

Does Entrepreneurial Orientation Matter in Entrepreneurial Intention, Effectual Behavior, and Entrepreneurial Outcomes of Japanese SMEs?

Satoshi Yamamoto
Faculty of Business Administration, Tokyo Keizai University, Tokyo, Japan
yamamoto@tku.ac.jp

Viktoriya Kan
Faculty of Economics, Teikyo University, Tokyo, Japan
kviktoriya@gmail.com

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1. Introduction: Purpose of Research¹

The purpose of this paper is to clarify the relationship between entrepreneurial orientation (EO), entrepreneurial intention (EI), effectual behavior, and entrepreneurial outcomes in Japanese B-to-B small- and medium-sized enterprises (SMEs), such as parts suppliers in the manufacturing industry. We conducted a questionnaire for SMEs in Japan using NIKKEI data. Based on a sample of 117 SMEs, our findings show that EO is significantly related to entrepreneurial intention in domestic and foreign market cultivation, specifically in terms of new customer acquisition, but is not related to the development of relationships with existing customers in Japan. Our results also show that EO has a significant impact on effectual behaviors. This is the first research in the existing literature on Japanese SMEs that focuses on the relationship between EO and effectuation (Mthanti and Urban, 2014).

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Moreover, EO strongly relates to entrepreneurial outcomes such as the level of dependence on main customers and foreign sales ratio. This means that via effectual behaviors entrepreneurial SMEs tend to pursue new customer acquisition in order to improve their entrepreneurial outcomes, while their EO serves as the managerial driving force. However, they tend to focus more on domestic customers than foreign customers. Moreover, the firm's size has an impact on its intention and activities in foreign markets.

2. Existing Literature and Hypotheses

During the postwar period, the Japanese manufacturing industry developed significant subcontracting relationships between large manufacturing companies and SMEs (for example, assemblers and Tier-One parts suppliers). However, following the ongoing shrinking of the domestic Japanese market due to depopulation, as well as the shift to overseas expansion and procurement by many large Japanese companies, as well as other recent changes in the business environment, SMEs have started to face strong pressures to acquire new customers to survive. Many companies have succeeded, but little effort was made to understand which of the strategies they adopted proved to be successful and how entrepreneurial concepts changed. Therefore, we attempted to quantitatively examine the relationship between EO and EI, effectual behaviors, and entrepreneurial outcomes for Japanese SMEs.

Generally, EO is regarded as the driving force of firms' entrepreneurial behaviors and their integration of "proactiveness," "innovativeness," and "risk-taking" (Miller, 1983). Covin and Slevin (1988, 1989) pointed out that EO in firms is generated from managers' entrepreneurial attitudes or managerial styles. EO is the foundation of management's ability to strategize, make decisions, set goals, maintain organizational integrity, and create its own competitive advantages (Rauch et al., 2009). EI is "a state of mind directing a person's attention toward a specific object" (Bird, 1988, p. 442). In the context of small business management, EI is described as the will for new business, such as new customer acquisition. Several empirical studies have also confirmed the significant positive relationship between EO and EI (Lee et al., 2011; Prabhu et al., 2012). EO becomes especially important when we analyze the behaviors of SMEs

restricted by small size under the simple family-business structure, wherein the owners are also the managers. Thus, we formulate the following hypothesis:

H1. There is a significant positive relationship between EO and EI.

Also, EO and EI are connected to entrepreneurial decision-making and behavior such as effectuation (Engel et al., 2014). Effectuation or effectual behaviors are decision-making processes and behaviors that enable entrepreneurs to create new ventures in uncertain environments (Sarasvathy, 2001). Several researchers have explored this topic recently. For example, Maine et al. (2014) analyzed the impact of effectuation on the commercialization process of new technologies in the biotechnology industry. Brettel et al. (2014) analyzed the same process in the manufacturing industry. Meanwhile, Anderson (2011) and Lazaris (2014) attempted to connect companies' effectuation to their ability to enter foreign markets. Hence, we formulate the following hypotheses:

H2-1. There is a significant positive relationship between EO and Effectual Behaviors.

H2-2. There is a significant positive relationship between EI and Effectual Behaviors.

Finally, the existing body of literature shows numerous attempts to verify the relationship between EO and managerial performance, measured in growth rates of sales or profits as entrepreneurial outcomes (Wiklund and Shepherd 2005; Anderson and Eshima, 2013). Moreover, this relationship was observed for SMEs acting in different national contexts (Jones and Coviello, 2005; Zhou, 2007). Therefore, uncovering the same significant relationship in our research would enable us to conclude that EO is an important criterion in analyzing the managerial decision-making process and behaviors of SMEs in Japan as well. Considering the above, we formulate the following hypotheses:

H3-1. There is a negative relationship between EO and Sales Ratio of Main Customer.

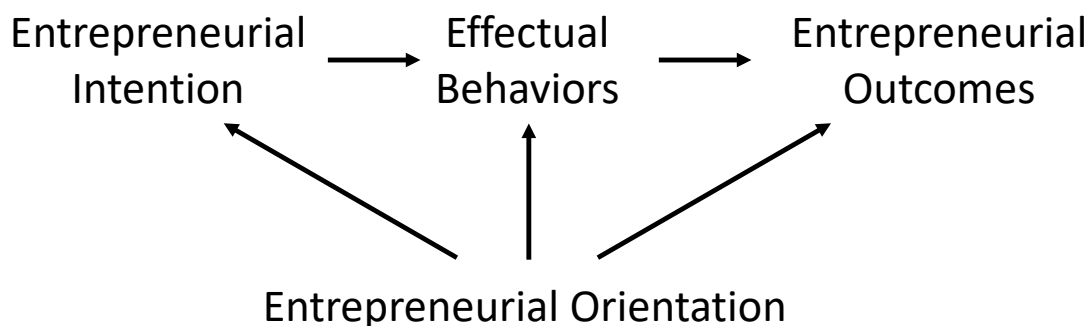
H3-2. There is a negative relationship between Effectual Behaviors and Sales Ratio of Main Customer.

H3-3. There is a negative relationship between EO and Foreign Sales Ratio.

H3-4. There is a positive relationship between Effectual Behaviors and Foreign Sales Ratio.

Using the concepts defined above, we summarize our analysis of EO, EI, effectual behaviors, and entrepreneurial outcomes as presented in Figure 1 below, with the details of empirical outcomes and our interpretations presented in the next section.

Figure 1. Relationship between EO, EI, Effectual Behaviors, and Entrepreneurial Outcomes



3. Empirical Study

To study the relationship between EO and EI, effectual behavior, and entrepreneurial outcome, we designed a questionnaire based on the ideas of Covin and Slevin (1989) concerning the EO concept, and the research of Werhahn et al. (2014) on effectuation. Firstly, we used NIKKEI data to collect information about SMEs in the manufacturing industry. We included data only for those firms defined as SMEs in Japan—i.e. firms

with fewer than 300 employees or with capital less than 300 million JPY. Secondly, we conducted our survey by sending out 1,000 questionnaires to SMEs. As a result, we received 117 responses (11.7%), a fairly ordinary return rate for Japan.

The questionnaire contained three questions assessing "proactiveness," three questions about "innovativeness," and three questions about "risk-taking," as well as 18 questions for "effectuation" to be measured on a seven-point Likert scale. The basic statistics are presented in Table 1.

Table 1. Basic Statistics

| | OBS | Mean | Min | Max |
|--|-----|---------|-------|-------|
| Control Variables | | | | |
| Age of Firms | 117 | 58.763 | 17 | 118 |
| Number of Employees | 117 | 125.889 | 6 | 300 |
| EO: Average of Proactiveness, Innovativeness, Risk-Taking | | | | |
| EO: Average of Proactiveness, Innovativeness, Risk-Taking | 117 | 4.094 | 1.444 | 6.444 |
| Proactiveness | 117 | 4.336 | 1 | 6.667 |
| Innovativeness | 117 | 4.157 | 1 | 6.667 |
| Risk-Taking | 117 | 3.789 | 1 | 6.667 |
| EI | | | | |
| Existing Customers | 117 | 6.188 | 1 | 7 |
| New Domestic Customers | 117 | 5.761 | 2 | 7 |
| New Foreign Customers | 117 | 4.256 | 1 | 7 |
| Effectuational Behaviours | | | | |
| Effectuational Behaviours | 117 | 4.964 | 2.778 | 6.667 |
| Entrepreneurial Outcomes | | | | |
| Sales Ratio of the Main Customers | 117 | 0.274 | 0.02 | 1 |
| Foreign Sales Ratio | 117 | 0.116 | 0 | 9 |

4. Results and Discussion

Table 2 shows the results of an OLS estimation concerning the relationship between EI and a seven-point Likert scale and EO. We utilized [Existing Customers] as a seven-point Likert scale item to evaluate SMEs' intentions to develop their relationships with their current main customers. [New Domestic Customers] and [New Foreign Customers] were the variables representing SMEs' intention to acquire new domestic or foreign customers.

Table 2. Estimation Results for EI

| Ordered Logit Model | Effectual Behaviours | | | |
|---------------------|----------------------|------------------------|-----------------------|-----------|
| | Existing Customers | New Domestic Customers | New Foreign Customers | |
| EO | Coefficient | 0.097 | 0.963 *** | 0.787 *** |
| | P-Value | 0.57 | 4.74 | 4.34 |
| lnage | Coefficient | 0.193 | -0.013 | -0.548 |
| | P-Value | 0.39 | -0.03 | -1.20 |
| lnemployee | Coefficient | 0.393 | 0.133 | 0.885 *** |
| | P-Value | 1.50 | 0.48 | 3.07 |
| OBS | | 117 | 117 | 117 |

We find that EO is not correlated with Existing Customers but is significantly correlated with both New Domestic Customers and New Foreign Customers. Interestingly, the logarithm for the number of employees [lnemployee], which we used as the proxy for firm size, is also significantly correlated with New Foreign Customers. This suggests that the firm size is important for EI in foreign customer acquisition. Conversely, the logarithm for Age of Firm [lnage] has no significant impact on EI.

The estimation results of Table 3 show that EO has a significant impact on effectual behaviors and serves as the main driving force for Japanese SMEs. Moreover, the significant impact of New Domestic Customers on Effectual Behaviors shows that Japanese SMEs tend to pursue effectual behaviors to acquire new customers in the domestic market.

Table 3. Estimation Results for Effectual Behaviors

| OLS with Robust Standard Error | Effectual Behaviours | | |
|--------------------------------|----------------------|---------|-----|
| | Coefficient | T-Value | |
| lnage | 0.148 | 0.495 | |
| EO | 0.182 | 2.46 | ** |
| lnemployee | 0.010 | 0.14 | |
| Existing Customers | -0.019 | -0.3 | |
| New Domestic Customers | 0.147 | 2.69 | *** |
| New Foreign Customers | 0.028 | 0.77 | |
| Constant | 2.922 | 3.37 | *** |
| Adj R-Square | 0.2305 | | |
| F-Value | 4.15 | | *** |
| OBS | 117 | | |

Mean VIF = 1.29

Table 4 shows that both EO and lnemployee are negatively correlated at 5% significance level with entrepreneurial outcomes such as sales ratio of the main customer, which we used as the proxy for level of dependence on the main customer.

Table 4. Estimation Results for Entrepreneurial Outcomes (1)

| OLS with Robust Standard Error | Sales Ratio of the Main Customer | | |
|--------------------------------|----------------------------------|---------|-----|
| | Coefficient | T-Value | |
| EO | -0.067 | -2.29 | ** |
| lnage | 0.120 | 2.33 | ** |
| lnemployee | -0.044 | -1.88 | * |
| Effectual Behaviours | 0.014 | 0.4 | |
| Constant | 0.197 | 0.74 | |
| F-Value | 3.88 | | *** |
| Adj R2 | 0.1353 | | |
| OBS | 117 | | |

Mean VIF=1.11

Moreover, Table 5 shows that EO and lnemployee are positively correlated with Foreign Sales Ratio at 1% level of significance.

Table 5. Estimation Results for Entrepreneurial Outcomes (2)

| Tobit Regression with Robust Standard Error | Foreign Sales Ratio | | |
|--|---------------------|---------|-----|
| | Coefficient | T-Value | |
| EO | 0.090 | 2.9 | *** |
| lnage | -0.008 | -0.12 | |
| lnemployee | 0.121 | 3.83 | *** |
| Effectual Behaviours | -0.078 | -1.87 | * |
| Constant | -0.455 | -1.25 | |
| LR Chi2 | 22.6 | | *** |
| Pseudo R2 | 0.264 | | |
| OBS | 117 | | |

Mean VIF=1.11

Considering the results stated above, we can conclude that EO plays a role as the main driving force for Japanese SMEs in cultivating both domestic and foreign markets. However, Japanese SMEs tend to focus more on domestic customers than foreign customers. Moreover, not only EO but also firm size influences their intentions and has an effect on SMEs' activities in foreign markets.

We should also note that Japanese SMEs in the manufacturing industry have traditionally been hugely involved in the subcontracting system for the domestic market. These practices were restricting managerial behaviors towards the Japanese domestic market and foreign customers, as they relied completely on closed-type (*keiretsu*) business deals. As a result, Japanese SMEs made strategic choices in management quite different to those of foreign SMEs. In particular, Japanese managers maintained and developed business strategies as the result of their intrinsic entrepreneurial attitudes.

However, given the drastic changes in business environment, mostly due to the depopulation process within Japan and the overseas shift of business activity by large Japanese companies, Japanese SMEs are facing new challenges. The growing need to acquire new customers in domestic and foreign markets in order to survive (or to reduce the negative effects of shrinking domestic demand on their business activities) has forced Japanese SMEs to develop and apply new managerial strategies based on their EO, EI, and effectual behaviors. On the other hand, the results of Table 5 show a

negative relationship between effectual behavior and foreign sales ratio. This could imply that given the aforementioned traditional and intrinsic entrepreneurial attitudes, especially the low propensity to risk-taking due to lack of experience and knowledge accumulated during the recent environmental changes, not all Japanese entrepreneurs are yet ready for active effectual behavior given the uncertain foreign business environment—i.e. they would rather apply familiar managerial styles or rely on traditional business networks and deals when they can.

Unfortunately, the entrepreneurial process for Japanese SMEs still remains poorly examined in both the Japanese and English academic literature. Therefore, it is important to further clarify the relationship between EO, EI, effectual behavior, and entrepreneurial outcomes for SMEs in the manufacturing industry in both the Japanese domestic and the international context.

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