



Owner sacrifice and small business growth

M. Kamil Kozan^{a,*}, Dolun Oksoy^{b,1}, Onur Ozsoy^c

^aSchool of Business, St. John Fisher College, 3690 East Avenue, Rochester, NY 14618, United States

^bSchool of Science, University of Ankara, Dogol Caddesi, 06100 Tandogan, Ankara, Turkey

^cSchool of Political Science, University of Ankara, Cemal Gursel Bulvari, 06590 Cebeci, Ankara, Turkey

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ABSTRACT

Owner sacrifice was studied as a key variable for predicting small business growth dynamics. Using Conservation of Resources Theory, three different types of sacrifice were defined: personal, financial, and relational. Their relation to growth was studied on data collected through structured interviews in 852 small firms in thirteen cities in Turkey. Personal sacrifices in time and effort had a positive effect on continuous growth, both singularly and in interaction with firm's environment, size, and strategic planning. Sacrifices in personal finances were negatively associated with continuous growth, which is interpreted as an outcome of internal financing and risk-avoidance by Turkish firms. Sacrifice as a multi-dimensional construct may be invaluable in studying small business growth in cultures with similar characteristics.

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Small business growth and entrepreneurship has been a centerpiece of the liberalization process in world economy (Hitt, Ireland, Camp, & Sexton, 2001) and economic development (Reynolds, Bygrave, Autio, Cox, & Hay, 2003; Wennekers, van Stel, Thurik, & Reynolds, 2005). A shift in emphasis in favor of small firms constitutes a major, and difficult, political and cultural change for countries embedded in century-old models of development based on large bureaucratic organizations (Samal, 2005; Smallbone & Welter, 2001). The need for more studies of entrepreneurial behavior outside of the US that various authors stressed (McDougall & Oviatt, 2000; Mitchell, Smith, Seawright, & Morse, 2000; Zahra & George, 2002) applies even more to developing countries. Economic activity in emerging economies has provided a major stimulus for world economic growth in past years. Growth of empirical studies on entrepreneurship in developing economies, although in its infancy, has been a welcome addition to the literature, and helps towards developing a global knowledge base on entrepreneurship. The present study aimed at contributing to this literature by focusing on owner sacrifice as an important factor in small business growth in an emerging economy.

Growth has been a key variable for distinguishing continued entrepreneurship from mere small business ownership. Drucker (1985, p. 1) defined the entrepreneur as a person who “always

searches for change, responds to it, and exploits it as an opportunity.” This definition emphasizes continuity in growth, and calls for a conceptualization that covers both recent *actual* growth and *intention* to grow in the future. Studying past growth alone may be limiting because it may not always mean an intention to continue growing, while studying growth intentions alone may not depict the continuity in growth. The present study introduces a new conceptualization that depicts this dynamics of growth.

Various small business owner characteristics, such as risk-taking and openness to change, have been studied in the past to explain growth, but with various degrees of success (Chell, Haworth, & Breatly, 1991; Ciavarella, Buchholtz, Riordan, Gatewood, & Stokes, 2004; Cooper, Gimeno-Gascon, & Woo, 1994; Miner & Nambury, 2004; Stewart & Roth, 2001). The present study investigated an alternative construct, owner's willingness to sacrifice valuables, as an important factor associated with small business growth. In order to overcome some of the problems of previous psychological research, the effects of sacrifice were studied along with other firm-related variables. As various authors have stressed, the owner/entrepreneur needs to be studied within a context, and taking into account the interplay of individual, organizational, and environmental variables predicts venture growth better (Baum, Locke, & Smith, 2001; Stewart & Roth, 2001). As will be elaborated later, the present study analyzed sacrifice in conjunction with the size of the firm, the dynamism of the environment in which it operates, and the presence of strategic planning processes.

The following section briefly describes the cultural context within which the study was conducted. Next, a conceptualization

* Corresponding author. Tel.: +1 585 385 8090; fax: +1 585 385 8094.

E-mail addresses: kkozhan@sjfc.edu (M.K. Kozan), dolun.oksoy@oksoy.com (D. Oksoy), Onur.Ozsoy@politics.ankara.edu.tr (O. Ozsoy).

¹ Tel.: +90 312 428 3227.

of growth that covers both past and intended future growth is developed. This is followed by a definition of sacrifice, development of its conceptual basis in terms of conservation of resources theory (Hobfoll, 1989), and justification for the hypotheses relating sacrifice to growth. The remaining sections cover the methodology of the study, its findings, and their theoretical and practical implications.

1. Cultural context

The study was conducted in Turkey, a fast-growing economy with strong trade links with neighboring countries and the EU, and serving as an attractive production base for foreign multinationals (Coşkun, 2001; Erdal & Tatoğlu, 2002). Turkey has witnessed an increased pace of privatization and emphasis on entrepreneurship in recent years. Attempts to create an entrepreneurial class started as early as the fifties, when a section of prominent merchants, as well as large farm owners, responded to the new opportunities to form a new industrialist class (Alexander, 1960). However, the trend gained strength only during the last two decades with increased privatization, deregulation, liberalization of foreign trade and investment, reduction of tariffs, and easing of capital transfers (Aktan, 1997; Etkin, Helms, Turkkan, & Morris, 2000).

Cultural factors undoubtedly provide a context for the degree of success of these economic measures. In the mainstream, the culture exhibits high uncertainty avoidance and collectivism (Hofstede, 1984), the latter including an emphasis on values promoting tight links with in-groups and hierarchical roles for maintaining societal order (Schwartz, 1994). Both collectivism and uncertainty avoidance have been negatively related to internal locus of control, risk taking, and innovativeness, which are indicators of entrepreneurship (Mueller & Thomas, 2001). Turan and Kara (2007) reported that the motivations, business problems, and managerial skills of entrepreneurs in Turkey do not significantly differ from those in a Western culture such as Ireland.

Furthermore, the mainstream cultural characteristics are not uniform across the entire Turkish population. Esmer (1998), in a multi-country survey of moral values, concluded that Turkish society exhibits a mixed and not altogether consistent set of values: Open to change but also conservative, and valuing achievement as much as security and relations at work. Using Schwartz's (1994) value measures, Kozan (2002) described several subcultures in Turkey. Among these is a subculture labeled as "power-seekers," which grew in numbers in the last two decades with the opening of the country to global competition. Equipped with basic values of achievement, acquisition of wealth, and influence, these individuals are likely to take advantage of the growing opportunities for private initiative and entrepreneurship in Turkey.

The effect of close knit family and friends circles found in collectivistic cultures may not always be adverse on entrepreneurship. While weak ties have been linked to innovation and entrepreneurship (Burt, 2000; Granovetter, 1973), arguments have also been advanced for the positive influences of strong ties found in collectivistic cultures. Krachhardt (1996), for example, argued that entrepreneurship benefits from the transfer of intimate and sensitive information and knowledge, and close ties are more effective in providing the trustworthiness such information requires.

2. Growth and owner sacrifice

The dynamics of growth provides a better gauge of entrepreneurship than past growth alone. Past growth has the advantage of having been actualized, and this may serve as a predictor of future behavior. Covering future growth intentions

along with past growth provides a richer picture, as future behavior is also a function of intentions (Ajzen & Fishbein, 1980). Entrepreneurial intentions have been shown to play a crucial role in understanding organizational emergence (Bird, 1979). Mitchell et al. (2000) found that cognitive scripts of entrepreneurs explain a significant amount of variance in venture creation decisions. Davidsson (1991) pointed out that in a small firm operating in an imperfect market, the owner can choose whether to pursue expansion or not, contingent upon gains surpassing expected costs, monetary or intangible. Measuring past growth alone may be limiting because it may not necessarily mean an intention to continue growing, as owners may have found various costs to be prohibiting. Measuring growth intentions alone, on the other hand, may not depict the continuity in growth. Future growth intentions that come at the heels of strong past growth may be the result of different cognitive and emotional processes than growth intentions that try to compensate for poor recent growth.

A two-dimensional model of growth dynamics was developed based on combinations of high and low past growth and future intended growth, yielding four categories. *Continuous growth* includes firms that showed strong growth during recent years and strong intentions to grow in the near future. This category best represented continuing entrepreneurship, with high owner motivation and commitment of firm resources. *Deceleration* category represents firms that had strong past growth but have lowered their anticipated growth for the next few years. This might be a result of situational factors, limited resources, or as Davidsson (1991) suggested, being content with achievements realized and a reluctance to incur the extra costs or sacrifices associated with continuous growth. *Acceleration* category describes firms which were unable to grow in past years, but intend to turn this around in coming years. It represents owner willingness, and commitment of resources, to change past conditions which led to low growth. *Stagnation* category has firms which have shown little past growth, with little intention to change the outlook for the future. It may be result of limited resources as well as a lack of dynamism on the part of the owner.

In predicting growth dynamics, our study focused on owner sacrifice in conjunction with key firm-related variables. Several psychological variables have been researched in the past to explain entrepreneurship, but have provided unequivocal results (Chell et al., 1991; Cooper et al., 1994). In a study of the big five personality dimensions, Ciavarella et al. (2004) found only conscientiousness to be positively associated with long-term venture survival, while openness showed a negative effect. According to meta-analytic studies, the predictive power of risk-taking propensity, as a personality trait, has also been controversial (Miner & Nambury, 2004; Stewart & Roth, 2001). These results support Gartner, Carland, Hoy, and Carl's (1988) earlier argument in favor of adopting a behavioral approach to entrepreneurship instead of focusing on personality traits.

Sacrifices an owner makes provides a behaviorally anchored predictor of growth. Sacrifice will be defined as *the degree to which a small business owner will forego valuables in order to obtain resources to devote to the business*. This definition derives from Hobfoll's conservation of resources (COR) theory which has been advanced and used in stress research (Grandey & Cropanzano, 1999; Hobfoll, 1989, 2001). According to COR, people tend to retain, protect, and build resources, the potential or actual loss of which are seen as threatening. Resources may carry both instrumental and symbolic value. Hobfoll identified four kinds of resources. These served as the basis for conceptualizing and operationalizing a multi-dimensional sacrifice construct in the present study.

Hobfoll (1989) defines object resources as physical resources which are either valued in themselves or because their rarity or

expense confer secondary status value. In terms of sacrifice, threats to this type of resources would cover financial losses or loss one's property. These are not only valuable in themselves, but because they also lead to status loss. Sacrifices involving object resources will be labeled as *financial sacrifices* in the present study. The second kind of resources are personal conditions which are valued or sought after. These may include marriage, tenure, or seniority. In terms of sacrifice, threats to conditions would cover possible adverse effects on the owner's marriage or time-related conflicts with the immediate or extended family. These will be labeled here *relational sacrifices*. A third resource kind is energies, which include time and knowledge. Rather than carrying intrinsic value, energies are instrumental in acquiring other kinds of resources. In sacrifice terms, energies may cover owner's recreation time, time with friends or in social networking, and opportunity costs such as personal or occupational growth through other undertakings. This group will be labeled as *personal sacrifices*. Hobfoll describes a fourth resource kind, personal characteristics, which depict one's personal orientation towards the world, seeing events as predictable and in a positive light. This resource is basically viewed as aiding stress resistance, rather than as a resource to be acquired and protected. In this regard, we will not attempt to map it into our definition of sacrifice, but sacrifice tolerance will be discussed later among suggestions for future research.

On the surface, increased sacrifices may look counterintuitive from a conservation of resources perspective. A key aspect of COR theory is the possible enrichment of resources through investment in other resources. People may invest time and energy in order to acquire more highly valued resources in the future, such as power and money (Hobfoll, 1989). In this way, people adopt a long term-term perspective on resource conservation. When interpreted in this manner, current sacrifices may be justified, to oneself or to significant others, because of the enrichment of resources through business growth in the long-run. A basic principle of COR theory may make the sacrifice process complex: Resource loss is considered to be disproportionately more salient than resource gain (Hobfoll, 2001). The risk of incurring losses in the pursuit of future gains may increase the reluctance of owners towards sacrifices.

The culture in which business owners operate undoubtedly shapes their perspectives on the value of investing now for better resource conservation in the long run. In Hofstede's (1984) words, culture programs the collective minds of its members. COR theory argues that difficulties that lead to stress need to be understood in terms of common cultural interpretations (Hobfoll, 2001).

Sacrifices for future business gains are evaluated in terms of more basic cultural values. Two of Hofstede's dimensions of cultural values may be at play here, collectivism/individualism and uncertainty avoidance. Financial, relational, or personal sacrifices are expected to have different resource loss values in high collectivism and uncertainty avoidance cultures than in individualistic and low uncertainty avoidance ones.

While forces encouraging entrepreneurship do exist in Turkish society, attitudes towards risk-taking may shape the type of sacrifice owners are willing to incur to achieve it. In Turkey, as in other Middle-Eastern Islamic societies, high uncertainty avoidance of the mainstream culture may result in a higher degree of perceived risk for financial sacrifices in comparison to relational and personal sacrifices. As Vogel and Hayes (1998) pointed out, capital users in Islamic societies are generally risk-averse, preferring liquidity, and valuing cash that comes to them sooner rather than later. In Turkey, family businesses expand when they see growth as being feasible through internal means without risking personal assets as collateral for loans (Ozgulbas, Koyuncugil, & Yilmaz, 2006). On the other hand, owners who have been unable to achieve continuous growth through internal resources may be willing to take financial risks for future growth. These considerations led to formulation of different hypotheses for financial sacrifices versus relational and personal sacrifices.

We predicted continuous growth to call for high relational sacrifices, as in time spent with family, and high personal sacrifices, as in increased effort and less leisure time. In finances, however, we did not expect sacrifices to be associated with continuous growth. This expectation is based on owners' reluctance to borrow on personal assets, and preference for financing growth mainly through internal firm resources (Oktay & Guney, 2002; Ozgulbas et al., 2006). Owners of successful businesses, as a result, may not perceive themselves as accepting high financial risks.

Hypothesis 1a. Higher relational and personal sacrifices will be associated with continuous growth in comparison to stagnation, deceleration and acceleration.

Hypothesis 1b. Lower financial sacrifices will be associated with continuous growth in comparison to stagnation, deceleration and acceleration.

As shown in Fig. 1, the model used considered the effect of sacrifice on growth both singularly and in conjunction with environmental and firm related variables. The need for studying interaction effects follows arguments summarized earlier in favor

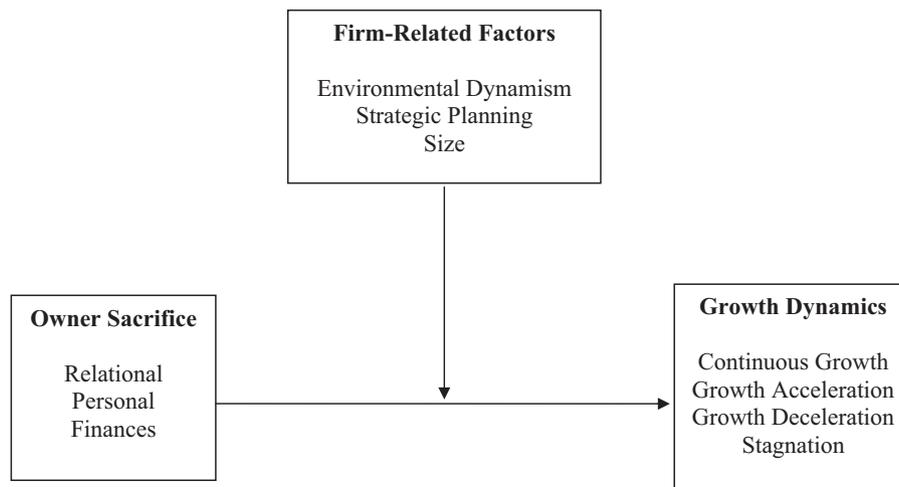


Fig. 1. Owner Sacrifice and Firm-Related Factors as Predictors of Small Business Growth.

of studying the owner/entrepreneur within a context (Stewart & Roth, 2001). Baum et al. (2001) found that taking into account the interplay of individual, organizational, and environmental variables predicts venture growth better than when only multiple simultaneous effects are studied. Roper (1998) found management and control initiatives to depend on the characteristics of the entrepreneur, but initiatives related to new products, markets or management systems to depend partially on the background of the entrepreneur but also on the firm's strategic targets, market position, and operating environment.

We expected main effects to be further reinforced in the presence of environmental opportunities and firm resources and processes that are conducive to growth. We therefore studied the interaction of sacrifice with the dynamism of the particular industry in which the firm operates, the size of the firm, and the degree to which the firm engages in strategic planning activities. The dynamism of firm's environment refers to both opportunities for growth and to uncertainties created by high degree of innovation and change in the industry. Environmental dynamism have been perceived as an important factor in emerging and advanced economies (Kolvereid & Obloj, 1994), and linked to innovative, proactive, and risk taking behavior (Zahra & Bogner, 2000). Owners operating under such a dynamic environment can more easily justify relational and personal sacrifices to self and to be-affected others. However, we expected firms with richer internal resources to be able to respond best to a dynamic environment.

Hypothesis 2a. The joint effect of environmental dynamism and relational and personal sacrifices will be positive on continuous growth in comparison to stagnation, deceleration and acceleration.

Hypothesis 2b. The joint effect of environmental dynamism and financial sacrifices will be negative on continuous growth in comparison to stagnation, deceleration and acceleration.

Firm size is a common factor used in predicting small business growth, albeit with contradictory predictions. Large size may negatively affect ability to learn (Simonin, 1997) and may be an indicator of being content with earnings (Davidsson, 1991). On the other hand, size has been perceived as providing economies of scale and resource sufficiency (Gulati, 1993), which in turn foster growth. The Turkish context favors the latter position. As mentioned earlier, small-to-medium sized firms in Turkey depend heavily on internal resources for growth, particularly in financing (Oktay & Guney, 2002; Ozgulbas et al., 2006) and the know-how needed for adopting modern management methods (Ulusoy & Ikiz, 2001). We expected larger size and sacrifices in conditions and energies to predict continuous growth. On the other hand, borrowing on personal assets, which would constitute financial sacrifices, would be more acceptable to owners of smaller firms that cannot finance growth internally.

Hypothesis 3a. The joint effect of larger size and higher relational and personal sacrifices will be positive on continuous growth in comparison to stagnation, deceleration and acceleration.

Hypothesis 3b. The joint effect of larger size and higher financial sacrifices will be negative on continuous growth in comparison to stagnation, deceleration and acceleration.

Strategic planning was included in the study because it may help channel and discipline the energy and dedication found in high levels of sacrifice. Delmar and Shane (2003) argued that planning helps entrepreneurs in new venture creation, because it enables them to assess knowledge and resource needs, and communicate goals and actions to others. A counter-argument against planning has also been offered, stressing the importance of

action and the unpredictability of new venture creation. Labeled as "bricoleurs" by Baker and Nelson (2005), entrepreneurs make-do with whatever is at hand and construct their businesses through action. Liao and Gartner (2008) findings, on the other hand, support the importance of planning; nascent entrepreneurs who completed a business plan were six times more likely to start a business than individuals who did not complete a business plan. For existing businesses in a developing economy, belief and facility in strategic planning may increase as a result of successful past growth experience. Planning would also increase ownership sense of behavior control, which might offset some of their negative attitudes towards sacrifices. Presence of a strategic planning process, as evidenced by environmental and competitor analysis, long-term planning, annual targets, and operational plans, was expected to channel and enhance continuous growth when coupled by high levels of owner sacrifice in relational and personal sacrifices. On the other hand, for owners unable to achieve continuous growth, financial sacrifices would be easier to justify to self and family members with the existence of a plan.

Hypothesis 4a. The joint effect of strategic planning and higher relational and personal sacrifices will be positive on continuous growth in comparison to stagnation, deceleration and acceleration.

Hypothesis 4b. The joint effect of strategic planning and higher financial sacrifices will be negatively on continuous growth in comparison to stagnation, deceleration and acceleration.

3. Method

3.1. Sample

In thirteen major cities, a list of small businesses was obtained from the registers of the local Chamber of Commerce and Industry and the Chamber of Merchants and Artisans during 2007–2008. A shorter list of 120 firms was compiled in each city, selecting firms from different industries and of different sizes for which probability of access was seen as relatively high. Firms between five and 150 full-time employees were selected. Out of 1560 firms contacted in total, 852 complete responses (55 percent) were obtained. In each firm, the majority owner, or the owner with the largest share, was interviewed. Forty percent of the sample owned 100 percent of the firm, 38 percent owned 50–99 percent of the firm, and 22 percent owned 25–49 percent of the firm.

The distribution of the sample with respect to firm size was as follows: less than 10 employees: 28 percent, 11–15: 30 percent, 16–20: 12 percent, 21–30: 13 percent, and over 31: 16 percent. The percentage distribution of the final sample among the cities was as follows: Istanbul 10, Ankara 8, Izmir 10, Bursa 9, Adana 4, Gaziantep 8, Konya 2, Kayseri 7, Diyarbakir 8, Erzurum 8, Manisa 11, Denizli 8, and Corum 7. A sizable sample could not be obtained in Konya, and to some degree in Adana. Retail businesses constituted 38 percent of the sample, service firms 22, manufacturing firms 14, distribution/wholesale firms 7, professional services 4, construction 4, finance and insurance 3, transportation 2, and other 5 percent. Manufacturing, which has a share of about one-fifth of the GNP, is under-represented because most manufacturing firms have more than 150 employees.

The average owner age was 36.8 and their business experience was 16.2 years, with standard deviations of 9.3 and 9.9, respectively. The average years-of-education was 11.1, slightly more than a high school degree which is earned in 11 years. Male owners dominated the sample with 85 percent, which is a fair representation of small business owners in Turkey. Age, sex, and education characteristics of the sample are comparable to national averages mentioned in an earlier study (Sarıkaya, 1995) and to a

random sample of entrepreneurs drawn from a geographic district (Yetim & Yetim, 2006).

Typical of small business in Turkey was the heavy family orientation of the firms studied. Three fourths had at least one other family member invest in the business. Two thirds of the sample had at least one family member other than owner working for the firm. Very few (less than nine percent) of family members working for the firm have left for another job. Entrepreneurship was also a family tradition for nearly half of the firms; forty five percent had a parent who owned a business. Heavy internal financing tendencies were reflected in low debt to capital ratios; 45 percent had no formal debt, and only 15 percent had debt to capital ratio over .25. The firms were relatively young, with about 42 percent founded during the last decade.

3.2. Measures

Data were collected by means of a structured interview at the place of work. Interviews lasted between 35 and 45 min. Question schedules were compiled from The Entrepreneurial Profile Questionnaire (EPQ) of Pistrui, Welsch, Wintermantel, Liao, and Pohl (2000) for measuring growth and sacrifice, and from Sexton (1997) for measuring strategic planning process and environmental uncertainty. EPQ has been piloted and validated through a series of studies in several countries (Faheed-Sreih, Pistrui, Huang, & Welch, 2009). Its sacrifice items had satisfactory content validity as they covered the resource conservation types of Hobfoll's paradigm. The EPQ and strategy scales were translated into Turkish by two bilingual colleagues working independently, which were checked afterwards for inter-translator consistency for revisions. Sacrifice items and their response scales are shown in Table 1. Items comprising growth, environmental dynamism, and strategic planning scales are shown in Appendix, together with the response categories.

Growth measure followed LeBrasseur, Zanibbi, and Zinger's (2003) approach. This emphasizes the breadth of entrepreneurial activity rather than effective use of resources such as turnover, productivity, and profit margin, which Freel and Robson (2004) favor. The growth items in EPQ are shown in Appendix. Respondents rated growth for the last three years, and their intended growth for the coming three years. A principal

components analysis, conducted on past three years of growth, and using *Varimax* rotation, yielded two components (with initial *eigen* values and variance explained of 6.52 and 46 percent for Component 1, and 1.20 and 9 percent for Component 2; *KMO* = .94, *Bartlett's Chi-square* = 5585.6, *dof* = 91, *p* < .001). The first component, *market expansion*, included such items as adding new products or services, selling to a new market, and expanding promotion activities and distribution channels. The second component, *resource acquisition*, included expanding facilities, upgrading equipment, improving operating methods, hiring specialists, and training. The specific items and their factor loadings are shown in Appendix. Composite scores were obtained for each area in past and future growth using items with loadings over .50 (shown in bold in the table in Appendix).

For each growth area, a *K-means cluster analysis* was conducted using past and future growth scales in that area as input, and requesting four clusters. Identical clusters were obtained for both growth areas. The emerging clusters were next used in a *discriminant analysis* in order to ascertain which growth scale combination defined each cluster. *Discriminant analysis* correctly reclassified the firms (as would be expected from the procedure used) at 99.1 percent accuracy for resource aggregation and 89.9 percent for market expansion. The emerging four clusters fit the original conceptualization of growth dynamics consisting of continuous growth, acceleration, deceleration, and stagnation. While the use of growth categories resulted in some loss of power in what were originally continuous variables, it enabled us to test our hypotheses regarding continuous growth versus other growth dynamics.

Principal components analysis on sacrifice items yielded three components, which are labeled as relational, personal, and financial in Table 1. Items with loadings of .50 or more (highlighted in the table) were used to compute composite indices for each sacrifice component. Appendix gives the items comprising the strategic planning process, environmental dynamism, and need for achievement scales, and their response categories. Firm size, which was measured as number of full-time employees, had a highly skewed distribution, leading us to conduct a logarithmic (ln) transformation before analysis. Descriptive statistics, inter-correlations, and, where relevant, the internal consistency (α) coefficients for all independent variables are given in Table 2.

Table 1
Loadings for sacrifice items.

Items	Sacrifice components			
	Relations	Finances	Personal	Community
<i>In establishing my business I would be willing to incur the following:</i>				
Conflict with the family	76	14	08	60
Lost time with the family	77	18	08	63
Lost time in another profession	67	12	22	51
Risk of total failure in the business	70	10	15	53
The wrath of my family	75	12	09	58
My position in the eyes of my friends	62	27	22	50
Quality time with my children	65	19	08	46
Mortgage my house	32	74	05	64
Borrowing on my assets	26	81	14	75
Willingness to take on additional debt	22	77	04	64
Breakup of my marriage	42	37	-09	32
Loss of significant recreation time	11	46	45	43
Watching my favorite TV program	05	21	69	52
Attending my favorite sporting event	01	19	73	57
Attending to undesirable responsibilities	17	01	73	56
60 h of work per week	06	30	57	42
Acquire new skills at significant personal expense	12	-11	54	32

Notes: Response categories: "strongly agree," "agree," "no opinion," "disagree," "strongly disagree". Method: *Principal Components* extraction with *Varimax* rotation. Initial *eigen* values and percentage of variance explained: 1st factor = 5.67, 31 percent; 2nd factor = 2.31, 13 percent; 3rd factor = 1.51, 8 percent. *KMO* = 875 (Bartlett's), *Chi-Square* = 6174.9, *d.f.* = 153, *p* < 0.01. Numbers in bold indicate loadings above 50.

Table 2
Correlations and descriptive statistics for the independent variables.

Variable	Relational sacrifice	Personal sacrifice	Financial sacrifice	Environ. dynamism	Firm size	Strategic planning	N-Ach	Age	Education
Relational sacrifice	–	.33	.38	.21	–.01	–.09	.14	–.03	.09
Personal sacrifice		–	.24	–.14	–.09	.06	.19	.05	–.04
Financial sacrifice			–	–.01	.05	.10	.22	.04	.01
Environmental dynamism				–	.04	.11	.19	–.07	.06
Firm size (ln)					–	–.05	–.10	–.02	.16
Strategic planning						–	.35	.02	.00
N-Ach							–	–.02	–.02
Age								–	–.25
Education									–
Mean	2.27	3.41	2.43	4.59	20.89	5.79	3.79	36.8	11.1
Standard deviation	.93	.90	1.19	.94	29.33	.86	.71	9.3	
Cronbach's alpha	.86	.76	.82	.71		.80	.79		

Note: Correlations of .07 and above are significant at .05, and those above 10 are significant at .01.

4. Results

In order to test the relation between the independent variables and the dependent variable of growth dynamics, *Multi-nominal Logistic Regression* analysis was conducted in two stages. The first model incorporated only main effects for the sacrifice scales, firm-

related variables, and personal variables. The second model included interaction terms along with the main effects. Interaction terms were products of the sacrifice scales and the scales for environmental dynamism, firm size, and strategic planning. This analysis sequence was carried out separately for resource acquisition and market expansion growth. Tables 3 and 4 compare

Table 3
Multinomial logistic regression coefficients (*beta*) and standard errors (in parenthesis) for resource acquisition.

Variable	Continuous growth compared to					
	Stagnation		Deceleration		Acceleration	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Owner's age	.01 (.01)	.01 (.02)	–.00 (.01)	–.00 (.01)	–.01 (.01)	.00 (.01)
Owner's education	.12 (.12)	.12 (.13)	–.05 (.11)	–.06 (.11)	.03 (.11)	.02 (.12)
Owner's achievement need	.21 (.22)	.30 (.23)	1.42** (.20)	1.48 (.20)	1.48** (.21)	1.51** (.21)
Environmental dynamism	.23 (.14)	.09 (.58)	.48** (.13)	.16 (.50)	.54** (.13)	.45 (.56)
Firm size (ln)	.38** (.14)	.09 (.58)	.08 (.11)	.65 (.48)	.39** (.13)	.20 (.58)
Strategic planning	.58** (.15)	.116 (.66)	.51** (.13)	.21 (.55)	.58** (.14)	.30 (.62)
Sacrifice-Relational	.27* (.12)	–1.64 (.99)	.06 (.11)	–1.08 (.94)	–.03 (.12)	–.90 (.98)
Sacrifice-Personal	.27* (.12)	–1.58 (.95)	.38** (.11)	–.65 (.85)	.03 (.13)	–1.49 (.96)
Sacrifice-Financial	–.31** (.12)	–2.07* (1.00)	–.19 (.11)	–2.17* (.95)	–.13 (.12)	–1.77 (1.02)
Dynamism × relational sacrifice		.08* (.03)				
Dynamism × personal sacrifice				.26* (.11)		
Planning × personal sacrifice		.33* (.14)				
Planning × financial sacrifice				.25* (.12)		

Notes: Pseudo R-square (Nagelkerke)=.32 (Model 1) and .36 (Model 2).

* $p < .05$.

** $p < .01$.

Table 4
Multinomial logistic regression coefficients (*beta*) and standard errors (in parenthesis) for market expansion.

Variable	Continuous growth compared to					
	Stagnation		Deceleration		Acceleration	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Owner's age	–.01 (.01)	–.02 (.02)	.00 (.01)	.00 (.01)	.01 (.01)	.01 (.01)
Owner's education	.15 (.13)	.09 (.13)	–.17 (.10)	–.20 (.10)	–.04 (.10)	–.05 (.11)
Owner's achievement need	.84** (.22)	.84** (.22)	.50** (.17)	.53** (.17)	.45** (.17)	.54** (.17)
Environmental dynamism	.70** (.15)	1.05 (.59)	.54** (.12)	.47 (.47)	.22 (.12)	.15 (.51)
Firm size (ln)	.37** (.15)	.35 (.61)	–.04 (.11)	.23 (.45)	.33** (.12)	.54 (.53)
Strategic planning	.59** (.15)	.33 (.72)	.51** (.12)	.97 (.57)	.42** (.12)	.18 (.60)
Sacrifice-Relational	–.07 (.14)	.81 (1.09)	–.06 (.11)	.23 (.85)	.08 (.11)	–.66 (.82)
Sacrifice-Personal	.38** (.14)	–.35 (1.03)	.49** (.11)	.98 (.85)	.06 (.11)	–.12 (.88)
Sacrifice-Financial	–.10 (.14)	–2.74** (1.05)	–.28** (.10)	–1.52 (.84)	–.20* (.10)	–1.11 (.87)
Dynamism × personal sacrifice		.30* (.14)				
Size (ln) × personal sacrifice		.36* (.14)				
Planning × personal sacrifice				–.32** (.12)		
Planning × financial sacrifice		.25* (.12)				

Notes: Pseudo R-square (Nagelkerke)=.23 (Model 1) and .29 (Model 2).

* $p < .05$.

** $p < .01$.

beta coefficients for continuous growth to the other three categories. A positive coefficient means that the variable in question was higher in continuous growth compared to other growth patterns.

Resource acquisition growth was significantly related to personal, relational, and financial sacrifices, as well as to environmental dynamism, size, strategic planning and achievement need (Overall 1st Model $\chi^2 = 255.1$, d.f. = 27, $p < .001$). The *Pseudo R-Square* obtained was .32 (Nagelkerke). Personal sacrifices were higher under continuous growth in comparison to stagnation and deceleration. Relational sacrifices were higher in continuous growth in comparison to deceleration. Financial sacrifices, on the other hand, were lower for continuous growth in comparison to stagnation.

Market expansion growth was also significantly related to personal and financial sacrifices, as well as to dynamism, size, planning and achievement motive. Overall 1st Model χ^2 equaled 175.7 (d.f. = 27, $p < .001$) and the *Pseudo R-Square* obtained was .23 (Nagelkerke). Personal sacrifices were again higher in continuous growth compared to both stagnation and deceleration. Financial sacrifices were lower in continuous growth firms compared to deceleration and acceleration.

The results support personal sacrifices part of **Hypothesis 1a** in both types of growth, and relational sacrifices part in resource acquisition. **Hypothesis 1b**, which predicted lower financial sacrifice in continuous growth firms, was also supported in both types of growth.

In **Hypotheses 2–4**, the interest was in the interaction of firm-related variables with sacrifice scales. Interaction effects were tested by in Model 2, which included both main and interaction effects. In resource acquisition, Model 2 gave an overall χ^2 of 295.5 (d.f. = 54, $p < .001$), with a *Pseudo R-Square* of .36 (Nagelkerke). In market expansion, Model 2 gave an overall χ^2 of 221.4 (d.f. = 54, $p < .001$), with a *Pseudo R-Square* of .29 (Nagelkerke). **Hypothesis 2**

involved interaction effects for sacrifice and environmental dynamism. Under a dynamic environment, higher personal sacrifices were reported by firms achieving continuous growth in comparison to stagnated firms in market expansion, and in comparison to decelerated growth firms in resource acquisition. A dynamic environment also increased relational sacrifices for achieving continuous growth in resource aggregation in comparison to stagnated firms.

Hypothesis 3 involved the interaction of size and sacrifice scales. Results in Model 2 were insignificant except for personal sacrifices in market expansion alone. Here size interacted with personal sacrifice in distinguishing continuous growth firms from stagnated firms.

Hypothesis 4 involved interaction effects for strategic planning and sacrifice. Personal sacrifices increased with strategic planning for continuous growth in comparison to stagnation in resource aggregation. This interaction effect is illustrated in the top portion of Fig. 2. However, in market expansion, when comparing continuous growth to deceleration, the interaction of planning and personal sacrifice was reversed. Contrary to the hypothesis, personal sacrifices, when coupled with increased planning, was higher under deceleration compared to continuous growth in market expansion. Planning also reversed the effect of financial sacrifices. While its main effect was negative, financial sacrifices interacting with planning was positively associated with continuous growth in comparison to deceleration in resource aggregation (shown in the bottom portion of Fig. 2) and in comparison to stagnation in market expansion.

5. Discussion and conclusions

Personal sacrifices, as a main effect, were a consistent predictor of continuous growth compared to stagnation and deceleration. Both stagnation and deceleration indicate low growth intentions for the future. The sacrifices involved in both resource acquisition and market expansion called for continuous hard work, and required sacrifices in leisurely activities and socializing, which comprised the core of the personal sacrifice scale. In contrast to personal sacrifices, relational sacrifices, which mostly involved family, were less of a factor, explaining stagnation in resource aggregation only. The overall level of relational sacrifices was also lower than personal sacrifices. A plausible explanation for the differences found in the effects of personal and relational sacrifices may be the collectivism of the culture, with its emphasis on family relations. A question that needs to be addressed in future studies is whether family is sacrosanct in a collectivistic culture, and sacrifices, when needed, are shown mostly in personal time and effort.

Making financial sacrifices now for future enrichment of resources did not apply in the present setting. A consistent finding across both types of growth was the inverse relation of financial sacrifices to continuous growth (the only exception occurred when strategic planning was present). The risk aversion of businessmen in Islamic societies, which was mentioned earlier (Vogel & Hayes, 1998), may explain the negative role of financial sacrifice in continuous growth. In contrast to finances, personal sacrifices, which were positively associated with continuous growth, do not represent a particularly strong source of risk to the owner. If supported with additional research in other Islamic societies, the risk-averse tendencies of small business owners may present an important qualifier and refinement to the literature based on Western studies that emphasize economic risk taking as an integral part of entrepreneurship (Das & Teng, 1997; Lee & Peterson, 2000; Lumpkin & Dess, 2001).

As a cautionary remark, a distinction should be drawn between new startups versus growth of existing small firms which was the subject of this study. Kropp, Lindsay, and Shoham (2008), for example, argued that risk taking may have a more important role

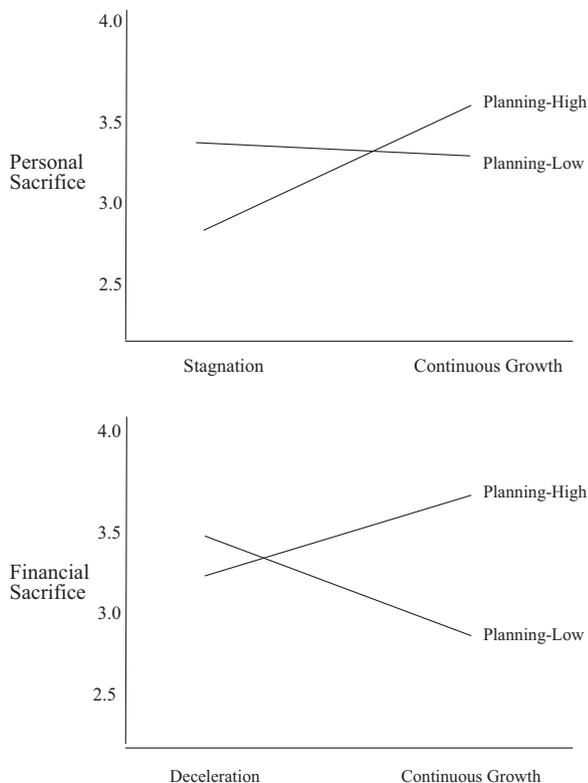


Fig. 2. Interaction Effect of Strategic Planning and Personal and Financial Sacrifices on Resource Aggregation.

when considered in the context of the initial stage of starting an international entrepreneurial business venture. Future research may test whether financial sacrifices are lower in continuous growth of existing firms, as was the case in Turkey, but not so in nascent entrepreneurship.

A second qualifier to be considered in future research is the role of firm-related variables such as strategic planning and the environment. The expanded models including interaction effects provided further clarification to the role of sacrifice in predicting growth. The role of personal sacrifices was enhanced in the presence of firm characteristics that provided the necessary resources or the opportunities for growth. Environmental dynamism, which is likely to lead to perceptions of richer opportunities, increased the likelihood of personal sacrifices. On the other hand, strategic planning reversed the tendency to avoid financial sacrifices; avoidance turned into willingness to incur financial sacrifices with strategic planning. The interaction effects involving strategic planning were mixed for personal sacrifices. While strategic planning enhanced personal sacrifices for continuous growth in resource aggregation, it had a reverse effect under market expansion. Deceleration represents intention to slow down after high past growth. The reversal is unique to market expansion, which may require extensive time commitments such as travel. It is plausible that high personal sacrifices undertaken for recent growth may have led to a slow-down when the means-ends analysis provided by planning did not justify further sacrifices. The interaction effects found indicate that taking into account the interplay of individual and organizational variables, as Baum et al.'s (2001) have argued, added further explanatory power to the analysis.

Thirdly, the *personal characteristics* component of COR can serve as a contingency factor in future research. Sacrifice tolerance of the owner would affect perceptions of sacrifices made, and may be used as a control variable to improve the power of the sacrifice measures in predicting small business growth.

Our findings provide support for an important premise of conservation of resources theory. Hobfoll (1989) argued that people may invest time, energy, and money in order to acquire more highly valued resources in the future. While sacrifices lead to erosion of current resources, they must have been justified because of the likely gains in the future. Investment behavior, as in financial sacrifice, was more likely when strategic planning enabled the owner to justify them. Consequently, the investment component of resource acquisition theory may be contingent upon whether or not conditions and plans exist for their success. Similarly, cultural values may be a contingency factor in investment behavior. Investment of money for future gain, when considered alone as main effect, did not apply in the present cultural context. Future studies of investment behavior in high uncertainty avoidance cultures can shed further light on the investment component of COR theory.

The relation between sacrifice and growth dynamics may also be studied with the loss- and gain-spirals perspective found in COR theory. Spirals refer to the cyclical reciprocation of losses and depletion of resources, or gains and enhancement of resources. High personal sacrifices in continuous growth firms may be seen as a gain spiral, where sacrifices may have led to high growth which in turn encouraged further sacrifices for future growth. Stagnation, in contrast, may be interpreted as a loss spiral, where low growth due to low sacrifices may discourage sacrifices in the future. Breaking a loss cycle, as in acceleration, may require particular consideration for future research. Longitudinal studies of various growth patterns, such as stagnation, continuous growth, and acceleration, are needed to better understand spirals in sacrifice-growth relationship.

The present findings suggest that sacrifice may be a valuable construct in research on small firm growth. It may serve as an

alternative to, or complement, related constructs used in entrepreneurial research, such as risk-taking behavior and work-family interface issues. Risk taking has been advanced as a component of entrepreneurial orientation (Das & Teng, 1997; Lumpkin & Dess, 2001) and among traits that motivate entrepreneurs (Mueller & Thomas, 2001). While sacrifice involves risk, particularly in finances, it conceptually covers a broader set of behaviors. As mentioned earlier, commitment of time and effort, as in long working hours, may not be perceived by the owner as involving high risk. Sacrifice may also lend itself to be measured in more concrete terms than risk-taking propensity. Shaver and Scott (1991) argued that the Choice Dilemmas Questionnaire, which is frequently used to gauge risk-taking propensity as a personality variable, was not originally developed as a personality measure. They further advised that the person, acting in a specific setting, should be studied rather than personality. Sacrifice may constitute such a behaviorally anchored measure.

Sacrifice also differs from work-family issues covered in entrepreneurial research. Parasuraman and Simmers (2001) reported that self-employed persons experienced higher levels of work-family conflict and lower family satisfaction than organization employees. However, Jennings and McDougald (2007) noted differing perspectives on work-family conflict. While the more prominent view is the mutual incompatibility of the two, an opposing view focuses on the benefits of multiple roles, with the potential for positive spillover of emotions, attitudes, and behaviors. In this latter view, family-work interface issues would not present a sacrifice for the entrepreneur. Thus, sacrifice encompasses various time-related issues, but it covers them to the extent they involve giving up valued time. Given the differences between sacrifice versus risk taking and work-family issues, it may be worthwhile to investigate the convergent and discriminant validity of the sacrifice measure together with these constructs in a future study.

6. Limitations

The dependent variable, growth dynamics, was measured only at a particular cross section of time. This shortcoming may be overcome in future studies by measuring past growth and entrepreneurship predictors at a certain period in time, followed by measurement of actual, rather than intended, growth a few years later. Additional shortcomings pertained to the sample and measures. Even though it was large and had good regional and industry representation, the sample was not randomly chosen. Furthermore, the dependent variable and several independent variables were measured via subjective responses from the same respondent, the owner. As a result, it was open to common source bias. In addition, the time of interviews preclude causal interpretation. Although termed as the independent variable, sacrifice was measured after one of the components of the dependent variable, past growth, had already occurred. It is plausible that past growth itself may have influenced the perceptions of sacrifices made. The results should therefore be interpreted as associations between growth dynamics and the hypothesized variables rather than as causal connections.

7. Managerial relevance

These limitations notwithstanding, the study's findings may have practical uses for policy makers and managers of financial institutions. In order to facilitate growth, support should be provided to firms operating in a dynamic environment, with the appropriate strategic processes, and owners willing to show sacrifices in time and effort. One problem in doing so is the intangible character of sacrifice, which hardly qualifies it as a

material guarantee that lenders seek. Improving the managerial and financial practices of owners who are interested in growing their businesses should be feasible. This may pave the way for securing loans from banks. Owners who do believe in strategic planning and who are willing to make sacrifices in time and effort are the most likely candidates to attend seminars and work-shops to be provided by the government or businessmen's associations. Since owners with these characteristics are also more inclined for growth, further educating them to change, or strengthen, their practices would make it possible for lenders to support the owners with greatest potential to grow. As Liao and Gartner (2008) found, entrepreneurs who contacted, and participated in, government-sponsored entrepreneurship programs were much more likely to start a business than those who did not seek assistance.

Increased opportunities for training may also help with utilization of existing financial opportunities which go unnoticed by most owners. For example, a credit guarantee fund has been established in Turkey to help small businesses with collateral requirements of banks and the resultant high interests charged when these could not be met fully. However, Oktay and Guney's (2002) survey of small businesses showed that most owners lack

knowledge of such a fund. They further report that venture capital was not a well-known or popular form of financing, either. Similarly, financing through factoring or leasing accounted for less than five percent of financing of small firms.

The lending policies of banks may also need to be changed to complement educational efforts for better managerial practices. Berry, Grant, & Jarvis (2004) contrasted the *going-concern* approach to lending by continental European banks operating in the UK versus the *gone-concern* approaches of UK banks. Turkish banks' policy of looking for collateral and security represents a *gone-concern* approach. In contrast, a *going-concern* approach would involve collecting information about the future prospects of the SME, for example, via interviews on strategic plans, accounting information, and industry or market data. The *going-concern* approach, although it requires a major cultural shift for lenders, may provide the impetus needed for small business growth in developing countries. Government sponsored banks specializing in loans to small businesses may be a first step in this direction. In conclusion, various measures are available in order to support owners who are willing to sacrifice time and effort for growth, but want to manage the financial risks involved carefully.

Appendix

A.1. Growth scale items and factor loadings.

	Market expansion	Resource acquisition	Communalities
During the last three years our business ...			
added new product or service	79	11	63
sold to a new market	79	22	68
added operating space	60	45	57
expanded distribution channels	71	30	59
expanded advertising and promotion	59	41	52
upgraded computer systems	34	63	51
replaced present equipment	21	71	54
expanded current facilities	28	70	57
added specialized employees	25	69	54
offsite training for employees	12	70	51
redesigned operating methods	20	70	53
sought additional financing	31	63	50
sought professional advice	27	69	54
expanded scope of operations Cronbach's	42	57	50
Alpha for composite scale	.83	.88	

Notes: Response categories: "strongly agree," "agree," "no opinion," "disagree," "strongly disagree" Method: Principal Components extraction with Varimax rotation. Initial eigen values and variance explained: 1st factor = 6.52, 46 percent, 2nd factor = 1.20, 9 percent. KMO = .94 (Bartlett's), Chi-square = 5585.6, d.f. = 91, $p < .001$.

A.2. Strategic planning scale

How much emphasis does your firm place on each of the following components of the strategic planning process?

1. A mission statement
2. Business plans
3. Environmental analysis
4. Competitor analysis
5. Long-term plans
6. Annual goals and action plans

Response categories: (no emphasis) 1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7 (very strong emphasis).

A.3. Environmental dynamism scale

How strongly do you agree or disagree with each of the following statements regarding the nature of competition within the primary industry in which your firm competes?

1. The rate at which products or services become obsolete is very high
2. Customer needs and market demand fluctuate widely in unpredictable ways
3. The industry is very risky and one bad decision can mean my company's undoing
4. The industry is growing rapidly and rich in investment opportunity
5. There is little my company can do to counter strong competitive forces
6. The industry environment is very technologically sophisticated and complex

Response categories: (strongly disagree) 1 2 3 4 5 6 7 (strongly agree)

A.4. Achievement motive scale

To what extent do the following constitute a reason to go into own business?

1. To create something new
2. To continue learning
3. To have freedom to put ideas to work
4. To find better opportunities in my work
5. To utilize my education and skills
6. To be a part of a group of entrepreneurs
7. To contribute to society

Response categories: (strongly disagree) 1 2 3 4 5 (strongly agree).

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