

Entrepreneurial orientation and the performance of service business

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Abstract The purpose of this study is to investigate the impact of entrepreneurial orientation (EO) on the performance of service businesses. For this purpose, we analyzed the data from the owners of Japanese food restaurants. The results of this study suggest: (1) the owner's personal attributes have a strong influence on the performance of small- and medium-sized service businesses and (2) most EO dimensions have a positive impact on the service firm's performance. These findings emphasize the importance of developing EO among the owners of small- and medium-sized service businesses for their success.

Keywords Entrepreneurial orientation · Entrepreneurship · Service business · Performance · Culture · Japanese restaurant

1 Introduction

The service industry is the largest and fastest growing segment of the developed nation's economy. In the USA, for instance, the service industry employs about 76% of total labor force and accounts for 57% of the annual GDP. Thus, numerous previous studies have tried to identify the factors that influence the performance of service business by focusing on the quality of service as a factor that satisfies customers' needs and improve organizational performance (Asubonteng et al. 1996;

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Lee and Ulgado 1997; Lee et al. 2000; Ying and Cheng 2006; Fodness and Murray 2007; Uelschy et al. 2007; Chen and Arttejo 2008; Choi and Mattila 2008). However, it is very difficult to find a study that investigated the impact of entrepreneurial culture of organization on the performance of service business despite the fact that entrepreneurial orientation (EO) has long been suggested as an essential attribute of high-performing firms (Covin and Slevin 1991; Lee and Peterson 2000). There is a paucity of empirical documentation about the impact of EO on the performance of service business. Thus, the purpose of this study is to investigate the impact of EO on the performance of service business.

For the purpose of this study, we conducted literature reviews on EO and the relationships between EO and organizational performance. Then, we investigated the impact of EO on the performance of service business by collecting and analyzing the data from the owners of Japanese food restaurants (JFR).

2 Review of relevant literature

2.1 Entrepreneurial orientation

Miller (1983) characterized an entrepreneurial firm as “one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with ‘proactive’ innovations, beating competitors to the punch” (p. 771). He used the dimensions of innovation, proactiveness, and risk taking to measure entrepreneurship. These three dimensions have been adopted by most previous studies to define entrepreneurship (Lumpkin and Dess 1996; Covin and Slevin 1989; Lee and Peterson 2000; Kreiser et al. 2002; Tarabishy et al. 2005).

Covin and Slevin (1989) labeled the concept of EO as the entrepreneurial strategic posture (ESP) of a firm and measured ESP of small manufacturing firms. Like Miller (1983), they maintained that firms are entrepreneurial if they are innovative, risk taking, and proactive. They also maintained that ESP is an essential attribute of high-performing firms. Kreiser et al. (2002) clarified the psychometric properties of the entrepreneurial orientation. They also supported modeling EO with three sub-dimensions including innovation, proactiveness, and risk taking, and revealed these three dimensions can vary independently of one another in a variety of situations as noted by Lumpkin and Dess (1996). Tarabishy et al. (2005) also adopted the original framework developed by Miller (1983). They focused on innovativeness, risk taking, and proactiveness to measure ESP as well. They studied the relationship between leadership type and ESP. The results of their study showed the CEO’s ESP score strongly correlates with his/her transformational leadership profile (TLP) score.

Lumpkin and Dess (1996) described EO as the process, practice, and decision-making activity that leads to new entry. EO can be characterized as entrepreneurial processes that managers use to act entrepreneurially, whereas entrepreneurship can be defined as new entry. They delineated five dimensions of EO including autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness, which underlie nearly all entrepreneurial processes.

Table 1 Dimensions of entrepreneurial orientation

Study	EO dimension used
Miller (1983)	Innovation, proactiveness, and risk taking
Covin and Slevin (1989)	Innovation, proactiveness, and risk taking
Lumpkin and Dess (1996)	Autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness
Wikilund (1999)	Innovation, proactiveness, and risk taking
Lee and Peterson (2000)	Autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness
Kreiser et al. (2002)	Innovation, proactiveness, and risk taking
Marino et al. (2002)	Innovation, proactiveness, and risk taking
Messeghem (2003)	Innovation, proactiveness, and risk taking
Tarabishy et al. (2005)	Innovation, proactiveness, and risk taking

Lee and Peterson (2000) also characterize EO as the entrepreneurial process which reveals how entrepreneurship is undertaken in terms of the methods, practices, and decision-making processes for new entry into the market. They suggested “firms that act independently (autonomy), encourage experimentation (innovativeness), take risk (risk taking), take initiative (proactiveness), and aggressively compete within their market have strong EO, whereas those lacking some or all of these have a weaker EO.”

As summarized in Table 1, Miller’s (1983) original framework has been widely adopted by numerous empirical studies on EO and its impact on the organization.

When it comes to the relationships among dimensions, Miller (1983) and Covin and Slevin (1989) adopted EO as a one-dimensional construct. They insisted that these three dimensions can be combined into a single scale. On the other hand, Lumpkin and Dess (1996) and Kreiser et al. (2002) claimed that dimensions of EO can vary independently of each other. This study adopted Lumpkin and Dess’ (1996) view.

2.2 EO and the performance of organizations

The results from many previous studies have supported the relationship between EO and firm performance (Covin and Slevin 1989; Lumpkin and Dess 1996; Becherer and Maurer 1997; Dess et al. 1997; Wikilund 1999; Lee and Peterson 2000). Lumpkin and Dess (1996) argued that the relationship between EO and firm performance is context specific and introduced the integrative framework for exploring this relationship between EO and firm performance. This concept is shown in Fig. 1.

Becherer and Maurer (1997) investigated the relationship among EO, marketing orientation, and firm performance, and showed that EO is directly related to profit change. Dess et al. (1997) examined the nature of entrepreneurially oriented strategy making and its relationships with strategy, environment, and firm performance. The results of their study showed entrepreneurial strategy making was strongly related to

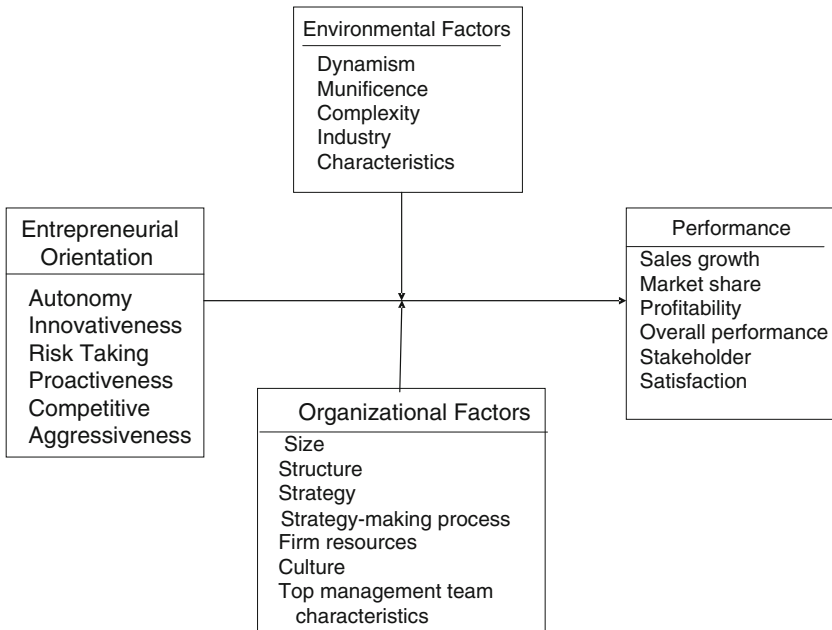


Fig. 1 Conceptual framework of entrepreneurial orientation

firm performance when it was combined with both proper strategy and environment. Covin and Slevin's (1989) study also suggested that EO is related to performance among small firms in hostile environments. Wiklund (1999) examined the sustainability of the relationship between EO and firm performance. He analyzed the data from small Swedish firms and found a positive relationship between EO and firm performance. Furthermore, the result of the study indicated that the relationship increased over time.

On the other hand, some previous studies highlighted the role of culture for generating robust EO. Lee and Peterson (2000) proposed that only countries with specific cultural tendencies could stimulate strong EO, thus experiencing more entrepreneurship and global competitiveness. This concept is shown in Fig. 2. Their model emphasizes the importance of a culture's ability to produce a strong EO within entrepreneurs and firms.

Marino et al. (2002) also investigated the moderating impact of national culture on the relationship between EO and strategic alliance formation. The result of their study showed that firms with strong EO in terms of risk taking, innovativeness, and proactiveness are more likely to form extensive strategic alliances. They maintained that a society's cultural tendency for uncertainty, avoidance, masculinity, and individualism affects alliance formation. Tarabishy et al.'s (2005) study found the relationship between the CEO's leadership and the firm's ESP. The results from previous studies indicate that we can expect meaningful relationships between EO and firm performance.

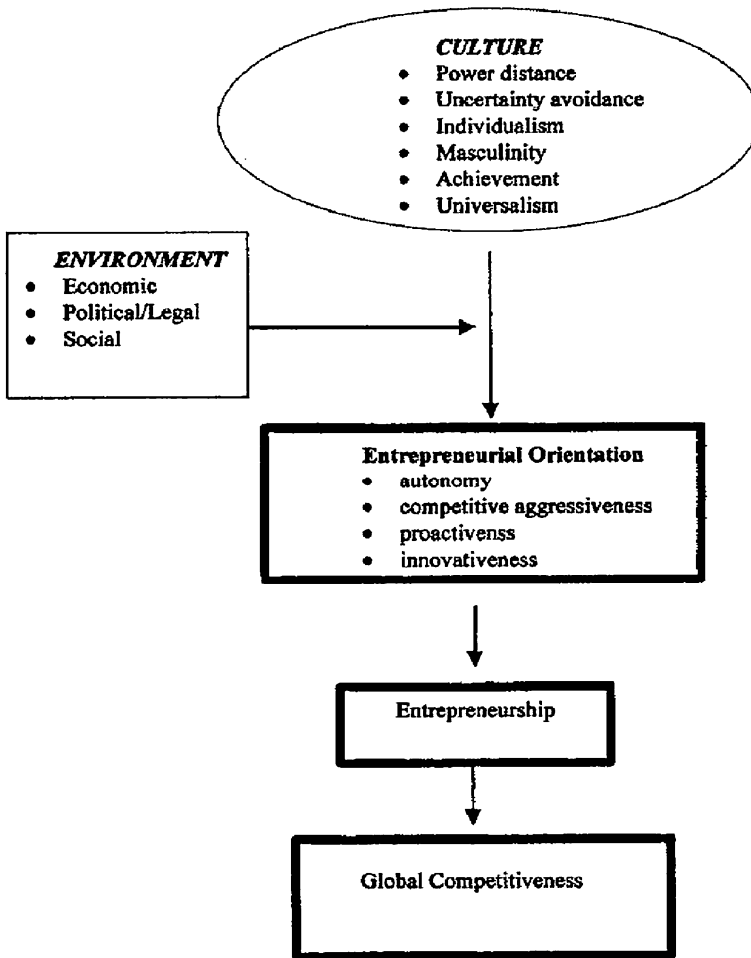


Fig. 2 The relationship between culture and EO as related to entrepreneurship and global competitiveness

3 Research design and methodology

3.1 Research model

The purpose of this study is to identify the impact of EO on the performance of service business. Figure 3 presents the research model.

3.2 Definition of variables

3.2.1 Entrepreneurial orientation

We adopted Lumpkin and Dess’ (1996) definition of EO dimensions as follows.

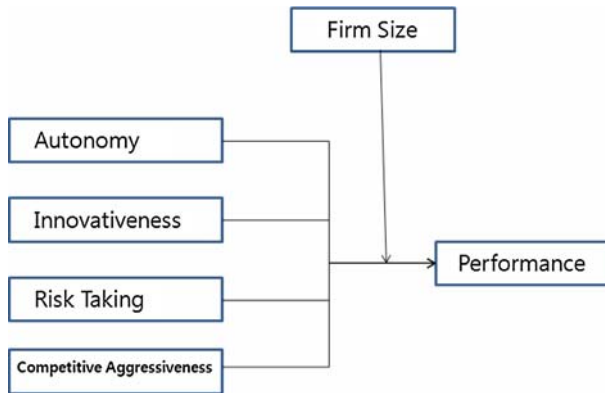


Fig. 3 Research model

- (1) *Autonomy*: The independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion.
- (2) *Innovativeness*: A firm's tendency to engage in, and support new ideas, novelty, experimentation, and creative process which may result in new products, services, or technological processes.
- (3) *Risk Taking*: The willingness to incur heavy debt or making large resource commitments by seizing opportunities in the market place in the interest of high returns.
- (4) *Proactiveness*: Taking initiatives by anticipating and pursuing new opportunities and by participating in emerging markets.
- (5) *Competitive Aggressiveness*: A firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position to outperform industry rivals in the marketplace.

Among the above five dimensions, we adopted four dimensions, consisting of autonomy, innovativeness, risk taking, and competitive aggressiveness. We excluded “proactiveness” because we believed this dimension significantly covaries with other dimensions such as innovativeness and competitive aggressiveness. For example, Covin and Slevin's (1989) study used “avoiding competitive clashes” to measure proactiveness; however, the same question was used to measure competitive aggressiveness by Baum (2003). Furthermore, we found competitive aggressiveness has better fit with current practices in the service business industry through interviews.

A group of questions for each dimension of EO was developed according to the definition of each EO dimension selected and the unique characteristics of sample groups. The five point Likert scale was used for each question. Entrepreneurship can be measured either by the internal psychological trait of individual entrepreneurs or the behaviors related to performing entrepreneurial activities (Lee and Peterson 2000). This study combined the two approaches according to the context of each EO dimension.

Cross-cultural validity of EO dimensions has been proven by Knight (1997) and Kreiser et al.'s (2002) study. Knight examined the dimensionality of EO measurement by analyzing the data from English- and French-speaking managers of Canadian firms. Kreiser et al. also proved the cross-cultural validity of EO measurement which was developed by analyzing the data from six different countries.

3.2.2 *Size of the organization*

The number of employees was used to determine the size of the organization.

3.2.3 *Performance of organization*

Previous research has suggested that subjective measures of firm performance can be coherent with objective measures, thus augmenting reliability and validity (Dess et al. 1997). Thus, we measured the performance of the firm by requesting the owner's subjective evaluation about the performance of their business.

3.3 Instrument design

To develop the questionnaire, interviews with practitioners were conducted to develop measurement for EO dimensions. Also, a thorough review of previous literature on EO was done to identify EO dimensions and relevant questions. By aggregating the results from interviews and literature review, the first draft of the questionnaire measured (1) demographics of the respondent, (2) EO dimensions, and (3) the market position. Then, the questionnaire was significantly revised through three pilot tests. The final version of the questionnaires was distributed to the sample group.

3.4 Sample and data collection

This study is intended to investigate the relationship between EO and the performance of service businesses. The prepared questionnaires were sent to the owners of 140 JFRs in the Seoul Metropolitan Area, South Korea. All the questionnaires were collected and 137 usable questionnaires were used for analysis. Since the majority of sample groups consisted of small- and medium-sized JFRs that are owned and operated by a single owner, we can assume that EO of the firm is equivalent to the owner's EO. Furthermore, previous studies showed the positive impact of the psychological traits of owners and managers on firm level EO (Entrialgo et al. 2000; Krauss et al. 2005). Thus, we measured the owners' EO to represent organizations' EO.

3.5 Analysis of data

To investigate the relationship between EO dimensions and the performance of JFRs, various statistical tools were employed for this study. First, multiple

regression analyses were employed to identify which dimensions of EO influence the performance of JFR. Second, respondents were separated into two groups according to their level of each EO dimensions. Then, four ANOVA analyses were conducted to differentiate the two groups by comparing the mean scores of their performance. SPSS 15.0 was used for analysis.

4 Results and discussion

4.1 Demographic characteristics of the sample group

Table 2 shows the size of responding organizations. The size was directly dependant on the number of employees. The average number of employees of the responding organizations was 9.72. The results indicate that two-thirds of the responding organizations were small-sized enterprises with less than 10 employees. Sixteen respondents did not answer the question for the size of organizations. Thus, only 121 questionnaires are used for this analysis.

4.2 Assessment of reliability

Since the questionnaire of this study was developed according to the clear definition of EO dimensions by Lumpkin and Dess (1996), validity analysis for systematic errors was not carried out. We conducted a reliability analysis to check random errors, which tend to cause the measurement to fluctuate around the exact value. Measurement reliability refers to the extent that the data produce stable and consistent measurement. Of the many kinds of reliability, we chose to use internal consistency reliability to test whether questions, which are designed to measure the same construct, show the same score from the respondents. Cronbach's alpha value was needed to measure internal consistency reliability which gave the degree of relatedness of the individual items. Table 3 shows the result of the reliability test questions used for measuring each EO dimension. One question from autonomy and another from risk taking were removed from the questionnaire because they significantly reduced the alpha scores. The table indicates that the Cronbach's alpha values for all EO dimensions are slightly lower than 0.7 which is a standard minimum value suggested by Nunally (1978). Although this standard value has been

Table 2 Size of the organization

Number of employees	Frequency	Percent	Cumulative percent
4 or less	22	18.1	18.1
5–8	58	47.9	66.1
9–14	24	19.1	85.9
15–29	16	13.2	99.1
30–49	1	0.1	100.0
Total	121	100.0	

Table 3 The result of reliability test

EO dimensions	Items	Alpha value
Autonomy	I always complete everything I initiate	.636
	I am always positive about problems arising in my life, and solve them on my own	
	Even if I fail many times, I will keep on trying until I succeed on this business	
Innovativeness	I always try to make some changes in my business	.613
	I always try to develop new items on the menu which cannot be offered by competitors	
	I keep on studying Japanese food	
Risk taking	I keep on developing new menus for my business	.692
	I enjoy facing a difficult task from which other people want to keep away	
	I prefer high risk projects with a high return	
Competitive aggressiveness	I prefer to make a bold investment that could harvest superior return	.662
	I prefer aggressive price competition	
	I try hard to take customers from competitors	
	I watch competitors' business strategies to react against them promptly	
	I prefer aggressive marketing of new menus and services through the Internet	

commonly adopted in academic field, we do not need to strictly apply it since Nunally suggested the value based on his experience rather than any theoretical background (Lee 2003). Thus, we can still assume internal consistency reliability.

4.3 Impact of EO dimensions

Multiple regression analysis was conducted to investigate the influence of each EO dimension on the performance of the service business. As shown in Table 6, four dimensions of EO including (1) autonomy, (2) innovativeness, (3) risk taking, and (4) competitive aggressiveness were used as independent variables. The size of the organization was also used as a control variable. The dependent variable was the performance of JFR. Table 4 shows the extracted model, which explains about 16% of total variance. *P* value (.064) in ANOVA statistics in Table 5 shows the model is significant at the α -level of 0.001.

Tolerance scores in Table 6 show that the multi-collinearity problem can be ignored since all the tolerance scores were greater than .01 (Pedhazur 1997). The Durbin–Watson coefficient for the auto-correlation problem was not checked since the data obtained were not time series data. The coefficient scores in Table 6 show that the size of the organization and competitive aggressiveness are major factors that influence the performance of JFR. The result indicates that the size of the organization is the strongest factor influencing the performance of JFR. Competitive

Table 4 Model summary

Model	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	Standard Error
1	.401	.161	.124	.64888

Table 5 ANOVA statistics

Model		Sum of squares	df	Mean square	<i>F</i>	Significance
1	Regression	9.286	5	1.857	4.411	.001
	Residual	48.421	115	.421		
	Total	57.707	120			

Table 6 Regression model results^a

Model		Unstandardized coefficients		Standardized coefficients Beta	<i>t</i>	Significance	Collinearity statistics Tolerance
		Beta	Standard Error				
1	(Constant)	1.871	.477		3.924	.000	
	Size	.028	.010	.241	2.732	.007	.939
	Autonomy	.146	.149	.110	.977	.331	.574
	Innovativeness	-.008	.144	-.007	-.053	.958	.459
	Risk taking	.025	.100	.027	.252	.801	.634
	Competitive aggressiveness	.244	.125	.201	1.944	.054	.684

^a Dependent variable: performance

aggressiveness was identified as the only dimension of EO which has a significant impact on the performance. This means that the higher the EO in terms of competitive aggressiveness, the better the performance of the organization.

4.4 Individual effect of EO dimension

To check the individual effect of each dimension of EO, ANOVA analyses on the four EO dimensions were conducted. First, the sample group was separated into two groups for each ANOVA analysis by using the mean score of each dimension as a cut-off point between the two groups. Thus, group one consisted of organizations with the lower 50% of EO dimensions and group two consisted of the higher 50% of capability.

As seen in Table 7, there are significant differences between the two groups in terms of autonomy, innovativeness, and competitive aggressiveness. These results imply that: (1) the greater the autonomy, the higher the performance of organization; (2) the greater the innovativeness, the higher the performance of organization; and (3) the greater the competitive aggressiveness, the higher the

Table 7 Result of the ANOVA analysis

EO dimensions	Group by EO	<i>N</i>	Mean	Standard Deviation	<i>P</i> value
Autonomy	Low	63	3.2922	.65732	.026
	High	74	3.5516	.68064	
Innovativeness	Low	66	3.2638	.07569	.005
	High	71	3.5890	.08356	
Risk taking	Low	82	3.3880	.65723	.354
	High	55	3.4984	.71373	
Competitive aggressiveness	Low	70	3.2916	.63949	.013
	High	67	3.5794	.69461	

performance of organization. Although the result was not statistically significant, the ANOVA analysis on two groups separated by risk taking also showed similar results. The results from the ANOVA analyses strongly reinforce the impact of EO dimensions on the service firm performance.

5 Discussion of results

The results of this empirical study imply that EO has an impact on the performance of service business as suggested by previous research. Among the four EO dimensions analyzed, competitive aggressiveness plays the most important role. The size of the organization was also identified as an important factor explaining service firm performance. Since this study assumed that EO of the firm is equivalent to the owner's EO, we measured the owner's EO to obtain the organization's EO. Moreover, the majority of the sample group consisted of small- and medium-sized JFRs that are owned and operated by a single owner. The results show that the owners' level of EO positively influences the performance of the JFR.

The positive relationship between the level of competitive aggressiveness and the performance implies that owners of JFRs that do not avoid competitive clashes and actively adopt competitive strategies by pursuing low-cost leadership and aggressive marketing are achieving higher performance than those with a low level of competitive aggressiveness.

As expected, there was a significant relationship between the size of an organization and its performance. The majority of sample groups consisted of small- and medium-sized JFRs, which started as a venture with few employees and became larger by hiring more employees as their businesses successfully grew. Thus, the greater the size of the organization, the higher the performance.

Autonomy and innovativeness were not identified as significant factors which influence the performance of the organization when multiple regression analysis was conducted. However, results from the ANOVA analyses suggest that autonomy and innovativeness also have a significant relationship with the performance of the organization. According to the results, firms with a higher level of EO in terms autonomy, innovativeness, and competitive aggressiveness showed a significantly

higher level of performance than those with a lower level of EO. However, risk taking was not significant again. We believe that risk taking is ingrained and assumed by the owners of JFRs.

6 Conclusion and limitation

The purpose of this study was to investigate the effect of EO on the performance of service businesses. For this purpose, we investigated the impact of EO on performance by collecting and analyzing the data from the owners of JFRs. The results of this data analysis show that competitive aggressiveness and the size of the organization are the most important factors which influence the performance of service business. Autonomy and innovativeness were also identified as important factors through the additional ANOVA analyses.

The results of this study suggest: (1) the owner's personal attributes have a strong influence on the performance of small and medium sized service businesses and (2) most EO dimensions have a positive impact on the service firm's performance. These findings emphasize the importance of developing EO among the owners of small- and medium-sized service businesses.

This study contains some limitations in terms of external validity since the data were collected only from the owners of a single type of business. It would be meaningful in the future to conduct an empirical research by surveying a wider range of business types. It would also be meaningful to conduct a longitudinal study to observe the impact of EO on the performance of service firms over time. Such analysis can provide some additional insights such as the changing importance of the various EO dimensions through the growth cycle of the organization or different economic conditions. Another interesting study would be to conduct a comparative study of similar service firms in different cultures and markets.

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