earnest following the 1930s economic depression. The growing prevalence of commercial banks was the source of useful financial data that became the foundation of initial studies. Given the economic hardship imposed by the great depression, many studies were concerned with predicting failure in advance through analysis of organisations’ accounts. This gave rise to financial analysis of firm accounts and the emergence of financial ratios. The identification of ratios provided a basis for distinction between financially

healthy and potentially unhealthy firms through simple accounting calculations. Over time the growing amount of available data resulted in simple financial ratios evolving into complex statistical models. Since the 1980s the advancement of information technology has resulted in the development of technology-driven models, yet these new models still rely on a statistical heritage [Aziz and Dar, 2006]. Contemporary prediction models incorporate artificial intelligence and combine human knowledge with generated machine knowledge. The newest of these models is artificial intelligence expert systems (AIES) reaching bankruptcy prediction accuracy rates of 88%, yet this model and its predecessors are not without criticism, as discussed in Section 3.1.1 [Aziz and Dar, 2006].

Whilst the finance and accounting fields were focusing on improving their models' predictable abilities through information technology in the 1980s, management theorists began developing organisational decline models [Adler and Chaston, 2002]. These models differ greatly from prediction models; they are not concerned with predicting failure before its onset but with charting the stages of failure as it progresses through the business. Also unlike the large datasets employed for prediction models, organisational decline models employed smaller datasets (see Table 3.2); some emerged from a single case-study [Sheppard and Chowdhury, 2005] whilst others adopt a matched-pairs technique totalling multiples of ten [Moulton et al., 1996]. The primary objective of these studies is to understand the process nature of failure through the perspective of the management team. The data used to develop the decline models was often gleaned from public sources; as such the firms that were the focus of these studies were often large organisations [see Hambrick and D'Aveni, 1988, Sheppard and Chowdhury, 2005, Fridenson, 2004].

The deterministic perspective evolved from economic theory. Incorporating organisational ecology and industrial organisation viewpoints, large datasets (in some cases whole industries: Barnett and Amburgey, 1990 — the Pennsylvania telephone industry; Tushman and Anderson, 1986 — US minicomputer, cement and airline industries; Sutton, 1991 — US frozen food industry) are analysed. Emerging patterns

provide information about entry and exit rates. Yet this approach assumes exit, closure, discontinuance and disappearance are synonymous with failure whilst survival is considered a synonym for success [Khelil, 2016]. Such assumptions are unreasonable for numerous reasons (as discussed in Section 2.1), firms disappear due to owners retiring, selling their firm or changing to a different venture [Watson and Everett, 1996]. Discontinuance does not equate to failure given the many positive factors that lead to firm closure [Justo et al., 2015, Wennberg and DeTienne, 2014, Khelil, 2016, Walsh and Cunningham, 2015]. Furthermore, persistently underperforming firms are excluded from this definition even though they may consume more resources than they create [Khelil, 2016]. The voluntaristic perspective provides balance to the myopia of the deterministic approach.

The voluntaristic perspective argues that many firms are subject to the same environmental conditions yet some fail whilst others thrive. They argue that it is those making decisions within a firm holds more power than the external environment in which the decision is being made. This perspective is shaped by organisational psychology and organisational studies theorists and is comprised of many mid-range theories (as discussed in Section 3.3.2). Despite lacking an overarching theory the essential premise of the perspective is that failure occurs due to internal inadequacies in dealing with external threats. Management's perceptions of a situation is coloured by their feeling, experiences and motivations and these factors combine to dictate the way they respond to organisational crisis. This perspective highlights the centrality of management's intellectual, emotional and professional skill sets to the success and continuation of firms and gives space for softer, individual-level factors to be explored. Focusing on individual-level factors opened up the field to entrepreneurship academics and business failure research in the field has been growing for the past two decades. The global economic downturn in 2008 further ignited interest in business failure studies and it remains a popular field of study.

Business failure studies in the entrepreneurship literature cover a range of topics including — learning [Cope, 2011], grief [Jenkins et al., 2014], sensemaking [Byrne and Shepherd, 2015], fear [Morgan

and Sisak, 2016], stigma [Singh et al., 2015, Simmons et al., 2014], recovery [Ucbasaran et al., 2013] and costs [Singh et al., 2007]. The emotional and social aspects of failure have resulted in theories and concepts being introduced into the entrepreneurship literature from social psychology, providing insights into the human element of business failure. An interesting characteristic of failure research within the field of entrepreneurship is the popularity of qualitative research methods and case-study research [Cope, 2011, Byrne and Shepherd, 2015, Mantere et al., 2013]. The prevalence of qualitative research methods speaks to the novel and innovative concepts under investigation. There is a notable contrast between the approaches and methodologies engaged to explore the phenomenon of business failure within entrepreneurship, and the financially driven models that prevailed in the finance and accounting literature when the topic first came under academic scrutiny. As research continues, the complex and important nature of the phenomenon, to both business and society, requires pluralistic methodological approaches. However the first step to achieving this is to attain a concrete understanding of the core facets of business failure and its resultant impact on the entrepreneur and other stakeholders. As such we argue for a concentration of research activity focused on the individual and their failure experience (elaborated on in Section 6).

Table 5.1 highlights the business failure research trajectory in an overview format.

5.1 Merits of methodologies

The lack of an accepted definition of business failure has created a series of issues for research on the topic. The deficit not only clouds comparisons between studies but also results in data-driven definitions, whereby researchers choose the definition best suited for the data they have access to. The constraining nature of such an approach is troublesome in a field already noted for its dependence on large data sources which many research groups ‘milk’, leading to a high alpha error [Frese et al., 2012]. Furthermore, despite the dependence on these large datasets little work is done on building new databases

Table 5.1: Changes in research focus and methodologies.

Focus	Data Sources	Analysis
	<i>Bankruptcy Prediction Models</i>	
Studies in the fields of accounting, finance and information technology create models to predict bankruptcy one or more years before it occurs	Large datasets commonly obtained from public limited companies and other public sources. Highly Quantitative.	Ratio analysis, algorithms, neural networks and artificial intelligence expert systems create predictions using a combination of machine learning and human intelligence (see Table 3.2)
	<i>Organisational Decline Models</i>	
The field of general management develops process models to plot the course of business failure as a multi-stage, longitudinal occurrence. Focus mainly charts failure in large firms	Mid-sized datasets (e.g. 73 matched pairs — Moulton et al., 1996). Data based on large firm failures with accessible, public information. Both qualitative and quantitative.	A selection of process models is created with 3–5 stages which chart the pattern of failure as it proceeds through an organisation (see Table 3.3)
	<i>Deterministic Perspective</i>	
Guided primarily by economic theory this approach explores industry-level trends and their influence on start-up and exit rates	Large datasets are employed encompassing entire industries if possible. Highly quantitative.	Examining data for entire industries over a period of years/decades allows for patterns to emerge which present a perspective on entrance and exit rates
	<i>Voluntaristic Perspective</i>	
Influenced by organisational studies and organisational psychology firm-level factors are explored as a means of understanding the origins of firm failure	Small datasets are used concentrating primarily on the CEO or owner/manager to gain insight into internal firm activities. Both qualitative and quantitative.	The decisions and actions of senior management are explored in an effort to understand how failure unfolded inside firms
	<i>Failure from an Entrepreneurship Perspective</i>	
Failure in the entrepreneurship literature has focused on a range of cognitive, affective and behavioral aspects	Small, case-study research dominants as novel topics are explored. Larger datasets are also prevalent where more established concepts are investigated. Both qualitative and quantitative.	As the entrepreneur is the unit of analysis research provides insight into the softer aspects of business failure. The effects failure has both personally and professionally is explored. Also the impact of failure and scrutinised using cultural and legal lenses

and exploring new techniques to analyse existing datasets [Frese et al., 2012]. Quantitative approaches continue to have their merits within the entrepreneurship field. They remain pertinent to progressing the field and so secure is their place in the future of business failure research that they do not require further discussion in this monograph. However some “questions simply do not get asked, or cannot be asked, when undertaking quantitative studies” [Gartner and Birley, 2002, p. 388]. Thus, given the complex nature of the business failure process, qualitative research is still very much warranted. In recent years qualitative studies have been instrumental in advancing understanding, and providing new perspectives into various facets of the phenomena. Whether it is Cope’s [2011] insights on learning or the use of narratives to capture the complex impact the failure experience has on the individual [Byrne and Shepherd, 2015, Mantere et al., 2013], qualitative research remains meaningful. Such an approach may be particularly useful as studies on failure begin to move past firm-level analysis and start to focus on the individual at the heart of the failed business [Khelil, 2016]. To a certain extent the power of future quantitative studies rely on the foundations built by current qualitative studies.

Numerous academics have called for more experiments in entrepreneurship [Frese et al., 2012, Reay et al., 2009, Wieland et al., 2016]. A content analysis conducted by Aguinis and Lawal [2012, p. 496] of 175 empirical articles published in the *Journal of Business Venturing* between 2005 and 2010 found that “74.9% used non-experimental designs, 10.3% were based on qualitative research, 8.6% used longitudinal designs, 4.6% used quasi-experimental designs, and only 1.7% used experimental designs.” As noted by Frese et al. [2012] when it comes to interventions there are almost no controlled, randomized experiments being done; most research in entrepreneurship is based on field studies, which need to control for alternative explanations. The landscape is slowly starting to change; a recent review found 40 articles in 29 academic journals publishing entrepreneurship research, which use experimental methods to explore a range of entrepreneurship topics, between 2000 and 2015 [Wieland et al., 2016]. However each methodological approach is not without challenge; for longitudinal and experimental

designs the challenge is external validity, for quasi-experimental design it is construct validity, for non-experimental design it is internal validity, and for qualitative research the challenges include internal, construct and statistical conclusion validity [Scandura and Williams, 2000, Aguinis and Lawal, 2012].

Business failure is a largely unknowable occurrence ex-ante; therefore it is common for studies to be conducted on the topic ex-post. A key methodological concern with such a research design arises from the issue of retrospective bias. Individuals are not only prone to biases as a result of hindsight, memory or self-reporting errors, but as time passes it is likely that the individual's perspective of the event will also adapt. This change is due in part to the sensemaking process, with progress through the process varying from person to person. However, despite these possible biases and potential errors, research conducted on the failure process ex-post is still a fruitful avenue for investigation. According to Cassar and Craig [2009, p. 150] "hindsight bias matters for future nascent activity". Similarly, attribution theorists argue that the way in which an entrepreneur views their failure experience influences how they respond to it and consequently their future career decisions. Thus, whilst it is desirable to get a true perspective of the process of failure, it is also meaningful to understand the full experience of the entrepreneur even if their view is somewhat distorted.

"Field experimentation attempts to stimulate as closely as possible the conditions under which a causal process occurs" [Gerber and Green, 2011, p. 2]. A challenge of field experimentation is the logistical and practical issues of conducting them, particularly at a scale sufficient enough for studying high-variance social phenomena [Chen and Konstan, 2015, Aguinis and Lawal, 2012]. Natural experiments, on the other hand, are the empirical study of individuals or firms that are naturally exposed to either experimental or control conditions, whereby the assignment of the condition is beyond the control of the researcher, as such it is considered a natural assignment. External validity can be a challenge for experimental designs [Aguinis and Lawal, 2012] particularly if the sample is not representative or if there is selection bias. Longitudinal designs and natural experiments on the topic of failure

can be difficult given the lack of ex-ante knowledge regarding failure; however wisely selecting a particular industry can overcome some of the ex-ante difficulties. Take for example the technology industry when the providers of a new product are jockeying for position, it is known ex-ante that some technological platforms will not survive (e.g. Blu-ray disc versus DVD). Thus for certain types of research questions on failure, such an industry conundrum can be a fruitful context for longitudinal designs or natural experiments.

Conducting a field experiment on business failure may raise ethical concerns. For a field experiment not only is it essential to get informed consent from the participant, but it is also important to understand the affects of various potential treatments on the participants' businesses. As previously discussed by [Frese et al. \[2012\]](#), new methods of exploring existing datasets are needed. Prior field experiments conducted on firms with the intention to explore particular treatments, and their impact, could be revisited to see whether the firms in the sample have sustained or disbanded. Potentially, they could be contacted again ex-post; such activity could serve to overcome the lack of longitudinal data on the topic through utilizing the power of existing data by revisiting it through the failure lens. Furthermore examining microcosms of failure could provide further detail on individuals' behaviors, responses and attitudes to the experience; in this instance lab experiments could be carried out using simulation programs to study one's reactions to various stimuli. Experiments of this variety are well established within the psychology field, as such there is the opportunity for cross-pollination.

5.2 Limitations within the business failure literature

As evidenced by this review, the literature on the topic of business failure is eclectic. The phenomenon impacts many stakeholders in society thus leading to the development of a multidisciplinary field. The various perspectives and disciplines enrich our insight and broaden the scope of research yet it also dilutes our knowledge. A key, and much discussed issue regarding business failure studies arise from the lack of definition of the concept (see Section 2). This deficit hinders comparability

between studies and adds noise to the field. A further limitation arises from the lack of a founding theory on business failure. There is no generally accepted theory that encapsulates the phenomenon. The accounting and finance paradigm continue to explore bankruptcy prediction modelling which with the integration of information technology has become increasingly sophisticated. The general management literature has tended to focus on exit [Burgelman, 1996; Hoetker and Agarwal, 2007] and turnaround strategies [O’Kane and Cunningham, 2013, 2014] whilst the entrepreneurship literature has, in recent decades, begun to examine the psychological manifestations of failure [Khelil, 2016]. The research field is fragmented with many researchers failing to refer previous theories and studies, leading to a general lack of consensus on the topic [Crutzen and Van Caillie, 2008].

A major issue within the business failure literature cited by Mellahi and Wilkinson [2004, p. 31] is the assertion “virtually all such studies are limited to one society, the US”. Whilst studies based in the US continue to dominate the literature the past decade has somewhat alleviated this issue. Entrepreneurial failure studies based on data outside of the US have been appearing in the *Journal of Business Venturing* in recent years; these include research from the UK [Ucbasaran et al., 2010, Cope, 2011], Tunisia [Khelil, 2016], Spain [Justo et al., 2015], Sweden [Jenkins et al., 2014, Wennberg et al., 2010], New Zealand [Singh et al., 2015] and Northern Europe [Mantere et al., 2013]. The growing prevalence of studies from other countries is a positive indication however the US context remains the most common setting for the majority of failure studies. A possible reason for this is likely to stem from the ease of access to data. As discussed the stigma around failure is less pervasive in the US than in other countries making it an easier subject to broach with entrepreneurs. Furthermore, large data pools gathering and tracking entrepreneurial activity are more typical in the US (e.g. Kauffman Firm Survey) and Northern European countries than elsewhere which may also play a role in contextual setting of research studies on the topic. On a positive note this trend is also changing as the Panel Survey of Entrepreneurial Dynamics (PSED), which originated at the University of Wisconsin, continues to be implemented

in countries around the world. The Global Entrepreneurship Monitor (GEM) and the Organization for Economic Cooperation and Development (OECD) research initiatives also facilitate comparable data from many countries around the world.

5.2.1 Retrospective biases

A clear limitation of business failure studies arises from the fact that the phenomenon is rarely examined in real-time but mainly through retrospective analysis. A real-time study of events is not appropriate for studying an ex-post facto phenomenon, such as failure, according to [Sheppard and Chowdhury \[2005\]](#). As the event is explored in retrospect it is more difficult to ensure that details of the failure are accurate and true. The time dimension is important for a number of reasons, as failure takes hold the sensemaking process begins, this involves changes in beliefs and actions over time [Weick et al. \[2005\]](#). Failure is open to multiple interpretations [[Maitlis, 2005](#)] and an individual's perspective changes as evidence supporting a particular viewpoint mounts; these changes can be viewed as learning [[Ucbasaran et al., 2013](#)]. Therefore the entrepreneur is likely to provide different responses, depending on the extent of their learning from the sensemaking process, if they are surveyed in the immediate aftermath of the failure as opposed to months/years down the line. Furthermore, as much of the research on business failure within the entrepreneurship context focuses on the individual entrepreneur, biases may also arise from self-reporting. Such retrospective reports may contain errors [[Golden, 1992](#)] due to respondents' motivations to influence the results, in addition to perceptual and cognitive limitations of respondents [[Shepherd, 2004](#)]. [Shepherd \[2004, p. 276\]](#) presented the example that entrepreneurs of failed firms may seek "to diminish the role of emotions in order to appear more 'rational'". Studies within the entrepreneurship literature using attribution theory have further elaborated on the debate, however consensus has not been reached. Some studies [[Mantere et al., 2013](#), [Gaskill et al., 1993](#), [Zacharakis et al., 1999](#)] detail entrepreneurs' willingness to take responsibility for business failure, whilst others [[Rogoff et al., 2004](#), [Franco and Haase, 2010](#)] found they avoid responsibility.

6

The Future of Business Failure Research within the Entrepreneurship Literature

Exploration into the phenomenon of business failure within the entrepreneurship field has just begun in earnest. The growth in qualitative research studies published in top tier journals [see [Singh et al., 2015](#), [Khelil, 2016](#), [Byrne and Shepherd, 2015](#), [Mantere et al., 2013](#)] is a testament to the novel methodologies currently underpinning contemporary research in the field. It signals a resurgence of interest in the field, resurgence is important as key facets of the phenomena are yet to be understood. A flaw, cited recently by [Khelil \[2016\]](#), asserts that much of the research on failure tends to be conducted at the firm level rather than at the individual level. More research focusing on the individuals experiencing failure is needed. It is essential that individuals' failure experiences are explored in varying organizational contexts — start-ups, private firms, public sector organizations, non-profits/social enterprises, universities, etc. Furthermore individuals' affective, cognitive and behavioral responses when confronted with business failure need to be better explored. Entrepreneurship as a field is uniquely positioned to provide fulfill these objectives. Individual-centric studies have long been common within the entrepreneurship literature [[De Vries, 1977](#), [Begley and Boyd, 1988](#), [Herron and Robinson, 1993](#),

Delmar and Davidsson, 2000]. This tradition of individual-focused studies can further such studies on business failure during the different stages of entrepreneurship, in a variety of profit and non-profit, sectoral and country settings. Furthermore, the multidisciplinary concepts necessary to examine the phenomenon of failure in detail are already present within the entrepreneurship literature. Theories and models from psychology [Shepherd, 2003, Cope, 2011], social psychology [Ucbasaran et al., 2013, Cardon et al., 2011, Shepherd, 2009a] and behavioral psychology [Morgan and Sisak, 2016, Singh et al., 2015, Cardon et al., 2011, Ucbasaran et al., 2010] are integrated into the field. In this section we outline some of the possible areas for future research on business failure within the entrepreneurship literature.

6.1 Future research on attribution

The search for causes of failure has manifested, within the entrepreneurship literature, into an examination of entrepreneurs' causal ascriptions for failure [Yamakawa and Cardon, 2015]. This has led to the adoption of attribution theory into the discussion. Self-serving attribution bias is inherent to attribution theory [Rogoff et al., 2004]. The bias occurs due to an individual's tendency to blame others for negative outcomes whilst attributing positive outcomes to his or her own abilities. Studies by Rogoff et al. [2004] and Franco and Haase [2010] found that the bias exists amongst entrepreneurs, however entrepreneurship theorists do not wholly accept it. Mantere et al. [2013] found no evidence of its existence amongst entrepreneurs. Furthermore other studies have found not only do entrepreneurs take responsibility for failure, but also they are *more* likely to cite internal factors as the cause of the failure than external factors [Gaskill et al., 1993, Zacharakis et al., 1999]. This marked difference in results necessitates further analysis. Some explanations for the difference have been offered — overconfident entrepreneurs tend to attribute their failure to external factors [Busenitz and Barney, 1997, Eggers and Song, 2015], however taking responsibility for failure can be a form of catharsis [Mantere et al., 2013]. The way entrepreneurs' attribute their firms' failure is dependent

on their individual characteristics, more research is needed to better understand the connection between the individual's perspective and their resultant attributions. The effect entrepreneurs' attributions have on future actions also warrants investigation [Mandl et al., 2016]. Preliminary research shows that failure attributions influence future action, however, the way in which they impact future action is, as of yet, unclear [Mandl et al., 2016, Yamakawa and Cardon, 2015]. Studies that examine failure attribution among serial, social, family and scientific entrepreneurs may provide further insight into this link. Whilst the role of gender in influencing future action has been explored to a degree [Simmons and Wiklund, 2011, Levie et al., 2013] more studies are warranted as we understand more about the role of affect and emotion in failure responses. Moreover studies contextualized in new cultural settings would increase our understanding of the role cultural dimensions [Simmons et al., 2014, Cardon et al., 2011] play in future entrepreneurial action.

6.2 Future research on learning from failure

To date, a clear link has been established between failure attributions and consequential learning from the failure experience [Cope, 2011, Eggers and Song, 2015, Walsh and Cunningham, 2015]. Learning from failure can be instrumental to future success. If entrepreneurs are accepting their part in their firm's failure, they can take steps to minimize the influencing factor's role in threatening future entrepreneurial venturing. Much literature exists on the benefits of learning from failure [Cope, 2011, McGrath and Cardon, 1997, Schoemaker and Gunther, 2006, Ucbasaran et al., 2010]. To a lesser, but still impactful degree, studies also detail the factors that impede or enhance learning, such as culture [Simmons et al., 2014, Cardon et al., 2011] or social supports [Nielsen and Sarasvathy, 2011, Ucbasaran et al., 2013]. Learning is not guaranteed or instantaneous [Shepherd, 2003] it is a process that as yet remains unclear [Yamakawa and Cardon, 2015]. A measure for learning outcomes from failure needs to be developed [Yamakawa and Cardon, 2015] and further clarity is required on how, if at all, a failure experience

can increase an entrepreneur's future likelihood of success. Furthermore, beyond learning from the aftermath of failure, more research is needed in the years before potential failure occurs [Shepherd, 2004]. Equipping pre-nascent entrepreneurs and entrepreneurship students with the techniques to recognize and cope with cognitive and affective responses to failure is necessary to reduce anti-failure biases and the stresses inherent to a failure experience [Shepherd, 2004]. Andrew Corbett further stressed this perspective during his recent keynote speech at the 2016 USASBE conference in San Diego. Thus, whilst learning *from* failure is important, so is learning (and teaching) *how* to fail. A comparison research study or experiment that can explore, if, and how, those who receive pre-nascent training/education on failure and those who do not, differ affectively, cognitively, and/or behaviorally following a subsequent failure experience would likely provide important insights into the learning process.

6.3 Future research on emotion and failure

Research on affect in response to business failure has been one of the more prolific topics within the entrepreneurship literature. Grief and sensemaking have been explored through numerous studies [Jenkins et al., 2014, Shepherd, 2009a,b, 2003, Shepherd et al., 2011, Cardon et al., 2011, Wolfe and Shepherd, 2015]. Fear of failure has also come under scrutiny [Morgan and Sisak, 2016, Mitchell and Shepherd, 2011, Cacciotti and Hayton, 2015]; it is often portrayed as an impediment to entrepreneurship and the positive, motivating aspects of the emotion have been largely ignored within the entrepreneurship literature [Morgan and Sisak, 2016]. Whilst we agree that the motivating aspects of fear of failure have been largely under-explored within the business failure literature, we argue that fear of failure, as a deterrent to entrepreneurship, may be positive, in certain circumstances. When an individual presents a healthy fear of failure, it may act as a valid screening tool. It is neither constructive nor conducive for nascent venturing for entrepreneurs to pursue all, or even most opportunities that present. Fear of failure can be used to gauge the quality of opportunities under

consideration and the risks individuals are willing to take to pursue said opportunities. Future research should also acknowledge and explore the dualistic nature of fear of failure (e.g. individuals' high in fear of failure may either engage in safe tasks with a low possibility of failure or engage in difficult tasks where failure can be attributed to factors beyond their control — Cacciotti and Hayton, 2015). Furthermore, distinction between fear of failure as a *trait* and as a *state* must also be acknowledged. Fear of failure as a state aligns with the duality of the concept, wherein fear of failure is the result of psychological processes induced by situational characteristics [Mitchell and Shepherd, 2011, Cacciotti and Hayton, 2015]. Whilst we concur that more studies on the motivating nature of fear of failure are to be encouraged we also urge researchers not to dismiss the positive aspect the inhibitive element fear of failure also has (e.g. acting as a screening and prospective risk tolerance tool).

6.4 Future research on recovery from failure

Stigma is another popular research strand on the topic of business failure. Despite being regarded by some as a consequence of business failure [Cardon et al., 2011], others [Singh et al., 2015] posit it surfaces far sooner when entrepreneurs are anticipating failure. This leaves us with a question as to the propagators of stigmatization as a result of failure — how much is stigma a direct consequence of the failed entrepreneur's environment (cultural, social and legal context) and how much is related to the individual's self-fulfilling prophecy? An entrepreneur's attitude towards failure (even in the anticipation stage) is shaped by the cultural, social and legal environment within which the firm operates. However we argue that an individual has a level of agency over the level of stigma they are confronted with, they can, offset the potential costs of stigma with proactive behavior during the anticipation stage. By this we mean strengthening links to social influencers within their network, confronting the failure (withdrawing due to shame or guilt is likely to increase stigmatization) and shaping the failure story (during the anticipatory stage failing entrepreneurs

have a chance to frame their failure narrative), if done appropriately we argue that these actions can stymie stigmatization to a degree. More research on the entrepreneur's potential to mitigate the impact of stigmatization and associated actions would shed light on the individual's failure journey. It would provide balance to existing research by [Singh et al. \[2015\]](#) that explores the harmful behaviors that exacerbate stigmatization. Furthermore, such research would complement existing studies focusing on the environmental determinants of stigmatization (e.g., social — [Wiesenfeld et al., 2008](#); cultural — [Simmons et al., 2014](#); and legal — [Efrat, 2006](#)) and add to the limited literature on recovery from business failure.

6.5 Future research on the costs of failure

The costs of failure can be tangible and intangible. Numerous studies to date have explored the economic costs of failure [[Dew et al., 2009](#), [McGrath, 1999](#)] whilst others have delved into the social and personal costs of failure [[Cope, 2011](#), [Singh et al., 2007](#), [Jenkins et al., 2014](#)]. However the costs of lingering [[Arora and Nandkumar, 2011](#)] and persisting with an underperforming firm [[DeTienne et al., 2008](#)] are not to be dismissed from the discussion into failure [[Khelil, 2016](#)]. Survival is not a proxy for success anymore than discontinuance is a proxy for failure. [Crutzen and Van Caillie \[2008\]](#) argue that if future literature is to have a true impact on business failure from a preventive perspective the various research disciplines need to converge to create an integrative framework. However we posit that the goal of future failure research should not concern itself with preventing failure, failure is, after all a hallmark of a vibrant economy [[McGrath, 1999](#)]. The goal of future research should continue to explore how entrepreneurs can fail intelligently [[Cannon and Edmondson, 2005](#)] and avoid artificially prolonging underperforming firms, whilst minimising the negative fallout from a failure experience.

6.6 Future research on passion and business failure

A topic we believe can add further nuance to future business failure literature is passion. Passion, according to [Cardon et al. \[2013\]](#) is at

the heart of entrepreneurship. Not only because it can foster creativity essential to the discovery and exploitation of new opportunities but it also encourages persistence and adaptation to be successful even amidst obstacles [Cardon and Kirk, 2015, Baron, 2008]. When failure occurs passion can be a powerful emotion; it may sustain the entrepreneur and motivate them to either continue persisting in the face of failure or channel their passion into new initiatives in order to realise their goals. Entrepreneurs often form strong bonds and express identification with their firms to the extent that they refer to them as their “babies” [Cardon et al., 2005]. Passion is defined as “a strong inclination toward a self-defining activity that people like (or even love), find important, and in which they invest time and energy on a regular basis” [Vallerand, 2012, p. 1]. Traditionally passion is regarded as a positive emotion, however its duality can be traced back to its inception whereby passion is derived from the Latin word *passio*, meaning suffering.

Entrepreneurial passion remains unexplored in the business failure context, however its importance has not gone unnoticed. A seminal paper by Cardon et al. [2005] exploring metaphors discussed entrepreneurial passion during the onset of business failure; the image of a terrorist was given, where the end justifies the means, they are willing to sacrifice everything, even their wellbeing, for the cause, i.e. prolonging the firm. Such an attitude reflects the fact that individuals are more hesitant to give up affect-filled rather than affect-free goods [Zellweger and Astrachan, 2008, Meyer et al., 1993]; therefore a strong level of attachment can impact an entrepreneur’s behaviors. Attachments are common for entrepreneurs to develop in projects they passionately believe in, however if such projects suffer setbacks this is felt as an emotional blow [Royer, 2003, Shepherd and Kuratko, 2009]. Exploring the dualistic nature of passion further Vallerand et al. [2003] proposed the dualistic approach to passion, encompassing both harmonious and obsessive passion to illustrate the opposing characterizations of the way an activity is internalized into one’s identity. More research on this dualistic approach is needed within the entrepreneurship literature [Murnieks et al., 2014]. Thorgren and Wincent [2015, p. 224] have discussed the need for research that examines the pressures that lead to contingencies being attached

to entrepreneurship, as they believe this will “explain differences between harmonious and obsessive passion”. We argue that business failure is a prime context within which to explore the various facets of entrepreneurial passion as the contingencies an individual attaches to entrepreneurship become evident when the failure process begins. Insights into passion and its impact on entrepreneurs’ behaviors during and after the failure process have the potential to offer new and exciting insights into both failure and passion.

Finally, the more we understand the different aspects of entrepreneurial business failure the greater entrepreneurs, business and society can benefit in terms of education, legislative environment and social supports. Researching failure is challenging with respect to data collection however a plurality of methodological approaches is necessary to further advance our understanding of the entrepreneurial failure experience. Further studies may also contribute by providing evidence for use in curriculum development and supporting the potential growth of courses within entrepreneurship programs specifically focused on business failure. An increasing body of research benefits supporting institutions and actors by equipping them with the knowledge needed to adequately advise, direct and advocate for nascent and pre-nascent entrepreneurs. More fundamentally further studies on entrepreneurial business failure can provide insights into other categories of entrepreneurs at an individual level and in doing so provide knowledge, reassurance and solace about the different facets of failure. Entrepreneurs and entrepreneurship are vital to national economies. Developing the field of business failure requires breadth of theoretical approaches, openness to pluralistic methodological approaches, empathy with entrepreneurs that have failed and an ambition to both contribute to the body of knowledge with a willingness to disseminate findings beyond the academy.

6.7 Future research on gender and business failure

According to [Robb and Watson \[2012\]](#) no difference has been found in the performance of female- and male-owned new ventures. Furthermore

gender is considered irrelevant with regards to determining survivability and success at closure [Headd, 2003]. However gender may still play an important role in the entrepreneurial process. In the entrepreneurial context masculinity is the default setting, women forging a career in this context may be obliged to ‘oscillate’ between symbolic spaces of masculinity and femininity [Marlow and McAdam, 2015, Bruni et al., 2005]. Debates on entrepreneurial identities have been criticized for being largely gender blind [Ahl and Marlow, 2012], this is an issue as gender biases persist in many industries to this day. The technology industry is one such example, embedded masculinity within the sector serves to marginalize the feminine [Wajcman, 2004, Walby et al., 2009, Marlow and McAdam, 2015]. Female technology entrepreneurs stand at only between 5% and 15% within Europe [Walby et al., 2009, Wynarczyk and Marlow, 2010]; a recent study by Marlow and McAdam [2015] suggests that women operating in this space engage in various forms of gender-specific identity work to enhance their chances of success.

Humans’ identities are shaped, in part, by social interactions; the actor strives to shape a coherent self-identity this is reflexively articulated through social performances [Marlow and McAdam, 2015, Watson, 2009]. When masculinity is expected as the norm, women adapt their behaviors to gain legitimacy, overcome biases, and become socially accepted in the heavily masculine context [Marlow and McAdam, 2015]. In turn, this shapes these women’s identities and can influence other aspects of their entrepreneurial journey. Identity, and in particular self-identity, plays an important role in the development of stigmatization and the emergence of passion. Stigmatization occurs as part of a process whereby an individual’s identity is denigrated (see Section 4.4.1), whilst passion occurs when an activity is internalized as part of one’s identity (see Section 6.6). Future research exploring the role of gender in the development of one’s entrepreneurial identity, and the subsequent impact an entrepreneurial failure experience has on this identity, would facilitate an understanding of persisting gender biases within the entrepreneurial space. Furthermore, examining stigmatization and passion from a gendered perspective may provide a more nuanced view of the business failure phenomena.

Gender may also play a role in entrepreneurial learning. Sports psychology literature posits that gender influences learning style; female athletes were found to have a greater willingness to change yet find it harder to do so, whilst their male counterparts had a greater ability to change [Miller et al., 2008]. Furthermore female athletes were more inclined to doubt their abilities whilst male athletes have a tendency to exaggerate in this respect [Miller et al., 2008]. Confidence and overconfidence (previously discussed in Section 4.3) can generate entrepreneurial resilience and may reduce the emotional costs of failure [Hayward et al., 2010, Ucbasaran et al., 2013]. Clearly the entrepreneurship is a different context to competitive sports however entrepreneurial environments are generally regarded as highly competitive [Baron, 1998] and as such some similarities in gendered approaches are possible. A meta-study on emotional intelligence by Joseph and Newman [2010] found that women tend to use emotion more often and in more appropriate ways than men. The potential link between gender and emotion within an entrepreneurship context may also be interesting to explore from a passion perspective. Within the management psychology literature emotional regulation is cited as critical for recovery from business failure and for learning from the experience [Boss and Sims Jr, 2008]. Additional, context-specific research is necessary to better understand if the same attitudes and behaviors apply in an entrepreneurial setting.

7

Conclusions

This monograph charts the evolution of business failure from its initial inception in accountancy and finance, through to its popularity in the contemporary entrepreneurship literature. Failure is an omnipresent threat for many entrepreneurs, particularly at the nascent venturing stage; it is a topic that warrants careful consideration by entrepreneurship researchers. Yet both business historians and management scholars argue that studies to date have mainly concentrated on studying success cases and paid relatively little attention to firm failure [Riviezzo et al., 2015]. However, as highlighted by this review interest in the various facets of failure is increasing, and although studies on business failure remain disparate, studies exploring key aspects of the failure phenomenon are gaining momentum. In order to stop the field of business failure research turning into a “weed patch rather than a well tended garden” research that can facilitate a general consensus on the fundamentals of the failure phenomenon and resolve theoretical disputes are needed [Pfeffer, 1993]. The fact that there are fundamental differences between theory-generated conceptualisations of business failure (see Table 2.1) and the data-driven definitions used in practice (see Table 2.2) is an issue that needs to be acknowledged. This monograph

provides insight into the key debates that have shaped the field to date and offers suggestions for future research streams that can facilitate cohesive progression of research on the business failure phenomenon within the entrepreneurship field.

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