



# Strategic Organizational Development and Growing Pains: Empirical Evidence from Europe

**Eric G. Flamholtz<sup>1</sup>**

*Anderson School of Management, UCLA and Management Systems Consulting Corporation, USA*

**Dariusz Brzezinski<sup>2</sup>**

*APAX Consulting Group Sp., Poland*

**Abstract.** Previous work by Flamholtz et al. empirically assesses the validity of a model of organizational success and failure. However with the exception of one study in China, previous research was only conducted on individual organizations in the USA. In this paper regression analysis on data from a sample of 683 European companies headquartered in Poland indicates a statistically significant inverse relationship between the development of six critical organizational development factors and overall growing pains. The results provide additional evidence that organizational development affects growing pains, which are known, in turn, to negatively affect financial results. The results also provide initial evidence of the generalizability of the model.

**Keywords:** strategic organizational development, stages of growth developmental gap, growing pains, pyramid of organizational development.

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

**Acknowledgements:** The research presented in this article was the result of a joint effort of the authors and the Polish Agency for Enterprise Development (known as “PARP”). The study could not have been conducted without the involvement of PARP, which was a sponsor and arranged for the sample of participating companies. The authors also acknowledge Ms. Mona Wen, mathematics student at UCLA, for performing the statistical calculations. The authors also acknowledge Mr. Omar Aguilera of Management Systems and Mr. Pawel Rudnik of Apax for assistance in data collection. The authors are also pleased to acknowledge two anonymous referees who invested considerable time and made constructive suggestions for improvement. We also specifically acknowledge Professor Andre van Stel (Trinity College, Dublin), one of these reviewers, who made substantive contributions to the both the statistical analysis and proposed edits. We consider his contributions to be worthy of co-authorship.

- 
1. Anderson School of Management, UCLA, 110 Westwood Plaza, Los Angeles, CA 90024, United States, Email: [eric.g.flamholtz@anderson.ucla.edu](mailto:eric.g.flamholtz@anderson.ucla.edu), Phone: (310) 825-4956, and President, Management Systems Consulting Corporation, 10940 Wilshire Boulevard, Suite 600, Los Angeles, California 90024, USA, Phone 310-477-0444, E-mail: [EF@mgtsystems.com](mailto:EF@mgtsystems.com)
  2. Managing Partner, APAX Consulting Group Sp. z o.o., ul. Chmielna 19, 00-021 Warszawa, Poland, Phone +48 22 244 20 50, E-mail: [Dariusz.Brzezinski@apax.pl](mailto:Dariusz.Brzezinski@apax.pl)

## 1. Introduction

Flamholtz (1995) has proposed a six-factor framework to understand and plan the successful growth of firms at different stages of growth as well as to explain organizational success and failure. The framework has subsequently been elaborated further and used to discuss case histories of success and failure of a wide variety of organizations (Flamholtz and Randle, 1998), especially entrepreneurs (Burke, 2006)<sup>3</sup>.

In other previous research, Flamholtz *et. al.* have provided some preliminary empirical evidence of the hypothesized relationship between the proposed organizational success model, growing pains and financial performance (Flamholtz and Aksehirli, 2000; Flamholtz and Hua, 2002; Flamholtz and Kurland, 2005). In addition, Flamholtz and Kannan-Narasimhan (2013) have examined the relationship between organizational development and the existence of what was termed a “leadership molecule” (Flamholtz, 2011). However, all of the previous empirical research (with the exception of one study in China by Flamholtz and Kannan-Narasimhan, 2013) has been conducted in organizations located in the United States of America (USA).

This current research builds upon and extends the previous research. It provides additional empirical evidence of the hypothesized inverse relationship between the organizational development model and growing pains in a *European* context. Specifically we report the results of a test of a hypothesized inverse relationship between the organizational development model and growing pains in 683 companies headquartered in Poland.

The next section provides a review of the key aspects of the framework relevant to this research. The third section will explain the research hypothesis and research design used in the empirical assessment of the framework. That section also includes a description of the companies used to test the framework. Results of the test are presented in section four. Finally, the conclusions of the analysis and the implications of these conclusions for management and researchers will be considered in the final section.

## 2. The Theoretical Framework

The theoretical framework underlying this article was previously presented by Flamholtz (1995) and is reviewed briefly below. A more extensive discussion can be found in Flamholtz (1995) or Flamholtz and Randle (1998).

---

3. In this context we mean a true entrepreneurial firm, not a small firm; because many entrepreneurial firms are quite large such as Starbucks, Amazon, and Huawei. For further discussion of entrepreneurship, see Burke (2006).

## 2.1. Key Developmental Tasks for Successful Organizations

The initial premise or hypothesis underlying this framework is that organizations must perform certain tasks to be successful at each stage of their growth. The six key tasks or dimensions, all of which have been supported by previous research, are:

- Identification and definition of a viable market niche (Aldrich, 1979; Brittain and Freeman, 1980; Freeman and Hannan, 1983),
- Development of products or services for the chosen market niche (Burns & Stalker, 1961; Midgley, 1981),
- Acquisition and development of resources required to operate the firm (Pfeffer & Salancik, 1978; Brittain & Freeman, 1980; Carroll & Yangchung, 1986),
- Development of day-to-day operational systems (Starbuck, 1965),
- Development of the management systems necessary for the long-term functioning of the organization (Child & Keiser, 1981; Tushman et al., 1985),
- Development of the organizational culture that management feels necessary to guide the firm (Peters & Waterman, 1982; Walton, 1986).

A second premise or hypotheses is that each of these tasks must be performed in a stepwise fashion in order to build a successful organization, and, taken together, they comprise six “key strategic building blocks” of successful organizations (Flamholtz, 1995; Flamholtz and Randle, 2016). Each of these key tasks or strategic building blocks will be discussed in detail below.

## 2.2. Identification of Market Segment and Niche

The first challenge for a new venture in organizational survival or success is to identify a market need for a marketable service or product. The chances of organizational success are enhanced to the extent that the firm is successful in this step (Flamholtz, 1995).

The challenge is not merely in identifying the market but also, if possible, to capture a “market niche,” a relatively protected place that would give the company sustainable competitive advantages. Failing to define a niche or mistakenly abandoning the historical niche can cause an organization to

experience difficulties and even failure. The process of identifying the market involves the development of a strategic market plan to identify potential customers and their needs and the creation of a competitive strategy (Flamholtz, 1995).

### 2.3. Development of Products and Services

The second challenge or strategic building block involves the development of products and/or services. This process can also be called “productization,” which refers to the process of analyzing the needs of customers in the target market, designing the product and developing the ability to produce it (Flamholtz, & Randle, 2016). For a production firm this stage involves the design and manufacturing phases, whereas for a service firm, this stage involves forming a system for providing services to the customers (Flamholtz & Randle, 2016).

The success at this stage is highly related to the previous critical task, proper definition of the market niche (Flamholtz, 1995). Unless a firm fully understands the needs of the market, it cannot satisfy those needs in “productization”.

### 2.4. Acquiring Resources

Success in identifying a market niche and productization will create increased demand for a firm’s products or services. Consequently, the resources of the firm will be spread very thin (Flamholtz, 1995). The organization will require additional physical, financial and human resources. This is the point at which the entrepreneurs should start thinking about the long-term vitality of the firm and procure all the necessary resources to survive the pressure of current and future increase in demands (Flamholtz & Randle, 2016).

### 2.5. Development of Operational Systems

The fourth critical task is the development of basic day-to-day operational systems, which include accounting, billing, collection, advertising, personnel recruiting and training, sales, production, delivery and related systems (Flamholtz, 1995). Entrepreneurial companies tend to quickly outgrow the administrative systems available to operate them. Therefore, it is necessary to develop sufficient operational systems, on time, to build a successful organization. In contrast, large established companies might have developed overly complicated operational systems. In this case, the success of the organization depends on the reengineering of operational systems (Flamholtz, 1995).

## 2.6. Development of Management Systems

The fifth step is to develop the management systems, which is essential for the long-term viability of the firm (Flamholtz & Randle, 2016). Management systems include systems for planning, organization, management development and control. Planning systems involve planning for the overall development of the organization and the development of scheduling and budgeting operations. It includes strategic planning, operational planning and contingency planning (Flamholtz, 1995). The mere existence of planning activities does not indicate that the firm has a planning system. A planning system ensures that planning activities are strategic and ongoing.

Organizational structure involves the ways in which people are organized and activities are coordinated. As with the planning activities, success depends not on the mere existence of a structure but on the match between the structure and business strategy (Flamholtz, 1995).

The process of planned development of the current and future managers is a Management Development System. Control systems are the set of processes (budgeting, goal setting) and mechanisms (performance appraisal) that would encourage behavior that would help achieving organizational objectives (Flamholtz, 1995).

## 2.7. Developing Corporate Culture

Just as people have personalities, organizations have cultures, which are composed of shared values, beliefs and norms. Shared values refer to the importance the organization attaches to the aspects of product quality, customer service, and treatment of employees. Beliefs are the ideas that the people in the organization hold about themselves and the firm. Lastly, the norms are the unwritten rules that guide interactions and behavior (Flamholtz, 1995).

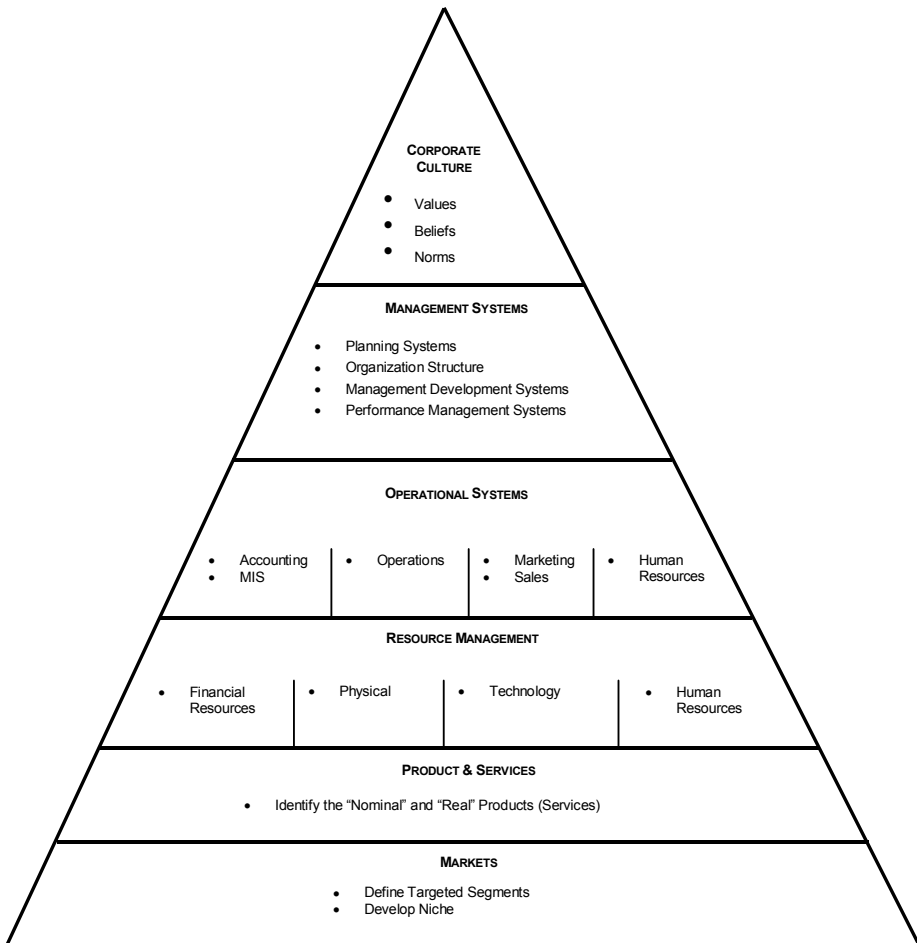
## 2.8. The Model as a Whole

Taken together, these six tasks or strategic building blocks lead to a hierarchical model of organizational development, as seen in Exhibit 1.

It should be noted that the pyramid shape does not imply that the key tasks are carried out independently. All six tasks are vital for the health of the firm, and must occur simultaneously. However, the relative emphasis on each task or level of the Pyramid will vary according the organization's stage of growth (Flamholtz, 1995). The top four levels of the Pyramid form the "infrastructure" of the firm. Generally, however, although competition between firms takes place at all levels, long-term sustainable advantage is primarily found at the top three levels,

because there are the least susceptible to are less susceptible to imitation (Flamholtz, 1995), and, accordingly, provide the basis for long term sustainable competitive advantage.

EXHIBIT 1<sup>4</sup>: PYRAMID OF ORGANIZATIONAL DEVELOPMENT: THE SIX KEY BUILDING BLOCKS OF SUCCESSFUL ORGANIZATIONS



### 3. Developmental Emphasis at Different Stages of Growth

The emphasis that should be given to each task differs depending on the size of the firm. Organizations experience developmental problems if their infrastructure is not consistent with their size. The parallel relationship with size and

4. Source: (Flamholtz and Randle, 2016, p. 28)

organizational structure leads to an organizational life cycle model that complements the Organizational Development Pyramid (Flamholtz, 1995), as shown in Exhibit 2.

EXHIBIT 2: STAGES OF GROWTH<sup>5</sup>

Stage	Description	Critical Development Areas	Approximate Organizational Size (in sales)*	
			Manufacturing Firms	Service Firms
I.	New venture	Markets and products	Less than \$1 million	Less than \$0.3 million
II.	Expansion	Resources and operational systems	\$1 - \$10 million	\$0.3 - \$3.3 million
III.	Professionalization	Management systems	\$10 - \$100 million	\$3.3 - \$33 million
IV.	Consolidation	Corporate culture	\$100 - \$500 million	\$33 - \$167 million
V.	Diversification	Markets and products	\$500 - \$1 billion	\$167 - \$333 million
VI.	Integration	Resources, operational systems, Management systems, Corporate culture	\$1 billion +	\$333 million +
VII.	Decline-Revitalization	All variables in Pyramid	Varies	Varies

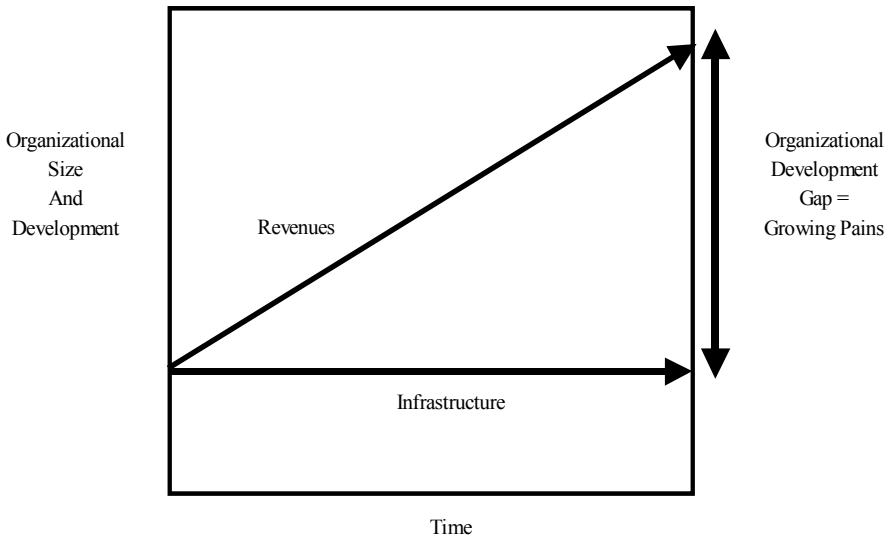
\* U.S. Dollars

As seen in Exhibit 2, each stage of growth is viewed as having a set of critical developmental tasks. For example, the critical tasks at Stage I (the start-up of an entrepreneurial new venture) are markets and products, while at Stage III the critical task is the development of management systems.

#### 4. Developmental Gaps Cause “Growing Pains”

Another notion of the theoretical framework is that when the top four levels of the Pyramid, which form the “infrastructure” of the firm, is not developed sufficiently as required by the given stage of growth, there will be an “organizational development gap,” or gap between the level of the infrastructure required by the enterprise and its actual infrastructure. This is shown graphically in Exhibit 3.

5. Source: (Flamholtz and Randle, 1998, p. 31)

EXHIBIT 3: ORGANIZATIONAL DEVELOPMENT GAP<sup>6</sup>

This developmental gap causes the enterprise to experience “growing pains,” which are symptoms of organizational distress experienced by entrepreneurial firms. A set of ten classic growing pains have been identified by previous research (Flamholtz and Randle, 2016) and experience. They are shown in Exhibit 4.

EXHIBIT 4: TEN CLASSIC GROWING PAINS<sup>7</sup>

1. People feel that “there are not enough hours in the day.”
2. People spend too much time “putting out fires.”
3. People are not aware of what other people are doing.
4. People lack understanding about where the firm is headed.
5. There are too few good managers.
6. People feel that “I have to do it myself if I want to get it done correctly.”
7. Most people feel that “our meetings are a waste of time.”
8. When plans are made, there is very little follow-up, so things just don’t get done.
9. Some people feel insecure about their place in the firm.
10. The organization continues to grow in sales but not in profits.

Growing pains are not only problems in themselves; they are symptoms of organizational distress. Growing pains indicate that the “infrastructure” of an enterprise (i.e., the internal operational and management systems it needs at a given stage of growth) has not kept up with its size, as measured by its revenues.

6. Source: (Flamholtz and Randle, 2016, p. 63)

7. Source: (Flamholtz and Randle, 2016, p. 94)



For example, a business with \$200 million in revenues may only have an infrastructure to support the operations of a firm with \$50 million in revenues, or one-fourth its size. This type of situation typically occurs after a period of growth, sometimes quite rapid growth, where the infrastructure has not been changed to adjust to the new size and complexity of the organization. The result, as shown in Exhibit 3, is an “organizational development gap,” (that is, a gap between the organization’s actual infrastructure and that required at its current size or stage of development) which produces the growing pains.

Growing pains are an indication of organizational risk, including the risk of failure. Previous research (Flamholtz and Randle, 2016) has led to a formulation of levels of growing pains associated with different degrees of organizational risk, as shown in Exhibit 5. Specifically, Exhibit 5 shows five different levels of severity of growing pains from a very health organization to one that is at grave risk of failure. As seen in Exhibit 5, the different degrees of seriousness of different growing pains scores are indicated both numerically by score ranges and by a color coding scheme.

EXHIBIT 5: ORGANIZATIONAL GROWING PAINS SCORES AND ASSOCIATED RISK LEVELS<sup>8</sup>

LEVEL	SCORE RANGE	COLOR CODE	INTERPRETATION
1.	10–14	Green	Everything OK
2.	15–19	Yellow	Some things to watch
3.	20–29	Orange	Some areas that need attention
4.	30–39	Red	Some very significant problems
5.	40–50	Purple	A potential crisis or turnaround situation

Exhibit 5 shows five different levels of severity of growing pains from a very healthy (green) organization to one that is at grave risk of failure (purple).

### 5. Implications of the Theoretical Framework.

The theoretical framework presented above has a number of implications for management and research. These are presented below:

1. The six key strategic building blocks or tasks of organizational development are hypothesized to influence or explain overall organizational success. This means that the six key variables are

---

8. Source: (Flamholtz and Randle, 2016, p. 102)

expected to have an impact on the financial performance or “so-called bottom line” of organizations.

2. The six key variables are expected to “work together” to explain overall organizational success. Although the six variables have all been identified in the research literature as significant factors in organizational success, the holistic pyramid model is based upon the notion that (to achieve optimal performance) they all must be designed as a whole. This means that they are hypothesized to have more impact as a whole than individually.
3. Each of the six key variables is hypothesized to be more important at different stages of growth: markets and products at Stage I, resources and operational systems at Stage II, management systems at Stage III, and culture at Stage IV.
4. When the six key variables are *not* developed sufficiently for the required stage of growth, an organizational development gap is created which will result in “growing pains.” These growing pains are an indication of the degree of risk facing an organization.

Each of the implications stated above can be viewed as a hypothesis for empirical testing.

## 6. Focus of Current Research

The primary focus of the current research is on implication/hypothesis #4. This concerns the relationship between 1) the extent to which the six key variables comprising the Pyramid of Organizational Development have been developed sufficiently for a given size or stage of growth and 2) the resulting degree of growing pains experienced by the organization. Drawing upon the theoretical model presented above, the hypotheses posits an inverse relationship between the degree of organizational development and growing pains. Specifically, the greater the degree of organizational development, the lower growing pains.

As noted at the outset, this hypothesis has been tested previously (Flamholtz and Hua, 2002), and that data supports the hypothesized inverse relationship between these variables. However, there were two primary limitations to the previous research. First, the research was based upon data within a single firm rather than a number of firms. Second, the data was from a business enterprise in the USA, and therefore the generalizability of the findings to European companies is an open question.

The current research is designed to deal with both of these limitations of previous research. It involved a large sample of 683 firms and was done in a European context (in Poland).

## 7. Research Design

This section describes the overall research design, outlines the research hypotheses, explains the data collection procedure, and discusses the measurement or operationalization of the variables. A description of the research sample and a discussion of statistical methods are also included in this section.

### 7.1. Research Hypothesis

Drawing on the framework described above, the present study involves an empirical examination of the relationship between strength on the six critical tasks of the organizational development pyramid and the growing pains experienced by the organization.

The following hypothesis is used to assess this:

**H1:** The degree of development of six key tasks/variables of the organizational development pyramid framework is *inversely* related to the degree of growing pains experienced by the enterprise.

### 7.2. Research Strategy

This study was conducted as part of a joint research project between the two authors' private organizational development firms (Management Systems Consulting Corporation, USA and Apax, Poland) and the Polish Agency for Enterprise Development known as "PARP".<sup>9</sup>

Both of the authors' and their firms' focus is on organizational development, especially for rapidly growing entrepreneurial companies, such as those in Poland, which is currently one of the areas of the global economy experiencing rapid development and growth.

---

9. Eric Flamholtz is the owner and President of Management Systems Consulting Corporation (Los Angeles, USA; Dariusz Brzezinski is the owner and CEO of Apax (Warsaw, Poland). Apax is a licensed affiliate of Management Systems Consulting Corporation, and a part of the Management Systems Group of Global Affiliates.

### 7.3. Research Sample

Participants in the research were CEOs of companies headquartered in Poland who were contacted by PARP and voluntarily agreed to participate in the study. We originally sought a robust sample of 500 participating companies.

The potential companies were contacted by PARP and offered the opportunity to participate in the research study. All potential participants were told that they would receive a copy of the findings as well as their company's scores. There were actually 683 voluntary participants in this research study, exceeding the goal of 500 participants.

Frequency distributions for the sample firms in terms of company age, revenue range and company size are presented in Appendices A-C, respectively.

### 7.4. Measurement of Variables

Two key variables were measured as part of this research for each participating firm: 1) the degree of development of the variables comprising the Pyramid of Organizational Development, and 2) growing pains.

Both of these variables were measured using previously existing validated surveys. The first variable was measured using "The Management Systems Survey of Organizational Effectiveness," and the second using "The Management Systems Growing Pains Survey" (Flamholtz and Randle, 2016). Both of these surveys use a classic Likert Scale.

Specifically, the CEOs of each participating company were asked to rate their own company on each of the six key strategic building blocks (markets, products, etc.) plus financial results management using a five-point Likert scale. The results of this assessment were used to construct a "strategic development score" for each company. The "strategic development score" is an average over the seven items, the six key strategic building blocks plus financial results management. The scores range from 1.0 to 5.0 where 1.0 is the lowest possible (unfavorable) score and 5.0 is the highest possible (favorable) score.

To measure growing pains, the CEOs of each participating company were asked to rate their own company on each of the ten growing pains shown in Exhibit 4 using a five-point Likert scale. The overall Growing Pains score is the sum of the scores of each of the ten items. The scores range from 10 to 50 where 10 is the lowest possible score (favorable) and 50 is the highest possible score (unfavorable).

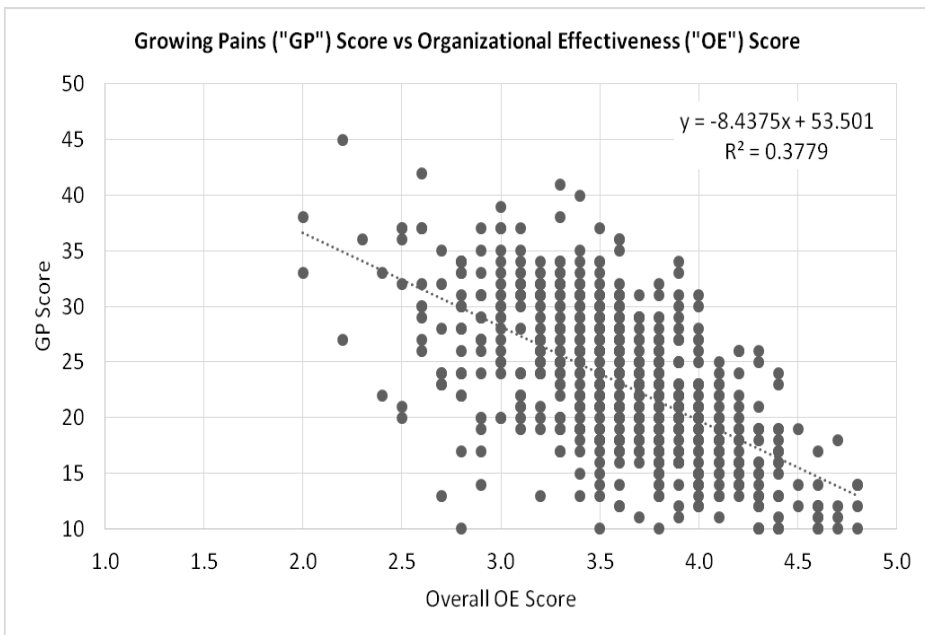
### 7.5. Statistical Analysis

To test the relationship between the degree of organizational development and growing pains, we will use an ordinary least squares (“OLS”) regression between: 1) the degree to which the company was developed in terms of the six key strategic building blocks as a whole plus financial results management (i.e., “the strategic development score”) and 2) the “growing pains” score. Stated differently, the hypothesis is that the higher “the strategic development score,” the lower the growing pains.

## 8. Results

The result of our OLS regression is shown as a graph in Exhibit 6. The x-axis shows the strategic development scores or “degree of strategic organizational development.” The y-axis shows the “growing pains scores” of the companies included in the sample.

EXHIBIT 6: DEGREE OF STRATEGIC ORGANIZATIONAL DEVELOPMENT AND GROWING PAINS



The scores of the sample of 683 companies showing the relationship between the strategic development scores and the related growing pains scores are shown in Exhibit 6. The specification of the regression equation describing the

relationship among variables in Exhibit 6 is:  $y = -8.4375x + 53.501$ . Adjusted  $R^2$  is 0.38, and the regression is statistically significant at 0.0001.<sup>10</sup> This means that 38% of growing pains are explained by the six variables comprising the Pyramid of Organizational Development plus financial results management. The high level of statistical significance indicates a strong statistical association between our two variables of interest.

This result provides support for the hypothesis of an inverse relationship between the degree of strategic organizational development and the growing pains of organizations.

## 9. Implications, Future Research, and Conclusion

The data derived from this study provide further empirical support for the proposed model of strategic organizational development. The result indicates that, as predicted, the greater the degree of strategic organizational development, the lower are growing pains. Stated differently, when the key variables comprising the Pyramid are *not* developed sufficiently for the required stage of growth, an organizational development gap is created which will result in “growing pains” (Flamholtz, 1995, and Flamholtz and Randle, 2016). Previous research has already indicated that *higher* growing pains are associated with *lower* financial performance (Flamholtz and Hua, 2002).

This has important implications for management theory and practice. It is one thing to assert that organizational development is a significant factor of organizational success and quite another to be able to demonstrate that the effective management of these variables can enhance profitability.

### 9.1. Implications for Management

We believe that managers can benefit from using the Pyramid of Organizational Development framework as a “lens” for planning the strategic development of organizations. This means that it can be used in strategic planning as a focus for strategic organizational development. This is supported by the principal research findings from this study as well as from prior research (Flamholtz and Aksehirli, 2000; Flamholtz and Hua, 2002; Flamholtz and Kurland, 2005). Specifically, we have shown that growing pains are inversely related to the degree of organizational development. We also know from prior research that growing pains are negatively related to financial results (Flamholtz and Aksehirli, 2000; Flamholtz and Hua, 2002). Accordingly, management should take action to assess

---

10. The authors acknowledge the research assistance of Ms. Mona Wen, mathematics student at UCLA, for performing the statistical calculations and preparing Exhibit 6.

the degree of organizational development and strengthen the variables comprising the organization's infrastructure (Flamholtz and Randle, 2016).

## 9.2. Future Research

From an academic perspective, the results reported here are promising. It would be valuable for future research to replicate the current study in other countries in Europe and well as in other parts of the world in order to continue to assess the model's generalizability. Specifically, additional research would be valuable involving a replication of the test of the principal hypothesis concerning the relationship between the pyramid and growing pains.

Another area for future research concerns the degree of development of the Pyramid model at the various stages of growth. This study was *not* designed to test the stages of growth model, described in Exhibit 2 in US dollars.

## 9.3. Conclusion

This research has provided a relatively rare opportunity to assess the impact of organizational development on growing pains in the context of a sample of European companies. The study would not have been feasible without the participation and cooperation of the Polish Agency for Enterprise Development, who not only sponsored the study but also arranged for the sample of participating companies. The results provide additional empirical support for previous theoretical and empirical work on the six-factor model of organizational success. They also provide initial evidence of the generalizability of the model not just in US but also in a European nation.

While the results are not completely definitive, they do provide additional statistically significant evidence of the impact of organizational development on growing pains, which are known, in turn, to affect financial results. The research also points the way to additional future research.

## References:

- Aldrich, I. (1979), "Organizational passages: Diagnosing and treating lifecycle problems in organizations", *Organizational Dynamics*, 8(1): p 3-25.
- Brittain, J.W. and Freeman, J. (1980), "Organizational Proliferation and Density-dependent Selection", in J.R. Kimberly, R.H. Miles and Associates (eds), *The Organizational Life Cycle Issues in the Creation, Transformation, and Decline of Organizations*, p 291-338, San Francisco: Jossey-Bass.
- Burke, A.E. (2006), "Modern Perspectives on Entrepreneurship: Introduction," in Burke, A.E. (ed) *Modern Perspectives on Entrepreneurship*, Senate Hall Academic Publishing Ltd.
- Burns, T. and Stalker, G.M. (1961), *The Management of Innovation*, London: Tavistock.
- Carroll, G.R. and Yangchung, P.H. (1986), "Organizational Task and Institutional Environments in Ecological Perspective: Findings from the Local Newspaper Industry", *American Journal of Sociology*, 91(4): p 838-873.
- Child, J. and Keiser, A. (1981), "Development of organizations over time", in P.C. Nystrom and W.H. Starbuck (eds), *Handbook of Organizations: Adapting Organizations to Their Environments*, p 28-64, New York: Oxford University Press.
- Flamholtz, E. (1995), "Managing organizational transitions: implications for corporate and human resource management", *European Management Journal*, 13(1): p 39-51.
- Flamholtz, E. (2011), "The Leadership Molecule Hypothesis: Implications for Entrepreneurial Organizations", *International Review of Entrepreneurship*, 9(3): p 1-23.
- Flamholtz, E. and Aksehirl, Z. (2000), "Organizational Success and Failure, an Empirical Test of a Holistic Model", *European Management Journal*, 18(5): p 488-498.
- Flamholtz, E. and Hua, W. (2002), "Strategic Organizational Development, Growing Pains and Corporate Financial Performance: An Empirical Test", *European Management Journal*, 20 (5): p 527-536.
- Flamholtz E. and Kannan-Narasimhan, R. (2013), "Examining the Leadership Molecule: An Empirical Study of Key Leadership Roles in Rapidly Growing Entrepreneurial Businesses", *International Review of Entrepreneurship*, 11(2): p 1-22.
- Flamholtz, E. and Kurland, S. (2005), "Strategic Organizational Development, Infrastructure and Financial Performance: An Empirical Test", *International Journal of Entrepreneurial Education*, 3(2): p 117-142.
- Flamholtz, E. and Randle, Y. (2016), *Growing Pains: Building Sustainably Successful Organizations* (Fifth ed.), Hoboken, New Jersey: Wiley.
- Flamholtz, E. and Randle, Y. (1998), *Changing the Game: Organizational Transformations of the First, Second, and Third Kinds*. New York: Oxford University Press.
- Freeman J. and Hannan, M.T. (1983), "Niche Width and the Dynamics of Organizational Populations", *American Journal of Sociology*, 88(6): p 1116-1145.
- Midgley, D.F. (1981), "Toward a Theory of the Product Life Cycle: Explaining Diversity", *Journal of Marketing*, 45(4): p 109-115.
- Peters, T.J. and Waterman, R.H. (1982), *In Search of Excellence*, New York: Harper & Row.
- Pfeffer, J. and Salancik, G.R. (1978), *The External Control of Organizations: A Resource Dependence Perspective*, New York: Harper & Row.
- Starbuck, W. (1965), "Organizational Growth and Development", in J.G. March (ed) *Handbook of Organizations*, p 451-533, Chicago: Rand McNally.
- Tushman, M.L., Virany, B. and Romanelli, E. (1985), "Executive succession, strategic reorientation, and organization evolution: The minicomputer industry as a case in point", *Technology in Society*, 7(2-3): p 297-313.
- Walton, R.E. (1986), "A vision-led approach to management restructuring", *Organizational Dynamics*, 14(4): p 9-16.



**APPENDICES**

## Appendix A: Company Sample by Age of Companies

<b>Year Founded Range</b>	<b>Age Range (at start of 2015)</b>	<b>Percentage of Respondents</b>
1989 or earlier	26 years or older	21.3%
1990-1995	25-20 years	23.5%
1996-2000	19-15 years	19.2%
2001-2005	14-10 years	15.5%
2006-2010	9-5 years	11.3%
2011-2015	4 years or less	9.2%

## Appendix B: Company sample by Revenues (PLN)

<b>Revenue Range</b>	<b>Percentage of Respondents</b>
Up to 500,000	16.54%
Over 500,000 up to 1 million	7.47%
Over 1 up to 2 million	7.17%
Over 2 up to 5 million	11.27%
Over 5 up to 10 million	12.30%
Over 10 up to 20 million	13.18%
Over 20 up to 50 million	16.98%
Over 50 up to 100 million	6.30%
Over 100 up to 250 million	5.56%
Over 250 million	3.07%

## Appendix C: Distribution of Sample by Company Size

<b>Size</b>	<b>Description (based on public and EU definitions below concerning past 2 years)</b>	<b>Percentage of Respondents</b>
Micro	Employs less than 10 workers and its annual revenue or total assets does not exceed 2 mn PLN.	29%
Small	Employs 10-49 workers and annual revenue or total assets does not exceed 10 mn PLN.	29%
Medium	Employs 10-49 workers and annual revenue does not exceed 50 mn PLN or total assets does not exceed 43 mn PLN.	24%
Large	Employs above 249 workers and annual revenue exceeds 50 mn EUR or total assets exceeds 43 mn PLN .	8%
N/A	Not identifiable	10%

