Policy Brief: Renewal of manufacturing

How do firms make sense of their strategies and success?

Summary of the study

This Policy Brief covers parts of the ReInRe-research project which focuses on recognizing successful firms and comparing their strategic choices to their peers (see Stenholm et al., 2015). More specifically the ReInRe-research project addresses how successful firms can shape the renewal of manufacturing through engagement in entrepreneurial strategies supporting innovation, learning, and resource management capabilities.

We concentrate on food industry and industries related to ship building both of which are vital for the Finnish economy, and which face uncertainty and on-going change. Empirically the ReInRe-project employs mixed method study design by combining quantitative survey data augmented with objective performance data and qualitative interview data collected from eight firms.

Our previous statistical findings suggested that firms' strategic choices, even those assumed to generate above the average performance, seem not to be enough robust predictors of business performance over time (Stenholm et al., 2015). These findings were supported by non-average based configuration analyses: Both successful and less successful firm emphasize in inside-out (innovation, risk-taking) and outside-in (knowledge spillover and sensing) strategies in a similar ways. However, we found that successful firms emphasize alertness to change more than less successful firms. (Stenholm, 2016).

In this Policy Brief we present the results from the analyses of how firms make sense of their strategies and success. Our analyses exposed 10 dimensions through which entrepreneurs and CEOs narrate their firm's strategies and success.

By combining the dimensions we introduce a *strategic funnel of firm success*. The analyses show that successful firms **construct** their success through persistence, learning-orientation, wide and future-oriented scope of alertness, and by continuously developing the firm. Less successful firms narratives highlight external-oriented hindrances and that their approach on firm development is internal and reactive, whereas successful firms report flexibility and tailoring in resource management.

Accordingly, our findings highlight the need to develop firms' timely and contextual understanding of their strategies and aims. A wider, customer- and future-oriented strategical thinking is less recognizable among less successful firms. The related public policy interventions can address and support among others relationship management and the importance of making sense of context of the industry.



Name of the project:

Renewal of manufacturing – Study on the role of pioneering firms as engines of industry renaissance (ReInRe)

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Tekes Ohjelmatoiminnan strateginen tuki

Making sense of strategies

In this study we focus on identifying and understanding how firms make sense of their strategies and success. At the firm-level strategy comprises firm's goals and a general plan or pattern how a firm is competing in a market and how the goals are carried out (Mintzberg, 1987). Edelman et al. (2005) suggest that firm strategies provide the generative mechanism through which resources determine firm performance. In order to remain competitive, each firm, to a certain degree, has to match their skills and strategic choices to the requirements of an industry (Porter, 1985). Industries are, however, characterized by uncertainty, decreased ability to forecast, blurring firm and industry boundaries, and managerial mindset that pursue sensing, responding and even creating change (Eisenhardt et al., 2000). In altered circumstances less efficient firms are disbanded and firms with no tendencies for renewal will be downsized (Florida, 2010). Successful firms can also be disadvantaged, if they lean too strongly on their previous success without concerning changes caused by turbulent environment (Rumelt, 1984).

Our previous statistical findings suggested that the firm's strategic choices could not predict business performance over time since both successful and less successful firms emphasized similar strategies in similar ways (Stenholm et al., 2015). Thus, we believed that there is need for more inductive and more nuanced analytical approach that is based on the empirical materials and on how the firms make sense of their strategies instead of theories (Gioia et al., 2012). Sensemaking emphasizes that people try to make things rationally accountable to themselves and others (Weick, 1993), and is interested in how people appropriate and enact their reality (Holt & Cornelissen, 2014; Maitlis and Christianson, 2014; Sandberg and Tsoukas, 2014).

We address this by focusing on firms' sense making of their strategies and success. Instead of following a causational methodology addressing associations between strategies and performance, our focus is on identifying and understanding how firms comprehend and describe their strategies and success. Following the ReInRe-project's aims we investigate the role of entrepreneurial abilities. In taking a closer look at the sense making we analyze the differences in the narratives of successful and less successful firms.

Data and methodology

We address firms' sense making of their strategies and success with interview data collected from selected established firms. The selection of cases had several phases. First, we used survey data from 2009 covering 128 Finnish firms operating in the food industry (NACE 10–11) and 162 firm from the sea cluster, including ship building and any sub-contracting sectors (engineering, furnishing, maintenance etc.). These data were augmented with longitudinal financial statement data gathered from Orbis database.

Based on the above firms were listed per industry according to their three year average annual growth of turnover and EBITDA from 2009 to 2012. Based on these two measures we listed top and low 30 performers per industry category. Fourth, we combined these listings, and ranked firms as top or low performers in relation to measures. In selecting the informants we targeted on firms with little variation in their backgrounds. In validating the selection of the firms we consulted experts and researchers knowledgeable of both industries.

We employ qualitative interview data in studying how firms make sense of their strategies and success.



Interviews were conducted during spring and summer 2016. We conducted semiconstructed face-to-face interviews which lasted between one hour twenty minutes and two hours. Strategies or success were not directly addressed in the interviews, but instead, the interviewees were asked to tell stories covering their goals, major decisions they have made and their opinion how their choices and actions have influenced the development of their industry, for instance. The interviews were recorded and transcribed.

Our analysis indicated 113 different concepts which are emphasized in firms' narratives on their strategies and success.

In investigating firms' sense making we utilized systematic conceptual analysis (Gioia et al., 2012) in which interviewees narratives were structured and coded into first order concepts, second order themes, and aggregate dimensions (see Figure 1 for an example). Coding was conducted by two researchers who analyzed data separately before combining their results. First order concepts are generated based on the narratives, the descriptions and illustrations which informants use in addressing their opinions and experiences. This conceptual phase generated 113 different concepts ranging from *access to raw materials* to *unexpected events/vulnerability*. In retrieving second order themes we analyzed concepts with at least five mentions. This categorization generated 47 themes covering issues from *issues external to industry* to *solving customers' problems*. Based on the content analysis the themes were grouped into aggregate dimensions. The data structure for one aggregate dimension titled context of doing business is shown in Figure 1.

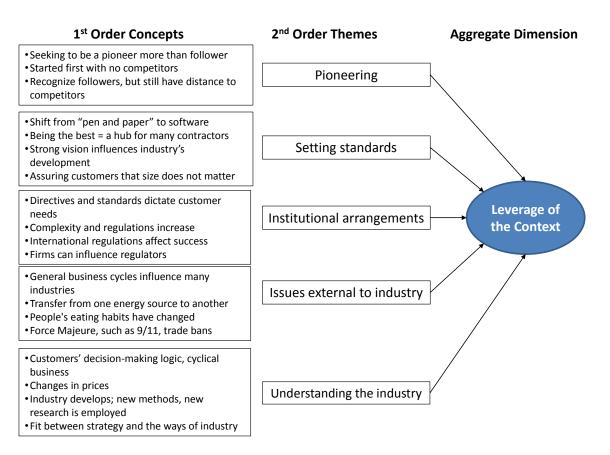


Figure 1: Data structure (adapted from Gioia et al., 2012)



Our results expose 10 dimensions illustrating the narratives through which firms make sense of their strategies and success. Our analysis revealed 10 aggregate dimensions through which entrepreneurs and CEOs describe how they make sense of their strategies and success (Table 1). We excluded dimension of business succession, because it focused more on family issues, not on strategies. Due to space limitations we will not extract each dimension, but instead, we focus on dimensions which reflect how entrepreneurial abilities are presented in firms' narratives.

For instance, our analyses exposed descriptions of *alertness* which illustrated narratives which reach far beyond a traditional notion of identifying new market opportunities (Tang et al., 2012). These narratives ranged from general and external to industry changes to importance of following closely competition and competitors' actions. Importantly, alertness and leveraging the context of their industry can generate differences in expected value of firm strategies and thus create competitive advantage for these firms (Barney, 1986).

Firms also highlighted the *persistence over challenges* and that enduring uncertainty and risks is necessary when pursuing success. Along with alertness this illustrates how firms' sense making links to the core of entrepreneurial abilities. Emphasizing the necessity to endure uncertainty and count slow progress of development of their operations reflects firms' ability to manage ambiguity which aids firms to make correct decisions about resource allocation (Foss & Klein, 2012). These abilities are essential in finding ways to employ firm's resources in changing environment (Rumelt, 1984).

Table 1: Dimensions and themes of sense making of firms' strategies and success

Aggregate dimension	Themes
Leverage of the context	Pioneering, Setting standards, Institutional
	arrangements, Issues external to industry,
	Understanding the industry
Alertness at many levels	Competition, Trends, New market
	opportunities, Technological
	development, Structural changes, General
	changes
Persistence over challenges	Enduring uncertainty, Long-term
	approach, Enduring risks
Solvency as a filter	Profitability as a driver, Bearing financial
	risks
Adaptive decisions	Uncertainty as a driver, Effectuation,
	Operative selections, Changes in strategy,
	Changes in ownership
Active resource management	Scarcity, Resource management,
	Necessary investments, Access to raw
	materials, Tailoring and flexibility
Innovation and learning culture	Entrepreneurial mindset, Firm culture,
	Continuous improvement, Process and
	product development
Partnerships as resource	Coopetition, Networking, Strategic
	partnerships
Competition strategies	Differentiation, Internationalization
Customer value co-creation	Customer-directed changes, Listening to
	customers, Solving problems, Sales,
	Marketing, Quality, Competitive
	advantage, Reacting to trends

Our results suggest that established firms describe their strategies among others with narratives which illustrate their engagement in utilizing entrepreneurial abilities.



Studied firms allow experimentation in their decision-making.

Moreover, they stress the importance of supportive firm culture in their success.

Strategic funnel of firm success cover wide, general level strategic qualities, filters moderating decisionmaking, strategic skills, strategic choices and ways of securing

success.

In all, in firms' descriptions of their strategies and success, entrepreneurial abilities scattered over many dimensions. They talked about uncertainty as a driver of decisionmaking or reflected how they have experimented and tested new things without knowing the outcomes beforehand both of which reflect their effectual decision-making (Sarasvathy, 2001). When firms discussed about innovation and learning culture they emphasized entrepreneurial mindset according to which firms tend to turn challenges to opportunities, for instance. Firms also consider continuous improvement and culture as key issues for their success. Firms stress that a culture supporting and rewarding employees over success aids entire firm.

Finally, customer value co-creation illustrates that firms make sense about customer relationships and that their success stems from listening closely to customers' needs and thinking about ways of problem solving. With regards to problems solving interviewed firms addressed that sometimes success requires quick reactions to find solutions to customers' problems. This kind of behavior is typically associated to start-ups and behaviors following lean methodologies (Blank, 2013).

Strategic funnel of firm success

In order to understand firms' sense making of their success we organized the studied 10 dimensions based on their contextual and timely appearance. Some dimensions address larger issues external to the firm whereas the others have an internal focus. We came up with a strategic funnel of firm success which can be employed as a conceptual summary of how firms make sense of their strategies and success. In this funnel historical and wider aspects come before more active, close to firm strategical aspects which are narrowed into sense making of how to secure firms' success (Figure 2).

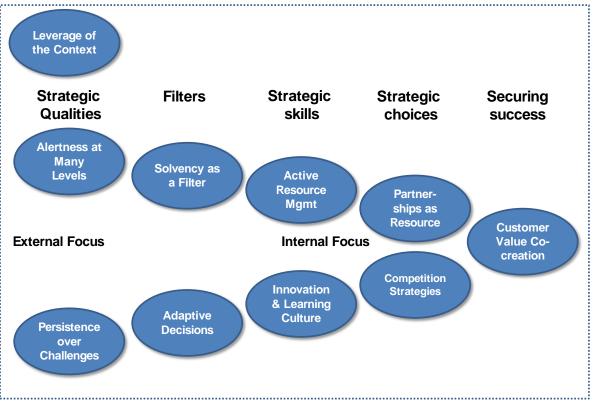


Figure 2: Strategic funnel of firm success

lekes Ohjelmatoiminnan strateginen tuki

Tekesin Ohjelmatoiminnan strateginen tuki -yksikkö tuottaa innovaatioympäristöä palvelevaa tutkimusta teemakohtaisilla hauilla.

The sense making of firms' strategies and success differ between successful and less successful firms. We investigated the differences in narratives of successful and less successful firms. This enabled us to study whether an aggregate dimension was underscored among successful or less successful firm or whether they were evenly emphasized. We focus here only on selected dimensions because of the space limitations. Our results show that among successful firm alertness to general changes (i.e. those which may alter not only their own but also their customers' operations) and competitions are stressed. Less successful firms seem to address structural changes (often in negative way as something that hinders their success) and technological development. In persistence over challenges successful firms focused on enduring uncertainty and risks in their narratives, whereas less successful firms highlighted long-term approach and slow progress.

Interestingly, discussions on profitability and financial risk as part of solvency as a filter dominated mostly successful firms' narratives. They also stressed effectuation in making decisions and the necessary changes in strategies (usually giving up something). Less successful firms talked about strategic choices often in relation to competition. Moreover, entrepreneurial mindset, firm culture, and continuous improvement were highlighted in successful firms' descriptions, while less successful firm stressed process and product development. The latter implies an instrumental sense making of R&D and the former has a more holistic view on innovation.

With regards to aspect to improving turnover, successful firms discussed about customerdirected changes, importance of listening to customers and quality issues. Less successful firms underlined marketing and the significance of reacting to trends more than successful firms.

Discussion

In our request to understand how firms make sense of their strategies and success we found 10 dimensions through which firms describe their circumstances, qualities, skills, and choices. Dimensions cover 47 different themes which stemmed from the narratives of eight firms studied as part of the ReInRe-project.

After analyzing the dimensions we introduced a *strategic funnel of firm success*. It comprises general strategic qualities, filters moderating decision-making, strategic skills, strategic choices and ways of securing success. These parts of funnel illustrate how firms focus on analyzing their surroundings and enduring obstacles arising over time when they address strategies and their success. Accordingly, knowledge becomes a strategic resource if they actively scan their environment and absorb for their use (Nag & Gioia, 2012). This crafts the ways how firms employ their strategic skills in resource management and harnessing innovation and firm culture. Next the funnel narrows by focusing on firm-level strategic choices about partnership and finding competition strategies aimed at improving firms' changes to secure the success through customer value co-creation.

When compared between successful and less successful firms, our findings suggest that successful firms construct their narratives of strategies and success through persistence, adaptive decisions, wide scope of alertness, and by continuously enhancing the firm by having an entrepreneurial mindset and supportive firm culture. Less successful firms' narratives often concern external-oriented hindrances. Moreover, their approach on firm development is to some degree internal and reactive, whereas successful firms report problem solving and customer-oriented tailoring as well as decisions allowing experimentation.

Strategic funnel of firm success narrows from general, external to firm themes to the relationship between firm and their customers.



Implications

Our findings highlight the need to upgrade firms' temporal and contextual understanding of their strategies and aims. A wider, customer- and future-oriented strategical thinking is less recognizable among less successful firms. The related public policy interventions can address and support among others relationship management and the importance of making sense of context within the industry. With regards to public policy interventions to support firms' success and renewal of manufacturing we emphasize the need to:

- Enable firms to extent their thinking and understanding of their business outside their industry.
 - Firms should be provided with tools to aid them to recognize the key elements of in and outside of their industry that can generate changes and shake the "ways of doing things."
- Improve firms' skills to improve their capabilities to improve their operations and enable learning orientation of the firm and its employees.
 - Firms should be provided with tools to enable them to absorb new knowledge and improve their firm culture to allow success to happen.
- Extend firms' understanding of customers' needs from reactive to proactive approaches which can enable firms' to direct the development of industry.
 - In addition to being alert and sensitive to their surroundings, firms should keep a track on their customers' realms. Related renewal can require investments, changes in strategies, partnerships, and revision of resource allocation, and these might be issues to be aided by public policy interventions.

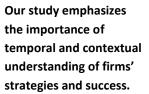
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In addition to customerorientation, firms' understanding of the key elements of in and outside of their industry is pivotal.

