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## Formal Business Plans as Myth and Ceremony: Education and Practical Implications

Darius Mahdjoubi<sup>1</sup> and David V. Gibson<sup>2\*</sup>

Adjunct Professor, Graduate Faculty of Entrepreneurship, University of Tehran, Iran<sup>1</sup>

Senior Research Scientist and Associate Director, IC<sup>2</sup> Institute, The University of Texas at Austin, USA<sup>2</sup>

### Abstract

Business plan competitions and related education are common activities to regions that are, or desire to be, important innovative and start-up regions. The literature is contradictory regarding the value of formal business plans (FBPs) toward venture planning, capital acquisition, and education. This study analyzes the relevant literature and sample of 35 FBPs to assess these contradictions. We propose the theoretical constructs of “myth and ceremony” to explain the loose coupling of FBPs to real business environments, an observation consistent with theory that suggests organizations perpetuate the myths of their institutional environment to maintain their legitimacy. We offer Action Business Planning as an alternative to more accurately address the realities of venture creation and survival, and for education.

### Keywords

Entrepreneurship, Entrepreneurial education, Business plans, Education policy


## 1. INTRODUCTION

What is the true value of formal business plans (FBPs)? Is it to maximize the successful launch a new business venture or to assist with raising capital? Or is a main value of writing a FBP to educate students about important managerial, marketing, and financial considerations in new business development? In this study we provide a brief literature review of those who argue for, and those who argue against, the value of FBPs as a useful tool for venture planning, for raising capital, and in terms of education. To contribute to this discussion we analyze a sample of 35 FBPs, from leading US and international business schools, presented during 1984 to 2004, at one of the nation's first and most

respected business plan competitions. After a careful analysis of the business plans of the winning teams and also a random sample of other competing teams we offer two conclusions. First, the financial analyses presented in FBPs tend to be loosely coupled (Weick 1977; Orton and Weick 1990) to the business plan's operational aspects as well as to realistic expectations of venture success. Second, FBPs are presented in business plan competitions as a form of “myth and ceremony” (Meyer and Rowan 1977) to signal to the external environment that the FBP meets commonly accepted norms and expectations of successful business development. Given these observations, and based on our literature review, we suggest that FBPs are of limited use for venture launch and for educational purposes. As an alternative scenario, we offer Action Business Planning, to better articulate the process of business planning in real world environments.

\*Correspondence to : David V. Gibson  
Senior Research Scientist and Associate Director, IC<sup>2</sup> Institute, The University of Texas at Austin  
2815 San Gabriel St., Austin, TX 78706 USA  
E-mail: davidg@ic2.utexas.edu

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## 2. LITERATURE REVIEW

The literature review for this paper is organized by research

that assesses formal business plans (FBPs) as to their usefulness in launching a new venture, to raising external capital, and for education.

## 2.1 Launching a New Venture

On the one hand, a well-structured and written FBP has been described as a major step towards launching a successful venture (Ames 1989; Hindle 1997; Kahrs 1995; Maitland 1996). Castrogiovanni (1996), in "Pre-Startup Planning and the Survival of New Small Businesses," reviews a long bibliography of major sources that relate to formal business planning and he concludes that the value of planning is context-dependent and that this view should be applied when launching new ventures. Lumpkin et al. (1998), in "Does Formal Business Planning Enhance the Performance of New Ventures?" analyzed questionnaires of 54 new and 40 established firms to discern potential links between planning and performance. These authors conclude analysis indicated no significant correlation between using a formal written plan and firm performance. However, the paper does indicate that limited support exists for planning for small, unaffiliated and non-diversified firms. This research also addressed the type of planning that contributed to performance as firms aged and the authors concluded that effective planning may not need to be in the form of a written business plan. Perry (2001) in "The Relationships between Written Business Plans and the Failure of Small Businesses in the U.S." observes that very little formal planning goes on in U.S. small businesses; however, successful firms do more planning than similar firms did prior to their failure. In "The Multiple Effects of Business Planning on New Venture Performance," Burke et al. (2010) concludes that business plans promote employment growth. Zipple-Schultz and Schultz (2011) in "Mediated and Moderated Effects of Business and Project Planning on Innovation Projects in Hospitals", conclude that business planning is more important to achieve a high degree of innovativeness and when the efficiency of project planning is limited to incremental innovations, also see Delamr and Shane (2003).

On the other hand, over time the importance of formal business plans has been increasingly questioned as to their importance in the growth and success of new ventures. Cooper (1993) summarizes key challenges that arise in attempting to predict new firm performance. He concludes, "a key factor is the heavy dependence of new ventures upon environmental developments, many of which may be very difficult to predict." Bhide (1994), in "How Entrepreneurs Craft Strategies," con-

cludes, on the basis of a study of nearly one hundred companies, that most entrepreneurs spend little effort on their initial formal business plan. Bhide indicates that among the companies he studied, 41% had no formal (classical) business plan; 26% had just a rudimentary, back-of-the envelope type plan; 5% had worked-up financial projections for investors; and 28% had written a full-blown, formal business plan. "Longitudinal Analysis of Relationships between Planning and Performance in Small Australian Firms" (Gibson et al. 2001) summarize responses from 2,956 Australian businesses, over a four-year period, about planning and performance. The paper concludes that there is no relationship between the introduction of business planning and subsequent firm performance. Indeed these authors contend that planning is more likely to be introduced to a small firm *after* a period of growth, rather than *before* a period of growth. The study states, wholesale encouragement of formal business planning by the small business sector does not appear warranted.

*Burn Your Business Plan* (Gumpert 2002) summarizes the results of a study of 42 venture capitalists and discusses practical aspects of formal business plans. He concludes that writing a business plan could be counterproductive, even though he estimates that each year approximately 10 million formal business plans are written worldwide. Zinger and LeBrasseur (2003) in "The Benefits of Business Planning in Early Stage Small Enterprises" investigates the business planning/new venture relationship within the context of a three-year research project. The paper concludes that business planning in the venture's pre-startup period has no significant, direct association with survival or failure in the early stages.

Following 396 nascent entrepreneurs during a two-year period, "Institutional Forces and the Written Business Plan" (Honig and Karlsson 2004) examines factors that led organizations to write business plans. The paper concludes that there was no evidence to support positive outcomes for those nascent organizations that produced business plans. Using a six-year time horizon, Honig and Samuelsson (2008) find no successful impact for those who planned at the start, but do find a small improvement for those who wrote plans two years after starting their business. According to Karlsson and Honig (2009) the value and positive effectiveness of formal business plans has been taken for granted rather than critically studied, and they argue that the relationship between formal business plans and business performance is open to doubt (Karlsson and Honig 2009). Sahlman (1997: 97) in "How To Write a Great Business Plan" argues that on a scale of 1 to 10, formal business plans actually

rank no higher than 2 as a predictor of a new venture's successes. He states, "Sometimes the more elaborated and crafted the document, the more likely the venture is to flop, for lack of a more euphemistic word".

Given the above discussion, it is important to make a distinction between Formal Business Plans (FBPs), and Process of Business Planning (PBP). A Formal (classical) Business Plan (FBP) normally consists of commonly accepted procedures that summarizes the general description and financial projections of a new business venture or a new project inside an existing firm (Timmons and Spinelli 1999). While PBP is a more dynamic process that may be presented in the shape of narrative or oral descriptions, sketches, or drawings. Research papers often make no distinction between formal business plans and the process of business planning as well as major applications of business plans, and potential relationships between business plans and initial sources of financial capital. For example, Arthur Rock, well-known venture capitalists, downgrades the importance of formal business plans in the success of firms, while he emphasizes the importance of execution<sup>1</sup>. Rock claims "Good ideas are a dime a dozen. Good execution and good management are rare" (Rock 1987).

## 2.2 Formal Business Plans and Finance

Formal Business Plans are also prompted for their value in obtaining new sources of capital from venture capitalists (VCs) and business angles, loans from banks, and financial grants from governmental agencies. The Origin and Evolution of New Businesses (Bhide 2000) (which is a continuation of his 1994 paper on "How Entrepreneurs Craft Strategies") examines the impact of sources of financial capital on business plans. The study argues that most bootstrap (self funded) ventures are based on quick improvisation and rarely on formal business plans. At the other extreme, he states, corporate funded ventures follow a much more rule-based and structured approach to business planning. Venture capital (VC) funded entrepreneurs, Bhide argues rely more on anticipation and planning and less on improvisation and adaptation. While this claim seems to have merit, there is still controversy. For instance, Gordon Moore and Bob Noyce established Intel in July 1968 based on a one page business plan by which Arthur Rock lined up \$2.5 million investment, in less than two days" (Intel Museum). The following case also demonstrates that

venture capitalists also look beyond formal business plans.

*In October 1980, 3Com began to seek venture capital in order to begin developing hardware products. In February 1981, 3Com received the first round funding of \$1 million from VC investors who looked beyond the formal plan and were attracted by Metcalfe's vision and charisma, as well as his team's strong technical talent (Chesbrough 2002: 81).*

Numerous case-based studies show that many successful entrepreneurs did not launch their ventures by writing formal business plans. This list includes, but it is not limited to Bill Hewlett and Dave Packard (founders of HP), Bill Gates and Paul Allen (founders of Microsoft), Steve Jobs and Steve Wozniak (founders of Apple), Michael Dell (founder of Dell Computer), Richard Branson (founder of Virgin Group), and John Mackey and Renee Lawson Hardy (founders of Whole-Foods Market). The fact that entrepreneurs, such as Bill Gates or Michael Dell had no FBP (Formal Business Plans) to start their ventures should not be interpreted that they minimized planning or they did not benefit from the advice of experienced mentors. A study of their biographies (Gates 1995; Dell 1999) shows that both had long thought about their future venture starting when they were high school students and both benefited from experienced mentors more than on formal business plans. For example, Michael Dell attributes much of DELL Corporation's phenomenal success to two key mentors.

*In trying to create a wish list of directors, we came up with two names: George Kozmetsky and Bob Inman. Both lived in Austin, had knowledge of the computer industry, and had very distinguished backgrounds. ... Their presence gave us a huge boost in credibility; young companies like DELL typically don't have such a strong board starting out. As the original Board Members, George and Bob set a precedent of sage advice and valuable counsel that has helped carry us to where we are today. (Dell 1999:21)*

Lange et al. (2007) contends that there is no difference between the performance of new businesses launched with or without written business plans, as he states, "unless a would

<sup>1</sup> Arthur Rock is the famous venture capitalist who provided funding for Fairchild Semiconductor in the 1950s, Intel and Teledyne in the 1960s, and Apple Computer in the 1970s.

be entrepreneur needs to raise substantial start-up capital from institutional investors or business angels, there is no compelling reason to write a detailed business plan before opening a new business.” This observation has been referred to in other papers and studies. Lange et al. (2007) in a study of 116 firms founded by Babson College alumni concluded that those who completed business plans did no better in regard to business measures, but those who wrote a business plan within the first twelve months raised twice as much external investment as those who did not. Ashamalla et al. (2008) studied venture capitalists rather than entrepreneurs and according to his research, “58% of VCs think a business plan is somewhat indicative of a company’s future prospect.” However, these researchers did not ask the VCs, “Do you make decisions for investment based on the content of the formal business plan.” Kirsh et al. (2009), in “Form or Substance: The Role of Business Plans in Venture Capital Decision Making” concludes that the presence of planning documents and the information contained are only weakly associated with VC funding decisions. Lovallo and Kahneman (2003), in their study of “planning fallacy,” provide an eloquent criticism of formal business plans as follows:

*When forecasting the outcomes of risky projects, executives all too easily fall victim to what psychologists call the planning fallacy. Studies that compare the actual outcomes of capital investment projects with managers’ original expectations for those ventures show a strong tendency toward over-optimism. An analysis of start-up ventures in a wide range of industries found, for example, that more than eighty percent failed to achieve their market-share target. . . . The cognitive biases that produce over-optimism are compounded by the limits of human imagination. No matter how detailed, the business scenarios used in planning are generally inadequate. The reason is simple: Any complex project is subject to myriad problems—from technology failures to shifts in exchange rates to bad weather – and it is beyond the reach of the human imagination to foresee all of them at the outset. As a result, scenario planning can seriously understate the probability of things going awry (Lovallo and Kahneman 2003: 58).*

### 2.3. Formal Business Plans and Education

Formal business plans are an integral part of many MBA and entrepreneurial programs and a central feature of academic business contests worldwide. European Forum for Management Development – EMFD conducted a survey and concluded that the business plan is central to most taught entrepreneurship education programs (EMFD 2004). Honig and Karlsson (2004) reviewed the 100 top universities in the U.S., and it observed that 78 offered courses on formal business plan education. Many universities conduct or endorse business plan competitions and emphasize the link between the educational, operational and financial aspects of FBPs. Hill (1988) researched leading entrepreneurship educators in the mid-1980s and concluded that the development of formal business plans holds the most important course feature of entrepreneurship education. In support of the educational value of FBPs, there are many books and other documents, including web-based programs, on how to write a formal business plan (Poon 1996; Stevenson et al. 1999; Timmons and Spinelli 1999; Lambing and Kuehl 2000; Wickham 1998; Kuratko and Hodgetts 2001). A review of Amazon.com, in May 2013, revealed that more than 1100 books and other sources exist on the subject of “formal business plans.” This list includes both academic and professional publications.

**Formal Business Plans Competitions.** Business plan competitions are one of the venues that use formal business plans to decide the most competitive ventures. A recent study of Business Plan Competition (BPC) web-site indicates that as of July 2013, there are more than 190 business plan competitions in the U.S. California with 19 and Texas with 11 competitions lead the nation. The first prize for some competitions exceeds \$100,000<sup>2</sup>. Business plan competitions are not limited to the U.S. and they are widespread across the globe. Russell et al. (2008), in “Business Plan Competitions in Tertiary Institutions,” emphasize the impact of The University of Texas at Austin, Moot Corp competition and the MIT Business Plan Competition largely because of their impact on other university-based business plan competitions.

## 3. THEORY

In the present study, we refer to “Institutional Organiza-

<sup>2</sup> Source: (<http://www.bizplancompetitions.com/about>).

tions: Formal Structure as Myth and Ceremony” (Meyer and Rowan 1977) to explicate the findings. We believe the theory described in this research allows us to explore innovative analysis and interesting conclusions, based on the data and observed patterns. Meyer and Rowan’s theory (1977) can be summarized in the following points: 1) Formal organizational structures may arise as a reflection of rationalized institutional rules; 2) Institutional rules function as myth which organizations incorporate to gain legitimacy, resources, stability, and enhanced survival; 3) These rationalized elements give rise to formal organization structure; and 4) Organizations whose structure becomes isomorphic (having similar forms) with the myths of the institutional environment decrease internal coordination and control in order to maintain legitimacy. In this way, we associate Meyer and Rowan (1977) with Loose Coupling Theory of Weick (1976). Loose coupling intends to capture the necessary degree of flex between an organization’s internal abstraction of reality on the one hand and the external reality within which it acts. Loose coupling is what makes it possible for ontologically incompatible entities to exist and act on each other without shattering.

In “Judging a business by its cover” (Karlsson and Honig 2009) used an institutional perspective to review the operational implications of formal business plans among a group of Swedish businesses. The paper concludes that initial conformity to business plan norms gradually and without exception leads to loose coupling. Weber et al. (2009) in “Policy as Myth and Ceremony” studied the spread of the stock exchange and concluded that international coercion was associated with more ceremonial adoption, but that contrary to expectations common in institutional research, contagion processes via peer groups and normative emulation of prestigious actors enhanced vibrancy. “Planning for Entrepreneurial Finance and Capital” (Honig 2012) reiterated a similar conclusion that business planning production seems to be taken for granted and is more linked to traditions and ritual than to competition and efficiency.

#### 4. METHOD

This study based its analysis on a selection of FBPs from one of the nation’s first and most prominent business plan competitions: The Moot Corp Business Plan Competition which was launched by the IC2 Institute and the Graduate School of Business at UT-Austin in 1984<sup>3</sup>. This was also one of the first new-venture competitions to host teams from top-ranked MBA programs from around the world (Cadenhead 2002). Key initiators of Moot Corp were two MBA students who simulated the “moot court” concept to foster the business plan competition<sup>4</sup>. The first Moot Corp competitions involved only UT-Austin MBA students. The program held its first national competition in 1989 with teams from Harvard, Wharton, Carnegie Mellon, Michigan, and Purdue universities. In 1990, the program became international, with teams from London Business School (UK), Lyon School of Business (France), and Bond University (Australia). In 1992 the program expanded, by inviting winners of other national and international business plan competitions. Participation in the UT-Austin’s Global Moot Corp Competition was by invitation and by winning one of a select number of national and international business plan competitions<sup>5</sup>. Winning teams came from the Chinese University of Hong Kong, the University of Georgia, the University of Indiana, San Diego State University, the University of Oregon, and the University of Nebraska-Lincoln.

This study drew its sample of FBPs from the database of Moot Corp Business Plan Competition, which consists of 382 formal business plans submitted to Moot Corp between 1991 and 2009.<sup>6</sup> Two groups of Moot Corp formal business plans were reviewed from 1993 to 2009:

- Set A consists of one business plan randomly selected for each year
- Set B consists of the winning business plan for each year

These two sets of business plans were reviewed in depth. A main objective was to investigate the content and organization

<sup>3</sup> The UT-Austin Business School became known as “McCombs School of Business” in May 2000. The Moot Corp Business Plan Competition name was changed in 2010 to “Venture Labs Investment Competition.”

<sup>4</sup> A “moot court” is an extracurricular activity at law schools where participants take part in simulated court proceedings which usually involves drafting briefs (or memorials) and participating in oral arguments. The term derives from Anglo-Saxon times when a moot was a gathering of prominent men in a locality to discuss matters of local importance.

<sup>5</sup> Appendix A lists the participating universities in the Moot Corp Business Plan Competition. The authors of this paper are grateful to Moot Corp program managers who collected the competitions FBPs for almost 20 years and who allowed us access to this database for our research.

<sup>6</sup> The archived business plans for each year is not even, as it varies between 1 to 44 with an average of 22/year. Randomly selecting one business plan for each year was done, in part, to decrease the impact of this uneven distribution.



used in the FBPs for the winning teams as well as the randomly selected teams that participated in Moot Corp Competition. All the business plans reviewed consisted primarily of two sections: General and Financial. The General Section described the main aspects of a proposed new venture including such topics as product description, market and human resources including the founders and needed personnel. The Financial Section covered such topics as income, cash-flow and balance sheets. The Financial Sections were based on predictions of financial events in the form of accounting for the future or reverse accounting and relied on numbers and tables to convey content. Each of the two groups of selected business plans (Randomly Selected Participants and Winners) were analyzed based on the following categories<sup>7</sup>:

- 1) Sales Patterns
- 2) Rate of growth: Sales in year 5 over sales in year 1
- 3) Net-income Patterns
- 4) Net-income Margin (NEM) in Year 5
- 5) Duration of the Valley of Death (from startup to breakeven)
- 6) Needed Capital, Based on Financial Tables (Accumulated Negative Cash-flow)
- 7) Capital Contributed by the Founders
- 8) Capital Requested from Investors
- 9) Explicit Links between “Calculated Needed Capital, Based on Financial Tables” and “Capital Requested from Investors”
- 10) Investors Role in Total Capital Investments
- 11) Investors Share in Stock and Equity
- 12) IRR (Internal Rate of Return)

## 5. PATTERNS

### 5.1 Sales Patterns

The submitted business plans (both Randomly Selected and the Winning Teams) consisted of data that predicted sales within 5 years. Plotting this data revealed that almost 80% of the cases predicted that they would experience growth in the shape of “Short-Tail S form”, also known as Hockey Stick”. About 15% of the cases predicted a linear and ever increasing pattern of sales.

**Observation:** No doubt there have been new ventures with very rapid rates of growth like Lotus Software; however, ventures with very rapid patterns of growth (Short-Tail S form) are extremely rare. Indeed, very successful ventures such as Wal-Mart, Starbucks, Microsoft, Dell Computer, and Apple, in their early years, did not have a Short-Tail S form of growth.

### 5.2 Rate of Growth of Sales

Table 1 and 2 demonstrate the rate of growth of sales in year 5 over year 1. The Randomly Selected and the Winning Teams between year 1 and year 5 on average increased their sales 125 and 45 times. Although the rate of growth in both groups is fairly high, the average rate of growth of the Winning Teams is about 1/3 of the same for Randomly Selected Teams.

### 5.3 Patterns of Net Income

Net Income is the difference between revenues (due to sales) and expenses (due to costs). The submitted business plans (both Randomly Selected and the Winners) predicted data regarding patterns of net-income margin in the scope of 5 years. Plotting this data reveals that almost 90% of cases predicted that they would have shallow V shape patterns for their Net income. V-Shape pattern of net income is consistent with the patterns of growth in the shape of “Short-tail S model.”

### 5.4 Net Income Margin

Net-income margin represents the ratio of net income to total revenue<sup>8</sup>. This number is used to judge the profitability and efficiency of a business, by expressing what percentage of total revenue must be used to pay expenses and liabilities. A sustainable net income margin is one of the indicators of a healthy business. On the one hand, if net income margin of a business is too low, it means the business may be insufficiently profitable. On the other hand, if Net Income Margin is too high, it makes it easy for competition to enter to the market and the business will not be sustainable.

**Observation:** There is limited data that tabulates the Net-Income Margin of businesses, but the percentages derived from calculating Net Income Margin of a group of successful businesses, shows the scope of Net Income Margins: Amazon: 5% to 7%, Apple: 10% to 15%, Ben and Jerry Ice Cream: 2 to 4 %, Coca Cola: 2% to 3%, Dell: 4% to 8%, IBM: 5% to 15%, Microsoft: 20%

<sup>7</sup> Please refer to Table 1 and 2 in Appendix B, for the following: Sales patterns, rate of growth, net-income patterns, net-income margin (NEM), duration of the Valley of Death (from startup to breakeven).

<sup>8</sup> Net-Income Margin is often represented in the shape of percentage and this type of representation makes it possible to compare a wide range of business entities.

to 25%, Samsung: 5% to 10%, Starbucks: 3% to 8%, South West Airlines: 5% to 19%, Wal-Mart: 3% to 4%, Xerox: 4% to 8%. This study calculated the net income margin of the selected FBP in year 5, as ventures in their 5<sup>th</sup> year are mature enough to let us compare them with other businesses. These tables show that average Net Income Margin in the two groups of Randomly Se-

lected participants and the Winners were 24% and 33%. These data (compared with the cases presented above) seem unrealistic. As Net-Income Margin is a simple calculation based on Revenue and Cost, this conclusion implies that the patterns of growth in the shape of Short-Tail S form and patterns of income in the shape of shallow V form are also unrealistic.

Table 1. Sample of General Participants -

Name of Venture	Year Submitted	University	Sales Pattern	Rates of Growth, Times	Net-income Patterns	NEM Year 5, %	Company Survival in Months
21 Century Bike	1993	University of Georgia	Short-tail S model (hockey stick) in 5 years	90	Shallow V Shape	13	18
Career Kids	1995		Short-tail S model (hockey stick) in 5 years	44.4	Shallow V Shape	12	17.6
3D Precision	1996	Northwestern University	Linear ever-growing	11.6		23	11.3
Aim Technologies	1997		Short-tail S model (hockey stick) in 5 years	64.3	Shallow V Shape	23.7	18
Ann Richards	1998	UT Austin	Linear ever-growing	12	Shallow V Shape	40	17.4
Accessibility Review Consultants	1999	UT Austin	Short-tail S model (hockey stick) in 5 years	20	Shallow V Shape	30	13.5
Aquatic Immune Systems	2000		Short-tail S model (hockey stick) in 5 years	913	Shallow V Shape	10	31.6
Inter3D	2000	University of Wisconsin	Short-tail S model (hockey stick) in 5 years	24	Shallow V Shape	46	12.2
La Tienda	2001	Colombia	Linear - growing	4.3	Shallow V Shape	19.5	12.5
Malcom	2002	Germany	Linear - growing	16		17	30
Hydra Sure	2003		Short-tail S model (hockey stick) in 5 years	315	Shallow V Shape	14	11.3
Agovie Technology	2004	University of Pennsylvania	Short-tail S model (hockey stick) in 4 years	17.6	Shallow V Shape	18.3	
JARN	2005	Simon Fraser University	Short-tail S model (hockey stick) in 5 years	88	Shallow V Shape	27	12.4
Nudleman BP	2006		Short-tail S model (hockey stick) in 5 years	224	Shallow V Shape	42	29.5
Mullis Enterprises	2007	University of Georgia	Linear - growing	30	Shallow V Shape	24	13.2
Neuro Bank	2008	Carnegie Mellon University	Short-tail S model (hockey stick) in 5 years	224	Shallow V Shape	28.00	29.5
Tetra One	2009	University of Louisville	Short-tail S model (hockey stick) in 5 years	31			
Average				125		24	18

<sup>9</sup> Source of the data to calculate Net Income Margine: Mergent Online: <http://www.mergentonline.com/basicsearch.php>.

Table 2. Winners

Name of Venture	Year Submitted	University	Sales Pattern	Rates of Growth, Times	Net-income Patterns	NEM Year 5, %	Company Survival in Months
Salam Greeting	1991	Carnegie Melon University	Short-tail S model (hockey stick) in 5 years	46	Shallow V Shape	36	18
EASI	1992		Short-tail S model (hockey stick) in 5 years	84	Shallow V Shape	17	11
Independence Marine	1993	Northwestern University	Short-tail S model (hockey stick) in 3 years then stable	20	Shallow V Shape	50	6
Breeze Technology	1994	Bond University, Australia	Short-tail S model (hockey stick) in 4 years	4.8	Shallow V Shape	50	6
True-Dimensions	1995	UT - Austin	Short-tail S model (hockey stick) in 5 years	13	Shallow V Shape	10	18
Eco-Clear	1996	Bond University, Australia	Short-tail S model (hockey stick) in 5 years	53	Shallow V Shape	64	14
Bio-Gel	1997	UT - Austin	Short-tail S model (hockey stick) in 5 years	24	Shallow V Shape	23	7
Bio-Pet	1998	University of Georgia	Short-tail S model (hockey stick) in 5 years	6.7	Shallow V Shape	23	12
Fabrica	1999	Thammasat University, Thailand	Short-tail S model (hockey stick) in 3 years then stable	8	Shallow V Shape	40	
2MBA	2000	Bond University, Australia	Sales: Linear ever-growing	7	Net-income not defined.		6
MIS S	2001	University of North Carolina	Short-tail S model (hockey stick) in 5 years	226	Shallow V Shape	17	30
Average				45		33	13

### 5.5 Duration of the Survival Period (Valley of Death)

The duration between startup and breakeven point often is referred to as the survival stage or the Valley of Death. During this period of time the net-income of new ventures is negative. Table 1 and 2 demonstrate the duration of the Survival Period (Valley of Death) for the two groups of Randomly Selected Teams and the Winners had a survival period of 18 months and 13 months.

**Observation:** There is no bench mark to show how long the actual survival period for real life new ventures is, but based on anecdotal cases the selected FBPs seem to be too

short to be realistic. Bert Twaalfhoven, a Dutch serial entrepreneur who was a driving force in fifty start-ups between 1959 and 1999, compiled information about the surviving period of 157 companies. His study shows the average breakeven point of those companies was 30 months (Timmons et al. 2005: 83).

### 5.6 Needed Capital, (Based on Accumulated Negative Cash-flow)

Calculating needed capital is a main objective of a formal business plan to launch a new venture. This study reviewed accumulated negative cash flow (between startup and break-



even) as needed capital to set up the new venture. After a break-even point, ventures create positive cash-flow and they do not need infusion of financial resources based on capital investment. The Randomly Selected Teams, on average, requested \$1.3 million to set up their ventures. The Winners requested on average \$370,000.

We reviewed the following factors for each project in the two main groups of Randomly Selected Participants and the Winners: Needed capital based on financial tables (accumulated negative cash-flow, in \$100K); Capital from the founders (in \$100K); Capital requested from investors (in \$100K); Explicit links in text of FBP between calculated needed capital and capital requested from investors; Investors role in total capital investments; Investors share in stock and equity; and

Internal Rate of Return (IRR). Please refer to Tables 3 and 4.

**Observation:** It should be noted that none of reviewed formal business plans (in both groups of Randomly Selected Teams and the Winners) articulated the role of financial statements in regard to calculating needed capital, as noted below.

**5.7 Capital by the Founders and Capital Requested of Investors**

There are usually two main sources of capital to set up a new venture: Internal sources such as founders and external investors. The average amount of capital contributed by the founders in both groups was about \$100,000. This amount ranged from nothing to \$1 million for the Randomly Selected teams and from nothing to \$0.5 million for the Winning Teams.

Table 3. Capital – General Participants

Venture Name	Calculated Needed Capital, \$100K	Capital by Founders, \$100K	Capital Requested from Investors, \$100K	Explicit Link between Calculated Needed Capital and Capital Requested from Investors	Investors' Role in Total investments, %	Investors; share in stock / equity, %	IRR
21 Century Bike	5.5	0.6	6	No	91	30	55
Career Kids	1.97	0	2.0	No	100	20	
3D Precision	4.04	1	9	No	90	40	
Accessibility Review Consultants	0.82	0	1.2	No	100	25	
Aquatic Immune Systems	1.55	.1	5	No	98	40	
Inter3D	40	.1	106	No	99	70	
La Tienda	1.35	0	5	No	100	40	
Malcom	28	0	32		100	30	
Hydra Sure	2.1	.3	2.1		87	30	
Agovie Technology		.1	6		98	37	
JARN	17	1	40		97	10	
Mullis Enterprises	1.55	0	85		100	25	
Neuro Bank	28	10	20		67	45	99
Tetra One	2.7	.3	8.5		97	33	92
Average, General Participants	10.3	1	24.8		95	34	

Table 4. Winners

Name	Calculated Needed Capital, \$100K	Capital by Founders, \$100K	Capital Requested from Investors, \$100K	Explicit Link between Calculated Needed Capital and Capital Requested from Investors	Investors' Role in Total investments, %	Investors; share in stock / equity, %	14: IRR
Salam Greeting	Not defined	0	1.95	No	100	Not defined	
EASI	4.35	0	6.0	No	100	25	104
Independence Marine	6.27	0.63	9.0	No	93	Not defined	
Breeze Technology			1.3	No			
True-Dimensions	1.15	.3	2.0	No	89	35	
Eco-Clear	1.6	3.75	3.0	No	44	33	112
Bio-Gel	1.6	0.25	2.5	No	90	15	76
Bio-Pet	9.14	0	10	No	100	25	74
Fabrica		5.1	4.9	No	49	49	176
2MBA	4.49	1.2	15	No	92	30	93
MIS S	140.75	3.15	110	No	77		
Average, Winners	3.7	0.9	6.4		86	27	

A main goal of a FBP is to convince potential investors to invest in the venture. Tables 3 and 4 demonstrate that the Randomly Selected Teams, on average, requested \$2.48 million from investors. The Winning teams, on average, requested \$640,000 which is about a quarter of the Randomly Selected Teams. There are, however, common patterns between the two groups regarding of the ratio of Capital Requested from Founders and Investors. This ratio for the Randomly Selected Teams is 2.5 times  $((24.8 + 1) / 10.3 = 2.5)$  and the ratio for the Winning Teams groups is 2  $((6.4 + .9) / 3.6 = 2)$ . Simply

speaking, both groups ask for more than 2 times the capital that their financial tables suggest is needed.

**Observation:** None of the reviewed business plans make explicit links between two key factors: “Needed capital, based on financial tables” and “Capital requested by the investors.” Both groups of teams ask for capital from investors without justifying the amount. Lack of explicit relationships between “required capital (based on accumulated negative cash-flow)” and “requested capital from investors” is a striking observation.

Table 5. Summary

Name	Calculated Needed Capital, \$100K	Capital by Founders, \$100K	Capital Requested from Investors, \$100K	Explicit Link between 13 and 14	Investors' Role in Total investments, %	Investors; share in stock / equity, %	14: IRR
Average, General Participants	10.3	1	24.8	No	95	34	
Average, Winners	3.7	0.9	6.4	No	85.8	27.1	

### 5.8 Investors Role in Total Capital Investment and Investors Share in Stock and Equity

On one hand, the Randomly Selected Teams, on average, expect external investors to invest 95% of the total investment in the venture. The Winning Teams, on average, expect investors to invest 86% of total investment. On the other hand, the Randomly Selected Teams, on average plan to give 34% of share in stock or equity to the investors. The Winning Teams, on average, are planning to give 27% of share in stock or equity to the investors. The ratio between investors' role in investment and investors' share in equity for the Randomly Selected teams is 2.8 times. The ratio for the Winning teams is 3.1 times.

**Observation:** Randomly Randomly Selected and Winning Teams ask investors to carry the majority burden of investment, but they also want to give a minority role to the investors. The ratio of the investment's role versus equity role is about 3 times in both teams.

## 6. ANALYSIS

The data analysis is consistent with the theoretical perspectives of myth and ceremony of Formal Business Plans as well as Business Plan Competitions. Headd (2003) in "Redefining Business Success: Distinguishing between Closure and Failure" used U.S. Census Bureau data to study the patterns of growth of new ventures. He concludes that: 1) one-third of new American ventures do not survive more than two years, and 2) that half of new businesses terminate before they are four years old. The rate of new venture mortality by year five, according to Headd's study, is more than 50%. Submitted formal business plans, however, seem to ignore the high rate of new venture business mortality, as they speculate rapid rates of growth often in the shape of a Short-Tail S model and short and shallow Valley of Death. Unrealistic or mythical patterns like extreme rate of growth with short and shallow survival period lead of unrealistic net-income margins and low level of requested financial capital.

The financial statements of FBPs are formalized according to Generally Accepted Accounting Principles (GAAP) such as: 1) the historical cost principle; 2) the revenue recognition principle requiring companies to record when revenues are actually realized; 3) the matching principle where expenses have to be matched with revenues; and 4) the full disclosure

principle. GAAP principles are based on rationally-based procedures supporting formalized accounting statements. However, they are most applicable to past transactions or when there is strong evidence that they can be projected into the future. In short, the financial sections of formal business plans use accounting procedures which are inherently past-oriented and historical

In spite of the challenges in predicting sales performance of a new venture, the majority of the teams (both Randomly Selected and Winning Teams) envision a Short-Tail S model of growth, known as the Hockey Stick Pattern, which is more like a desired myth, than a realistic goal.

The FBPs of the Randomly Selected and Winning teams decoupled the calculated amount of needed capital (accumulated negative cash-flow) and the capital they requested. The submitted business plans, requested financial capital about two times more than financial tables (accumulated negative cash-flow) suggest was needed. The lack of connectivity between the investors' role in total capital investments and investors' share in stock and equity is another loose coupling of the submitted FBPs. On average the teams are willing to grant investors share in stock and equity at only one third of their role in capital investment, often without justifying this request. In short, the investors, who will carry the burden of investment, be given a minority role in the board structure.

In short, submitted business plans expectations, such as hockey stick growth, short survival period are made to gain requested resources such as business investment and to win the BP competition by enhancing their survival prospects. This observation is consistent with Myth and Ceremony theory, which suggests that "organizations whose structure becomes isomorphic (having similar forms) with the myths of the institutional environment decrease internal coordination and control in order to maintain legitimacy."

## 7. ACTION BUSINESS PLANNING

We suggest that "Action Business Planning (ABP) as an alternative to Formal Business Plans. ABPs are designed to more realistically articulate the process of business planning. The main characteristic of ABP involves non-linear and complex interactions among Variable Factors, Structural Factors, and Unknown Factors. Variable factors are those over which entrepreneurs have some control. Structural factors are those

that entrepreneurs must address, but over which they have limited control, such as government rules and industrial norms (both explicit and implicit). With ABP entrepreneurs need to articulate their understanding and recognition of variable and structural factors that are applicable to their venture and the interactions among these factors. Unknown factors are those that the entrepreneur does not know about or cannot speculate, but it does not mean that these factors do not exist or could have negative or positive impacts on the venture.

### 7.1 The Business Lifespan Model: An Alternative to the S Model

This paper proposes the Business Lifespan Model (Mahdjoubi 2004) for enterprise development as an alternative to the S Model normally proposed in Formal Business Plans. Similar to the S Model the Business Lifespan Model uses the analogy of lifecycle to explicate the process of venture development. However, unlike the S Model, that uses revenue as a surrogate for development, the Business Lifespan Model uses Net Income as a surrogate for development. Net Income is equal to the income that a firm has after subtracting costs and expenses

from the total revenue.

The Business Lifespan Model covers some common patterns of development in the S Model as well as complex and chaotic transition periods between in the following main stages: 1) Ideation, 2) Survival, 3) Growth, 4) Turbulence (Crisis), 5) Expansion, 6) Sustain, 7) Renewal, and 8) Termination (<Fig. 1>).

The dividing line between stages is at best fuzzy and the timeline during which a new venture remains in a particular stage varies widely among ventures and technologies. Yet, the relative stage of evolution strongly influences the behavior and pattern of enterprises in many aspects from technology development to financial capital requirements. The Business Lifespan Model is not a linear predestination, but rather depicts major commonalities among ventures, and it needs rigorous study for further elaboration. The model does not advocate a one-size-fits-all approach that is applicable to all ventures, as organizations are seen to have unique patterns. The Business Lifespan Model, rather, intends to explicate the main characteristic of key stages of venture development that may vary from organization to organization.

**Ideation** covers the period from the initial idea of a new

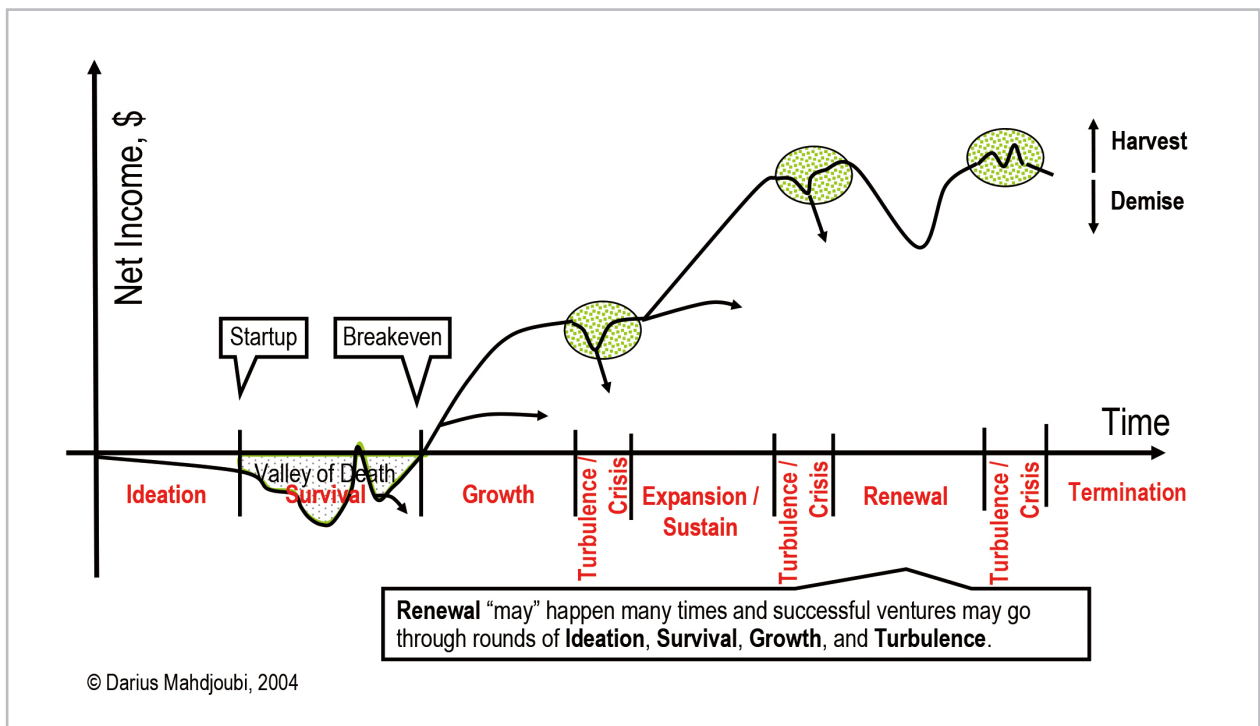


Fig. 1. The Main Stages in the Business Lifespan Model

venture to its actual launch. During the Ideation stage founders have the greatest freedom to think about the new organization. But the founders also must realize that the moment they cross the startup threshold and enter the following stage hard realities will govern the firm's survival.

**Survival Stage (Valley of Death)** covers the period when the startup works to attain a break-even point where the new venture attains a positive cash flow. Survival is the ability to sustain a new venture with a negative Net Income to reach the breakeven point. This stage is called the Valley of Death due to the high mortality rate among new ventures during the Survival Stage.

**Growth** covers the stage after the venture crosses the Valley of Death and is able to attain a sustainable break-even point. Such ventures may continue into two distinctive paths: 1) Slow Growth and 2) Fast Growth. Slow growth ventures may grow from cash flow to become large firms over time or they may become small life-style businesses. Fast Growth businesses tend to rely on a major capital infusion from VCs or another funding source. Management texts and Formal Business Plans usually concentrate on Fast Growth ventures, but clearly they are not the only alternative of successful venture development.

**Turbulence (Crisis):** The transition from one stage to the next often does not happen as smoothly as the S Model depicts. Due to the complexities of real life and non-predictable events, the transition between stages, even sometimes the evolution within each stage, occurs in a non-linear manner and often with turbulent change. Such turbulence may trigger further development or alternatively it may lead to a venture's demise. Kozmetsky and Yue (2002:73) describe the complex characteristics of the turbulence stage as an inflection point:

*... inflection points may trigger explosive growth or they may lead to demise. For established companies, the strategic inflection point will generate opportunities to rise to new heights as well as risks to fall to the ground. For emerged companies the strategic inflection point will offer opportunities for growing quickly as well as risks of being wiped out completely. The strategic inflection point represents a time period of confusion in a chaotic environment.*

**Sustain:** Some businesses, after their early growth stage do not grow any more. During this stage (also called stagnation) stabilizing the venture becomes the main challenge.

**Renewal:** Some firms are able to rejuvenate and renovate themselves to grow and expand further. Renewal is a key for large and mature enterprises like Renewal may happen many times and it allows mature ventures to sustain for centuries, like Royal Dutch/Shell Group, I.B.M., G.E., and The Hudson Bay Company. *The Living Company* (De Gues 1997) argues that average life expectancy of a multinational corporation—Fortune 500 or its equivalent—is between 40 and 50 years. De Gues (1997) then cite that there are very few companies that are old and flourishing. Stora, a Swedish company, for example is more than 700 years old. The Japanese Sumitomo Group has its origin in the year 1590.

**Business Expansion** often happens through increasing the scope of the original product into new products for a wider range of consumers and/or introducing the same product in new markets. Expansion may happen through natural growth of a venture or through acquisition and merger.

**Termination** happens in the shape of absorption by another businesses or demise of the enterprise. Termination may happen during any of the stages described especially in the Survival stage during the Valley of Death. Ventures are subject to extinction in every stage of their development, but termination is a specific stage that happens when ventures are not able to successfully pass a major Turbulence Stage.

The Business Lifespan Model is a modular mathematical model, in the context that it includes a set of business mathematical modules. Net Income records are mathematic “real numbers”, and they can be broken into modules of increasing (growth/expansion), decreasing (crisis) and flat (sustain). It is possible to further study the validity and scope of this model with case method. A major development of the new Business Lifespan model is its ability to demonstrate the shortcomings of the S model for business development, as a default model for business development. The S model concentrates on the increasing patterns of sales / revenue and it has rarely happened. This model does not claim that all businesses go through the stages of business development exactly as they are sequenced in this model, rather the patterns of business development can be categorized based on the same modules that can be repeated more than one time.

## 8. SCOPE AND LIMITATIONS OF THE STUDY

This study had access to 382 FBPs submitted to the Moot

Corp Business Plan Competition. The number of FBPs for each year in this database varied widely and in 2 years was limited to the winning business plans. To facilitate, data comparability, one researcher was responsible for the in-depth reviews of the Randomly Selected and Winning Business Plans. Further study of a larger sample of FBPs analyzed by additional researchers is needed to generalize the tentative conclusions offered in this research.

## APPENDIX: LIST OF PARTICIPATING UNIVERSITIES

### A. US Universities

Purdue University, Harvard University, Carnegie Mellon University, University of Michigan, University of Pennsylvania, UT-Austin, Stanford University, Northwestern University, UCLA, New York University, University of Arizona, University of Georgia, University of North Carolina at Chapel Hill, Babson College, Duke University, Portland State University, San Diego State University, Yale University, Arizona State University, Dartmouth University, MIT, University of Oregon, Indiana University, University of Illinois at Chicago, University of Louisville, University of Michigan at Ann Arbor, University of Wisconsin.

### B. Universities from other countries

Bond University (Australia), Ecole Superior de Commerce de Lyon (France), London Business School (UK), York University (Canada), London Business School (UK), University of British Columbia (Canada), Fundacao Getulio Vargas (Brazil), Chinese University of Hong Kong, Instituto Superior Tecnológico Del Pacifico Sur (Peru), Escolar de Administracao de Empresas de Sao Paulo (Brazil), Escuela Administracion de Negocios para Graduados (Peru), Koblenz School of Corporate Management (Germany), McGill University (Canada), University of Oxford (UK), Instituto Tecnológico y de Estudios Superiores de Monterrey (Mexico), Thammasat University (Thailand), Fudan University (China) Fundacao Getulio Vargas (Brazil) Queensland University of Technology (Australia), Wissenschaftliche Hochschule für Unternehmensführung (Germany), Helsinki School of Economics (Finland), Chulalongkorn University (Thailand), Saint Mary's University, University of Witwatersrand (South Africa), Swinburn University of Technology (Australia), University of Western Ontario (Can-

ada), Universidad de los Andes (Colombia), WHU (Germany), James Cook University (Australia), ESAN (Peru), E.M. Lyon (France).

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