This is a self-archived final draft version of the original article. It differs from the original in pagination and typographic detail.

## How to cite:

Siltamäki, M., Matalamäki, M. & Vuorinen, T. 2018. Satisfaction on financial performance diminishes informal strategizing practices. In: ICSB (Ed.) Proceedings of the 63<sup>rd</sup> ICSB World Conference, Taipei, Taiwan June 26<sup>th</sup>–29<sup>th</sup> 2018. Washington: International Council for Small Business (ICSB), 72.





# **Satisfaction on Financial Performance Diminishes Informal Strategizing Practices**

Marko Siltamäki, University of Vaasa Marko Matalamäki, University of Vaasa Tero Vuorinen, University of Helsinki

### Introduction

This study investigates the impact of financial performance satisfaction on company's strategizing practices. The strategizing is examined through effectuation and causation heuristics. Effectuation is one of the most-cited emerging theories of entrepreneurship in the twenty-first century, challenging the traditional understanding of entrepreneurial decision making (Fisher, 2012; Reuber et al., 2016; Read et al., 2016; Alsos et al., 2016). Effectuation (Sarasvathy, 2001) is originally perceived an operating model covering the early stages of an organisation's growth. However, recent studies have concentrated on effectuation research in the context of an existing business. The primary data for the study was collected through survey questionnaires between January and May 2015. It is based on a survey for chief executive officers and higher executives who have been part of strategizing practices in the same companies. Based on a sample of 231 informants we use confirmatory factor analysis to unveil the linkages between financial performance satisfaction, effectuation and causation. The key finding is that once companies are satisfied on their financial performance, they become either more cautious or they just start planning more carefully. According to the findings companies start paying more attention to the formal planning as the causation is positively affected by the satisfaction on financial performance.

## **Biographical Notes**

Marko Siltamäki PhD student in University of Vaasa, School of Management. Researcher at the University of Vaasa. His current research focuses on strategic management and small business growth. His work has been published in University of Vaasa publication series. He has extensive experience from project management and software development.

Marko Matalamäki PhD student in University of Vaasa, School of Management. Researcher at the University of Vaasa. His current research focuses on entrepreneurship and small business growth. His work has been published e.g. in Journal of Enterprising Culture and Journal of Small Business and Enterprise Development. He has extensive experience as managing director and business development.

**Tero Vuorinen** PhD is a Research Director at the University of Vaasa, Department of Management (Seinäjoki Campus) and adjunct professor at Universities of Helsinki and Turku. His special interests are strategic management, especially strategic tools and strategy practices, and business networks. He has focused on the research with strong practical relevance in SME context.

### **Background**

Financial performance is usually measured by numbers of financial results such as sales growth, profitability, market share, return on investment or economic value added (Li et al., 2011; Yoon and Kim, 2009). The usage of multiple indicators of firm performance enables more comprehensive information which has been successfully employed in several previous studies (e.g., Birley and Westhead, 1990; Weinzimmer et al., 1998; Wiklund et al., 2009). These financial indicators have limitations when comparing the performance of various companies with different goals, visions, sizes and industrial backgrounds in which cases non-financial performance measures can be more appropriate (Jaworski and Kohli, 1993; Yoon and Kim, 2009). As suggested by the literature on positive emotions (Frederickson, 1998, 2001) the positivity influences individuals' judgment by serving as a source of information about their environment (Clore et al., 1993). It also works as a source of self-esteem increasing satisfaction and influencing the responses to the opportunities in their environment (Frederickson, 2001; Frederickson and Joiner, 2002; Lyubormirsky et al., 2005).

Effectuation theory assumes that the goal of an entrepreneur is not clear in the beginning of the entrepreneurial process. Instead, the entrepreneur utilises available resources to meet the demands of the market in a flexible manner (Sarasvathy, 2001). While effectuation is at its best in an unpredictable environment, causation is relevant in a stable operating environment (Sarasvathy, 2001, 2008; Fisher, 2012; Dutta et al., 2015; Dew et al., 2009; Kalinic et al., 2014). Many researchers have showed simultaneous usage of effectuation and causation in same organisations (Sitoh et al., 2014; Dutta, Gwebu and Wang 2015; Lingelbach et al., 2015; Reymen, Andries, Berends et al., 2015). The causation ensures that the venture stays focused and predicts what is predictable, while the effectuation counterpart allows a flexible response to changes in the operations environment (Sarasvathy,

2008; Dew et al., 2009; 2011; Fisher, 2012; Berends et al., 2014; Van de Vrande, De Jong, Vanhaverbeke and Rochemont, 2009; Sitoh et al., 2014).

#### **Methods**

The studied companies were random sampled Finnish SMEs, employing 10-249 employees, with the average-size of 35 employees, annual turnover ranging from two million to eighteen million Euros. For measuring effectuation and causation, we used the scales developed by Chandler et al. (2011) whom developed Sarasvathy (2001) work by outlining four measurable subdimensions for effectuation; 1) experimentation, 2) affordable loss, 3) pre-commitments, and 4) exploitation (Chandler et al., 2011, 377). The effectuation and causation was measured along a five-point bi-polar Likert scale.

Financial performance satisfaction was measured by an approach adapted from Covin et al. (1990), and first developed by Gupta and Govindarajan (1984). This subjective performance scale (or a similar) has been widely used in previous research (e.g., Covin et al., 1990; Eddleston and Kellermanns, 2007; Ling and Kellermanns, 2010; McDougall et al., 1994; Powell and Eddleston, 2008; Stam and Elfring, 2008). Four satisfaction items was measured along a five-point bi-polar Likert scale: sales level; sales growth; gross profit margin; and return on investments.

We used confirmatory factor analysis to explore the relationships between financial performance satisfaction, effectuation and causation. To show nomological validity, we calculated and evaluated multiple model-fit indices: ratio of x2 / degrees of freedom (Wheaton, Muthén, Alwin, & Summers, 1977); the root mean square error of approximation (RMSEA; Steiger & Lind, 1980); the comparative fit index (CFI; Hu & Bentler, 1995); the goodness of fit index (GFI; Jöreskog & Sörbom, 1996); incremental fit index (IFI; Bollen, 1989) and the Tucker-Lewis coefficient (TLI; Tucker & Lewis, 1973).

#### **Results**

We validated the data by using SPSS24 and Amos24 to cross-validate the findings. First, there was removed two outlier observations from the dataset as tested using Malahanobis distance measures. Therefore, the final sample size is 229 respondents. Second, we tested the skewness and kurtosis of the scale items and we used acceptable limit of  $\pm 2$  indices (Trochim & Donnelly, 2006; Field, 2000 & 2009; Gravetter & Wallnau, 2014).

Third, reliability analysis was conducted with Cronbach's alpha using 0.60 threshold (Nunnally, 1970). Reliability for flexibility was not satisfied and therefore it was removed from the analysis. Fourth, the convergent validity was assessed by checking whether all the latent variables' AVE measures were above the cut-off point of 0.4 offered by Bagozzi and Baumgartner (1994, p. 402) and that the construct reliability equaled or exceeded 0.6 as stated by Bagozzi and Yi (1988, p. 82). Fifth, Fornell–Larcker coefficients was used to test discriminant validity.

Using confirmatory factor analysis (CFA) and structural equation modeling (SEM), we evaluated the measurement and structural models. The initial measurement model was unacceptable (X²=434.057 with 163 degrees of freedom giving 2.663 ratio; RMSEA=.085; CFI=.804; GFI=.837; IFI=.808 TLI=.772). Based on maximum likelihood analysis we eliminated two items due to low factor loadings (<0.5) and the final measurement model was further improved to acceptable (X²=204.245 with 125 degrees of freedom giving 1.634 ratio; RMSEA=.053; CFI=.936; GFI=.913; IFI=.937 TLI=.921) by allowing three pairs of error variables to covariate as suggested by modification indices. Our structural model satisfied established model-fit criteria (X²=207.079 with 130 degrees of freedom giving 1.593 ratio; RMSEA=.051; CFI=.938; GFI=.912; IFI=.939 TLI=.926).

Our model shows that satisfaction on financial performance negatively ( $\beta$ =-.24, p<.01) affects the experimentation. The causation is positively affected by the satisfaction on

financial performance ( $\beta$ =.16, p<.05) and the causation positively affects experimentation ( $\beta$ =.38, p<.001). Affordable losses positively affect the pre-commitments ( $\beta$ =.19, p<.05) which largely and significantly affects causation ( $\beta$ =.48, p<.001) which is in a line with Chandler's et al. (2011) original findings.

The contribution of this research is to test how satisfaction on financial performance affects strategizing using effectuation and causation heuristics in the context of established companies. The key finding is that once companies are satisfied on their financial performance they become either more cautious or they just start planning more carefully. According to the findings companies start paying more attention to the formal planning as the causation is positively affected by the satisfaction on financial performance. However, at the same time the experimentation is negatively affected by the satisfaction on financial performance. This associates with increased cautiousness within business decisions. As the scale for satisfaction on financial performance is subjective, the satisfaction could refer many things. At first, the satisfaction on financial performance could be result of good financial performance in absolute numbers, which would give room for more experimentation and therefore the negative relationship could not be explained through this unless it also means that companies become more cautious and therefore they start planning more carefully. Second, the satisfaction on financial performance can also come from coping. In this case, it is more likely that companies' absolute financials are not that good and it can explain the negative effect on experimentation. In this case, the positive effect of financial performance satisfaction on causation associates with more cautious expenditure of resources through careful planning.

The limitation of this research is that these results should be interpreted against company financial data. Therefore, we propose corresponding addition for future research on financial performance satisfaction.

#### References

Alsos, G.A., Clausen, T.H., Hytti, U. and Solvoll, S. (2016), "Entrepreneurs social identity and the preference of causal and effectual behaviours in start-up processes", *Entrepreneurship and Regional Development*, 28 (3-4), 234–258.

Bagozzi, R.P. and Baumgartner, H. (1994). "The evaluation of structural equation models and hypothesis testing". In Bagozzi, R. (Ed.), *Principles of Marketing Research*, 386–422. Oxford: Blackwell Business.

Bagozzi, R., and Yi, Y. (1988). "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, 16 (1), 74.

Berends, H., Jelinek, M., Reymen, I., and Stultiëns, R. (2014). "Product innovation processes in small firms: Combining entrepreneurial effectuation and managerial causation", *Journal of Product Innovation Management*, 31, (3), 616-635.

Birley, S., and Westhead, P. (1990). "Growth and performance contrasts between 'types' of small firms", *Strategic Management Journal*, 11 (7), 535–557.

Bollen, K. A. (1989). "A new incremental fit index for general structural equation models", *Sociological Methods and Research*, 17, 303–316.

Chandler, G., DeTienne, D., McKelvie, A., and Mumford, T. (2011). "Causation and effectuation processes: a validation study", *Journal of Business Venturing*, 26, 375-390.

Clore, G.L., Schwarz, N., Conway, M. (1993). "Affective causes and consequences of social information processing", In: Wyer, R.S., Srull, T.K. (Eds.), *Handbook of Social Cognition*, 2nd ed. Lawrence Erlbaum Associates, Hillsdale, NJ, 324–404.

Covin, J.G., Prescott, J.E., Slevin, D.P. (1990). "The effects of technological sophistication on strategic profiles, structure and firm performance", *Journal of Management Studies*, 27 (5), 485–510.

Dew, N., Read, S., Sarasvathy, S.D., and Wiltbank, R. (2009). "Effectual versus predictive logics in entrepreneurial decision-making: differences between experts and novices", *Journal of business venturing*, 24, 287–309.

Dew N, Read S, Sarasvathy, S., and Wiltbank R. (2011). "On the entrepreneurial genesis of new markets: effectual transformations versus causal search", *Journal of Evolutionary Economics*, 21, (2) 231-253.

Dutta, D.K., Gwebu K.L., and Wang, J. (2015). "Personal innovativeness in technology, related knowledge and experience, and entrepreneurial intentions in emerging technology industries: a process of causation or effectuation?", *International Entrepreneur Management Journal*, 11, 529-555.

Eddleston, K.A. and Kellermanns, F.W. (2007). "Destructive and productive family relationships: a stewardship theory perspective", *Journal of Business Venturing*, 22 (4), 545–565.

Field, A. (2000). "Discovering statistics using spss for windows". London-Thousand Oaks-New Delhi: Sage publications.

Field, A. (2009). Discovering statistics using SPSS. London: SAGE.

Fisher, G. (2012). "Effectuation, causation, and bricolage: a behavioral comparison of emerging theories in entrepreneurship research", *Entrepreneurship Theory and Practice*, 36 (5) 1019-1051.

Fredrickson, B.L. (1998). "What good are positive emotions?" *Review of General Psychology*, 2, 300–319.

Fredrickson, B.L. (2001). "The role of positive emotions in positive psychology: the broaden-and-build theory of positive emotions", *American Psychologist*, 56, 218–226.

Frederickson, B.L., Joiner, T. (2002). "Positive emotions trigger upward spirals toward emotional well-being", *Psychological Science*, 13, 172–175.

Gravetter, F., and Wallnau, L. (2014). "Essentials of statistics for the behavioral sciences", (8th ed.). Belmont, CA: Wadsworth.

Gupta, A.K. and Govindarajan, V. (1984). "Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation", *Academy of Management Journal*, 27, 25–41.

Hu, L., and Bentler, P. (1995). "Evaluating model fit". In R. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues, and Applications*, 76–99. Thousand Oaks, CA: Sage Publications.

Jaworski, B.J. and Kohli, A.K. (1993). "Market orientation: antecedents and consequences", *Journal of Marketing*, 57 (3), 1–18.

Jöreskog, K. G., and Sörbom, D. (1996). *LISREL 8: The Simplis Command Language*. Chicago: Scientific Software International.

Li, L., Li, D. and Shi, W. (2011), "Internationalization, internalization and the performance of US biopharmaceutical SMEs", *Multinational Business Review*, 19 (1), 65–93.

Ling, Y. and Kellermanns, F.W. (2010). "The effects of family firm specific sources of TMT diversity: the moderating role of information exchange frequency", *Journal of Management Studies*, 47, 322–344.

Lyubormirsky, S., King, L., Diener, E. (2005)." The benefits of frequent positive affect: does happiness lead to success?", *Psychological Bulletin*, 131, 803–855.

Kalinic, I., Sarasvathy, S., and Forza, C. (2014). "Expect the unexpected: Implications of effectual logic on the internationalization process", *International Business Review*, 23, 635-647.

Lingelbach, D., Sriram, V., Mersha, T., and Saffu, K. (2015). "The innovation process in emerging economies. An effectuation perspective", *Entrepreneurship and innovation*, 16 (1), 5-17.

McDougall, P.P., Covin, J.G., Robinson, R.B. and Herron, L. (1994). "The effects of industry growth and strategic breadth on new venture performance and strategy content", *Strategic Management Journal*, 15 (7), 537–554.

Nunnally Jr, J.C. 1970. "Introduction to psychological measurement". New York: McGraw-Hill.

Powell, G.N. and Eddleston, K.A. (2008). "The paradox of the contented female business owner", *Journal of Vocational Behavior*, 73, 24–36.

Read, S., Sarasvathy, SD., Dew, N., and Wiltbank, R. (2016). "Response to Arend, Sarooghi, and Burkemper (2015), Cocreating effectual entrepreneurship research". *Academy of Management Review*, 41 (3), 528–536.

Reuber, A. R., Fischer, E., and Coviello, N. (2016). "Deepening the dialogue: New directions for the evolution of effectuation theory". *Academy of Management Review*, 41 (3), 536–540.

Reymen, I., Andries, P., Berends, H., Mauer, R., Stephan, U., and Van Burgh, E. (2015). "Understanding dynamics of strategic decision making in venture creation: A process study of effectuation and causation", *Strategic Entrepreneurship Journal*, 9, 351-379.

Sarasvathy, S. (2001). "Causation and effectuation: towards a theoretical shift from economic inevitability to entrepreneurial contingency", *Academy of Management Review*, 26, 243-263.

Sarasvathy, S. (2008). *Effectuation: Elements of Entrepreneurial Expertise*, Edward Elgar Cheltenham, UK.

Sitoh, M.K., Pan, S.L., and Yu, C.Y. (2014). "Business models and tactics in new product creation: The interplay of effectuation and causation processes", *Transactions on Engineering Management*, 61, (2) 213-224.

Stam, W. and Elfring, T. (2008). "Entrepreneurial orientation and new venture performance: the moderating role of intra- and extraindustry social capital", *Academy of Management Journal*, 51 (1), 97–111.

Steiger, J., & Lind, J. (1980). "Statistically based tests for the number of common factors". Paper presented at the *Annual Meeting of the Psychometric Society*.

Trochim, W. M., and Donnelly, J. P. (2006). "The research methods knowledge base" (3rd ed.). Cincinnati, OH:Atomic Dog.

Tucker, L. R., and Lewis, C. (1973). "A reliability coefficient for maximum likelihood factor analysis", *Psychometrika*, 38, 1–10.

Van de Vrande, V., De Jong, J.P., Vanhaverbeke, W., and De Rochemont, M., (2009). "Open innovation in SMEs: Trends, motives and management challenges", *Technovation*, 29, (6) 423-437.

Weinzimmer, L. G., Nystrom, P. C., and Freeman, S. J. (1998). "Measuring organizational growth: Issues, consequences and guidelines". *Journal of Management*, 24, (2) 235-262.

Wheaton, B., Muthén, B., Alwin, D., and Summers, G. (1977). "Assessing reliability and stability in panel models". In D. Heise (Ed.), *Sociological Methodology*. San Francisco, CA: Jossey-Bass, 84–136.

Wiklund, J., Patzelt, H., Shepherd, D.A. (2009). "Building an integrative model of small business growth", Small Business Economics, 32, 351–374.

Yoon, K.C. and Kim, Y.L. (2009). "A study of the business performance and degree of globalization of Korean venture enterprises". *International Business Journal*, 20 (2), 29–63.