Do Business Demographics Matter to Nascent Venture Performance? A Longitudinal Evidence from the Kauffman Firm Survey

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ARTICLE INFO	ABSTRACT
	Scant literature exists on impact of organizational demographics on nascent venture performance. Business demographics were looked at through the lenses of organizational traits, resource-based view and population ecology theories. The combined as well as the individual longitudinal impact of five business demographics (nature of product, primary location of business, number of active owner-operators, business legal status and technological orientation) on nascent venture performance was examined. 754 out of the 863 businesses that survived cleaning of the first four years of the Kauffman Firm Survey (KFS) dataset were retained in the analysis sample to maintain the original sample stratification of the data set. Results of multiple regression revealed that business demographics globally had significant effect on nascent venture performance in year-2 and year-4 of first four years of existence of the cohort of businesses studied. Three of the individual business demographics indicators, namely: nature of product, business legal status and technological orientation also had significant but inconsistent effects on nascent venture performance across the four years under study. The study threw light on the longitudinal effects of business demographics on nascent venture performance and drew attention to the fact that business demographics can theoretically be envisioned through the lenses of trait theory, resource based view and population ecology theory.

Introduction

What readily comes to mind when the term 'demographics' is mentioned in academia or business circles are human population characteristics such as; age, income, ethnicity, zip code, level of education and gender (Forsythe & Shi, 2003; Xue & Harker, 2002) that are often used to craft business strategy or to inform marketing decisions. However, with a little stretch of imagination, the theory of population ecology (Hannan &Freeman, 1986) would suggest that the distinguishing characteristics of businesses as entities within organizational ecological systems can also be described as business demographics or traits (Brush et al, 2008; Delmar & Shane, 2006; Kauermann et al., 2005). Scant literature exists on business demographics and organizational traits. Extant literature tended to explore the impacts of organizational characteristics such as firm size, organizational structure and type of industry on business performance.

Moreover, there is hardly evidence in the literature suggesting that prior studies have simultaneously investigated the impacts of business legal status, individual versus team founding of business, primary location of business, nature of product and technological orientation on nascent venture performance. This study therefore sought to bridge this gap in the literature by longitudinally examining the combined effect of these five business demographics on nascent venture performance. The Kauffman Firm Survey (KFS)[2] dataset was used to conduct this study. The longitudinal approach added methodological rigor to the study (Davidsson, 2006)and business demographics was viewed through the lenses of trait, resource-based view and population ecology theories. This added new perspectives to the three theories, while explicating the impact of the five business demographics on nascent venture performance.

Literature Review and Theoretical Consideration

The nature of product-offering of a firm constitutes an important dimension of a firm's demographics (or traits) as well as business strategy. Product nature can be basically dichotomized into either services or goods, durable or non-durable products and industrial or consumer products. There are differences between the attributes of services and goods that pose challenges to the performance of nascent ventures as well as mature firms (Brentani, 1991).

Physical products have the advantage of tangibility and potential buyers can see and feel the product. Goods can be inventoried to meet demand fluctuations. Goods can also be standardized and mass-produced to consistently meet buyer expectations. They can be transported and consumed without the presence of the producer (Brentani, 1991). Nonetheless, goods require more investment in plant, research and development. New physical products may take a relatively longer time to develop than new service products. The financial resources required to set up a manufacturing plant can be colossal and difficult to acquire (Brentani, 1991).

Even though service providers are challenged by the intangibility of their products, nascent firms that provide services are capable of achieving relatively high performance levels if they conduct excellent marketing research, plan properly (Murphy & Robinson, 1981) and design services that satisfy customer needs; meet or exceed customer expectation (Shostack, 1984). Service providers can also attempt to standardize their products to ensure some degree of consistent service quality by designing and using efficient and effective standard operating procedures (Chase, 1983). When a service firm creates an efficient delivery system (Beckwith & Fitzgerald, 1981) and develops a well-trained customer focused frontline staff (Schneider & Bowen, 1985), the firm is likely to succeed in carving a consistent image of quality in the minds of customers. Such strategy blend can enable a nascent service-provider gain competitive advantage and perform well.

However, innovations by service firms (Voss et al., 1992),particularly product innovations (Sundbo, 1997); can be much more easily imitated, while manufacturing firms can more easily protect their product innovations with patent (Naslund, 1986). Competitors of service firms may, however, not find it easy to copy organizational and information technology process-innovations of service firms (Sundbo, 1997). From the above synthesis of the literature, it is obvious that product strategy (be it goods or services) may and can have an impact on firm competitiveness and nascent venture performance. Thus it is hypothesized that:
> **H₁: Nature of product offering will impact nascent venture performance.**

Choice of product strategy alone will not necessarily enhance nascent venture performance. The resource-based view has emphasized the importance of choice of location in influencing the performance of gestating firms (Schutjens & Wever, 2000). Geographical location of businesses is known to affect a firm's competitive position (Folta, Cooper & Baik, 2006). Firm location may be classified into either urban or rural, industrial cluster or a stand-alone; and home-based or away from home locations. One of the reasons that may compel a nascent entrepreneur to initially set shop at home may be to minimize personal risk by maintaining a full-time job, while working on the new venture gradually until it shows signs of sustainability (Brush et al., 2008). Work-family-balance needs (Vesper; 1990) of a nascent entrepreneur could also influence the decision to run a new business from the owner's residence. Financial constraints requiring the need to minimize costs or to bootstrap in a home incubator so as to make a quicker transition to a more formal location (Brush et al., 2008) could also be a good reason to run a nascent business from the home.

On the other hand, the decision to locate a business away from home may be influenced by the nature of the business, resource requirements and government policy. For instance, a manufacturing enterprise will require bigger space, while a retail business and a wholesale venture should be conveniently located near customers (Brush et al., 2008). Government policy may also require that certain industries are located outside residential areas. The location of a new business away from the home can be sub-categorized either as stand alone or cluster locations. Stand alone locations are likely to benefit a monopolistic business, such as a manufacturing plant seeking to locate near a major resource source, or a superstore seeking to position itself conveniently at a location accessible to target customers.

Cluster locations may be more beneficial to businesses such as small retail organizations that are seeking to maximize customer traffic in a mall. Restaurant, hotel and motel businesses also tend to co-locate in

geographical clusters to optimize demand (Canina, Enz & Harrison, 2005). It is clear from the above review of the literature that several factors may influence the choice of business locating and location decision can particularly be crucial to the survival and performance of a nascent business. It is therefore hypothesized that:

H₂: Choice of location will have an impact on nascent venture performance.

Prevailing literature on active involvement of owners in running nascent businesses has concentrated mostly on the individual as a sole crusader striving for economic success (Harper, 2008). The individual perspective supported by notable scholars, such as Kirzner (1979) and Casson (1982), stressed that it is the individual's "knowledge, alertness and creativity" (Harper, 2008) that drives opportunity recognition and exploitation. In effect, nascent venture performance depends more on the individual entrepreneur than founding-team effect.

Contrary to the above assertion, growing research findings on team impact on nascent venture performance suggests otherwise (Chowdhury, 2005; Harper, 2008). Compelling evidence from empirical studies indicates that businesses founded by two or more active owners are more likely to perform better than ventures founded and operated by an individual (Weinzimmer, 1997). Interaction among multiple founder-operators can promote creativity and innovation (Sethi, Smith & Park, 2002) in a nascent venture. A nascent business managed by a team of owner-operators may also benefit from diversity in opinion, sounder decision-making through debate, and complementary skills in its management team (Murninghan & Colon, 1991).All these factors are likely to have positive impact on nascent venture performance.

However, other scholars cautioned that groups can also have dysfunctional effect on organizations (Pelled, Eisenhardt & Xin, 1999), including nascent ventures. The potential benefits of human capital that is supposedly associated with group benefits may not actually be taken advantage of by nascent ventures (Chowdhury, 2005). Groupthink, dysfunctional conflict and responsibility shifting by individual team members could diminish team commitment and effectiveness (Chowdhury, 2005). From this perspective, team founding can adversely affect nascent venture performance. Overall, it can be concluded that the number of active owners involved in managing a new business could have effect on nascent businesses performance, but the direction of effect could go either way depending on other factors. Therefore, it is hypothesized that:

H₃:Number of active owners involved in business operations will have an impact on nascent venture performance.

Kauermann et al. (2005) found that among other factors, choice of business legal form affects the performance of nascent ventures. Berger and Udell (1995) referred to business legal form as governance structure and asserted that it affects a nascent enterprises' ability to access loans. This is because financiers, particularly banks, take such information into consideration in determining cost of borrowing and collateral requirements. Thus a business start-up's legal status can impact accessibility to capital, cost of capital and ultimately financial structure of a nascent enterprise.

Business legal status is also an important determinant of innovation (Lee, 2003). Using data covering the years 2000 and 2001 in a study of 749 manufacturing firms in Malaysia, Lee (2003) found that private and publicly listed limited liability companies manifested higher significant propensity to innovate compared to sole proprietorship and partnership firms. It is obvious from the literature that the legal status of an emerging business could have an effect on firms' financial and innovative capacities and these could cascade on nascent venture performance. In light of the above, It is hypothesized that:

H₄: Business legal status will impact nascent venture performance.

There is a weak linear relationship between technological orientation and nascent venture performance (Wagner, 1984) in the literature. Schutjens and Wever (2000) pointed out that findings from research surrounding technological orientation suggest that technology can be a mixed blessing. Thus, though high technology can amplify the performance of a business, it can also increase business risk; potentially leading to failure. According to Thornhill (2006), high technology orientation increases the chance for innovation in firms, which may consequently result in revenue growth and higher performance of nascent ventures across different types of industries. Thus when a nascent business possesses significant knowledge assets, it is capable of introducing new innovative products in the market that could give it first-mover advantage and competitive edge (Lieberman & Montgomery, 1988; Thornhill, 2006).

Chandler and Hanks (1994) and Mahoney and Pandian (1992) on the other hand examined nascent low technology oriented firms and concluded that performance of such businesses is driven principally by market attractiveness, resource-based capabilities and multiple strategies. Compared with high-technology nascent enterprises, Kakati (2003) found that the performance of low-technology businesses is primarily dictated by entrepreneur quality, multiplicity of resource-based capability and competitive strategy. Thus, depending on other factors, choice of technology orientation does impact venture performance. With compelling evidence from the literature, it is hypothesized that:

   H$_5$: Technological orientation of nascent businesses will impact their performance.

Methodology

The Kauffman Firm Survey (KFS) dataset was the source of data for this study. The cut-off point of the data was the first 4-years (rounds) of the KFS. The KFS was conducted by Mathematica Policy Research, Inc. (MPR); a professional research firm of repute. Data collection was meticulously planned by MPR working in collaboration with a team of academic experts and sponsored by the Erwin Marion Kauffman Foundation (EMKF). The data represented a comprehensive sample of cohort of businesses that started in the United States in 2004. The unit of analysis is firm level.

Since it was not possible to conduct an experiment that allowed the control of extraneous variables while studying the subjects of interest, a passive longitudinal approach was used to conduct the study and this enabled triangulation of data by polling the subjects multiple times to test causal relationship between the independent variables (Business Demographics) and the dependent variable (Nascent Venture Performance) (Dwyer, 1983). Emphasis was placed on the general and group centeredness. This nomothetic approach allowed the use of quantitative technique (Luthans & Davis, 1982; Scandura & Williams, 2000)to enhance the scientific nature of the study.

Sampling
The targeted size for the baseline Kauffman Firm Survey was 5,000 new businesses to be made up of 3,000 high and medium technology businesses and 2,000 non-technology businesses. The overall achieved sample size contained 4,928 businesses. Thus, the attained response rate was approximately 99% of desired. The achieved sample size in the baseline KFS equals about 2% of all the new businesses on record to have commenced business in the United States of America in 2004 according to the Dunn & Bradstreet (D&B) database used as sample frame. This proportion seems fairly representative of the population of interest. However, for the purposes of this study, many of the new businesses (sample units) contained missing data and had to be deleted from the original sample, leaving 862sample units without missing data. This number is nevertheless fairly adequate to allow meaningful statistical analysis.

The remaining cleaned data was further sub sampled in a proportional manner to essentially retain the stratification of the original sample in the analysis sample, and to as much as possible utilize in the analysis sample nearly all the remaining sample units that do not have missing data. Thus to maintain the original sample stratification; all the 17 women-founded high-technology firms, all the 40 women-founded medium-technology firms and all the 80 women-founded low-technology firms that remained without missing data after the data cleaning exercise were retained in the analysis sample. Random sampling was then employed to select 92 out of the remaining 131 male-founded high-technology business, 162 out of the remaining 205 men-founded medium-technology businesses and 362 out of the remaining 390 men-founded low-technology business that respectively contained no missing data. This resulted in754 (88%) of the sample units without missing data being included in the final analysis sample(See Table 1 below).

Independent Variables Measurement
The independent variables capturing business demographics used in the study are: nature of Product (Reidenback & Grubbs, 1987), Primary Location of Business (Folta, Cooper & Baik, 2006), Number of Active Owner-operators (Harper, 2008), Business Legal Status (Kauermann et al., 2005; Berger & Udell, 1995), and Technology Orientation (Lieberman & Montgomery, 1988; Thornhill, 2006).

Nature of product Measurement
Nature of Product was not captured directly in the KFS as a single variable. It was represented as two variables; namely, Service or Physical Product. Each of the two original variables was captured as a

dichotomous dummy variable. If 'Yes' was the answer to provision of service, it was coded 1 and if 'No' was the answer; it was coded 0 in the KFS dataset. The same coding applied to provision of goods as well. However, some sample unit firms indicated they provided both services and goods in the original dataset and had 1 entered against their names for goods and services as well. In order to create a single dichotomous dummy variable for Nature of Product to suit this study, firms that purely provided services were dummy-coded as 1 and firms that provided physical products solely or sold both goods and services were dummy-coded as 0 (Cohen, 1968).

Table 1: *Maintenance of Original Sample Structure in Sub-Sample for Analysis*

Original Sample Stratification			Number of Sample Units Remaining After Cleaning	Post Cleaning Sub-sample Stratification	
Original code	Sample stratum	Percentage of original sample		Number of firms selected for analysis	Percentage selected stratum constitutes of sub-sample
101	Hi-tech women	2.01	17	17	2.2
102	Hi-tech men	12.2	131	92	12.2
201	Medium-tech women	5.5	40	40	5.3
202	Medium-tech men	21.5	205	162	21.5
301	Low tech women	10.5	80	80	10.6
302	Low-tech men	48.3	390	362	48
Total		100	862	754	100

Primary Location of Business Measurement

Primary location of business (PLB) was captured in the original KFS as a categorical variable of five classes with five original codes as shown in Table 2. Since the original codes assigned to PLB in the original data has no metric value, it became prudent to dummy-code the variable into a dichotomous variable to make it amenable to statistical analysis (Cohen, 1968). Therefore, all businesses that were operating from the home environment were re-coded 1; while all other businesses that were operating from outside the home were re-coded 0 (see Table 2. below).

Number of Active Owner-operators Measurement

Measurement of Number of Active Owner-operators (NOAO) involved in running their businesses in the original sample was appropriately captured as continuous metric data and did not require any further recoding or transformation in order to be used for statistical analysis. Therefore, data for the variable was adopted without any modification.

Table 2. *Original KFS Primary Location of Business Categorical Codes and Re-codes*

Primary Location Category	Original Code	Recode
Residence such as home or garage	1	1
Rental or leased space	2	0
Space at which business was purchased	3	0
Site where client is located	4	0
Some other location (specified)	5	0

Source: Shane, Robb & Mathematica Policy Research Inc. (2007). *Kauffman Firm Survey 2005/2006-Baseline/First Follow-up*. Study Metadata Documentation (modified).

Business Legal Status Measurement

Business Legal Status (BLS)was captured in the KFS as a discreet categorical variable of seven nominal properties as presented in Table 3. Due to the fact that the categories of BLS do not have metric value and could not be used in their nominal form for meaningful statistical analysis, they were re-coded into a two-level dummy variable to enable them to be utilized in statistical analysis (Cohen, 1968). All business legal forms that did not have limited liability characteristics were classified into one category and dummy-coded as 1, while all other business forms that possess a limited liability attribute were grouped into another category and dummy-coded 0. Thus, Sole Proprietorship, General Partnership and Something Else formed a category, while Limited Liability Company, S-Corporations, C-Corporations and Limited Liability Partnerships were grouped into the other category (see Table 3).

Table 3: *Original Codes of Business Legal Forms in the KFS and their Recodes*

Category of Business Legal Form	Original Code	Recode
Sole Proprietorship	1	1
Limited Liability Company	2	0
Sub-chapter S-Corporation	3	0
C-Corporation	4	0
General Partnership	5	1
Limited Partnership	6	0
Other	7	1

Source: Shane, Robb & Mathematica Policy Research Inc. (2007). *Kauffman Firm Survey 2005/2006-Baseline/First Follow-up*. Study Metadata Documentation (modified).

Technological Orientation Classification Measurement

Technological orientation classification (TC) in the KFS was defined in line with the North America Industrial Classification (NAIC) categorization and in line with Hadlock, Hecker and Gannon (1991). These classifications are High-tech, Medium-tech and Non-tech categories. In order to ensure adequate high technology and female nascent entrepreneur representation in the original KFS, technological classification was combined with gender to stratify the sample. This resulted in a variable in the original KFS dataset called sample strata. The original sample-strata variable was coded in hundreds; with the hundredth property of each code representing technological class of the respondent firm, while the unit property of the code represented the dominant gender of the founder(s). For the purposes of this study, the original stratification was decoupled into gender and technological classes as shown in Table 4 and the technology component was extracted and subsequently recoded as a two level dummy variable.

The three technology classification codes (100, 200 and 300) listed in Table 4 contains only descriptive properties that render them unusable for statistical analysis. This is why they were converted into a single continuum technology-orientation variable. At one extreme were placed medium-to-high-technology firms and at the other extreme was positioned low-technology businesses. Medium and high technology firms forming the higher technology oriented groups were dummy-coded as 1, while low technology firms were dummy-coded 0. Dummy-coding therefore enabled the technology orientation variable to be included in the statistical analysis in spite of its original none-computational descriptive property (See Table 4 below).

Table 4: *Decoupling of Technological and Gender Classification Codes*

Original Sample Stratum	Original Code	Separation of Code into Gender and Tech. Category			
		Technology Category		Owner Gender Category	
		Class	Code	Gender	Code
Women Owned High-Tech Business	101	High-Tech	100	Women	1
Non-Women Owned High-Tech Business	102	High- Tech	100	Men	2
Women Owned Medium-Tech Business	201	Medium-Tech	200	Women	1
Non-Women Owned Medium-Tech Business	202	Medium-Tech	200	Men	2
Women own non-Tech Business	301	None-Tech	300	Women	1
Non-Women Owned None Tech Business	302	None Tech	300	Men	2

Source: Shane, Robb & Mathematica Policy Research Inc. (2007). *Kauffman Firm Survey 2005/2006-Baseline/First Follow-up*. Study Metadata Documentation (Modified)

Data Analysis

The analysis sample was tested to ensure it satisfied assumptions underlying use of multiple regression techniques. These assumptions are data distribution normality, homoskedasticity, linearity of the data and absence of co-linearity among variables in the study (Hair et al., 2010; Mendenhall & Sincich, 2003). All the

assumptions were fairly met. Histograms fitted with normal curves for the metric variables were fairly normal with skewness within $\pm$ 1 and kurtosis within $\pm$ 3. Test of homoskedasticity and linearity were done by plotting the standardized residuals (ZRESID) as the dependent variable against the standardized predicted values (ZPRED) as the independent variable for all the four years and they generally clustered within $\pm$ 3 standard scores from the zero mean with a few outliers (Hair et al., 2010; Mendenhall & Sincich, 2003). Thus the data exhibited a fairly robust homoskedasticity and linearity.

Results

Global Effect of Business Demographics on Nascent Venture Performance

The global effect of the five business demographics (nature of product, primary location of business, number of active owner-operators, business legal status and technology orientation) on Nascent Venture Performance (NVP) was significant in year-2 and year-4, but not significant in year-1 andyear-3. The F-statistic which represents the overall effect of the five business demographics was 3.483 (p = .004) in year-2 and 2.295 (p = .044) in year-4(see Table 5 below).

Table 5: Global Effect of Business Demographics on Nascent Venture Performance

	Model Summary		F- Test	
	R-Squared	Adjusted R-Squared	F	Significance
Year -1	.009	.002	1.296	.263
Year-2	.023	.016	**3.483**	**.004**
Year-3	.009	.002	1.356	.239
Year-4	.015	.009	**2.295**	**.044**

Individual Effects of the Five Business Demographics on NVP

The results of the individual effects of the five business demographic variables on nascent venture performance disclosed the following. Hypothesis H_1 was supported in only year-2 and year-4. This means Nature of Product had significant effect on nascent venture performance in only years 2 and 4 of the early lives of the cohort of businesses. T-values for Nature of Product for those significant years were 2.679 (p = .008) for year-2 and 2.503 (p = .013) for year-4. Hypotheses H_2 and H_3 were not supported in any of the first four years under study. Thus neither Primary Location of Business nor Number of Active Owner-operators had any significant effect on Nascent Venture Performance within the first four years of existence of the cohort of businesses studied. Hypothesis H_4 was supported in only year-2 of the first four years under consideration. Thus Business Legal Status had a significant effect on Nascent Venture Performance in only the second year of existence of the cohort of businesses. The t-statistic for Business Legal Status in year-2 was 2.193 (p = .029). Hypothesis H_5 was nearly supported in year-1; with a t-value of 1.944 (p =.052), but was however fully supported in year-2,even though its effect was negative. The t-value of Technological Orientation in year-2 was -2.198 (p =.028)(See Appendixes B to E).

Discussion

The five Business demographics had a combined inconsistent time effect on nascent venture performance. Together, they significantly impacted nascent venture performance only in year-2 and year-4 out of the four years under investigation. Only three variables (business legal status, nature of product and technological orientation) out of the five business demographic indicators used in the study had significant effects on nascent venture performance.

Business legal status had a significant positive effect (Lee, 2003) in year-2 only. It is tempting to surmise that innovation might have started taking root in the businesses in the second year as a result of learning curve because the literature suggest that business legal form is an important determinant of innovation (Lee, 2003). Moreover, majority of the nascent ventures (about 67% to 70% within the four years) had some form of limited liability attribute inherent in their legal status. Storey (1994) had suggested that limited liability attribute of firms influences bank lending. The avoidance of risk to personal assets of owners and the desire to brand a business as a credible entity could have influenced many entrepreneurs' preference for businesses with limited liability attributes. Also, formal businesses tend to use deliberate planning and road map to manage their businesses to enhance their chances of better performance. There is

the possibility that the sample frame contained disproportionately more formally established businesses than informal businesses because the D&B data base used as sample frame might have captured mostly documented businesses.

Even though more nascent ventures (about 54% to 57%) had their primary locations outside the home than in the residences of their founders, there was no huge difference between the proportion of businesses located in homes and those located outside homes. This pattern is consistent with the predominance of firms with limited liability attribute in the sample as such firms tend to be more formal in nature and formal businesses normally operate from their own premises rather than from the homes of their owners.

The general pattern of primary business location again reinforces the plausibility that the D&B database used as the sample frame might have captured more formal business startups than informal ones. Other reasons that could possibly account for the significant percentage of businesses located outside home premises may be the nature of their industry, resource requirements and government policy (Brush et al., 2008). In the United States, there are stringent requirements under municipal, state and federal laws governing location of businesses. It is worth noting that a significant minority(about 43% to46%) of the businesses were also located in homes within the four years under consideration. This could probably be explained by advances in computer information technology and the Internet, personnel lay-offs, work-family balance needs and financial constraints (Brush et al., 2008; Vesper; 1990) that are currently encouraging people to start and run businesses from their homes.

Technology orientation had an interesting pattern of close-to-significant positive impact on nascent venture performance in year-1, followed by a negative significant effect on nascent venture performance inyear-2. Wagner (1984) and Schutjens and Wever (2000) have pointed out that technological orientation can be a double-edged sword that may either enhance a firms performance or contribute to its failure by either increasing innovation or business risk respectively. The nascent ventures were more inclined to operate in low-technology industries (58.7%) than medium-to-high-technology industries (41.3%). This may probably be due to the fact that more advanced technology business operations require huge financial outlay as well as intellectual property, which most of the nascent enterprises may not have possessed in their early lives.

Nature of product had positive significant effect on nascent venture performance (Reidenbach & Grubbs, 1987) in year-2 and year-4. A slight majority (between 53% and 57%) of the nascent businesses in the sample dealt in goods or in a mix of goods and services, while a relatively large minority (43% to 47%) traded in only services. The frequency of service provision could possibly have been higher than goods if firms providing a mix of goods and services had not been lumped together with those providing solely good for coding purposes. This is because provision of services does not require huge capital outlay like manufacturing businesses and therefore tend to be attractive to potential entrepreneurs.

None of thefive business demographic variables was significant in year-3. This could possibly have been be due to the fact that year-3 of the study,2007, was the year officially declared to be the beginning of the economic recession that gripped the United States in the latter years of the first decade of the twenty-first century(Wall Street Journal, 2008).

Managerial and Public Policy Implications
Potential entrepreneurs must be circumspect in choosing legal business form and product strategy as these organizational factors tends to materially impact nascent venture performance. Managers of new businesses must also be conscious of the fact that choice of technology orientation can be a double edge sword that can either affect a business start-up positively or negatively.

Implications for future theory development
The study has contributed to theory building and testing in the management and entrepreneurship literature. The findings of the study have interesting implications for trait theory, the resource-based view and population ecology. Organizational traits (Brush et al, 2008; Delmar & Shane, 2006; Kauermann et al., 2005) do impact nascent venture performance. A firm's mix of demographics may also be considered as intangible organizational assets that could have positive effects on nascent venture performance; if the blend is valuable, rare, inimitable and non-substitutable (Barney 1991; Daft, 1983; Mahoney & Pandian, 1992; Penrose, 1959; Wernerfelt, 1984). The study also throws light on population ecology theory as choice

of nascent venture demographics can either spell survival, growth or demise of neophyte businesses in the modern fast-pace, dynamic and uncertain business environment.

Limitations of the Study

The data cleaning and sanitization process resulted in many respondent firms in the original sample containing missing data being deleted before the analysis subsample was drawn. This is likely to have a slight adverse effect on the randomization of the final sample used for analysis. However, the analysis subsample of 754 was comparatively large enough to minimize the possible negative effect of the convenience sample that resulted. The use of the original stratification proportions in selecting the final sample for analysis also significantly reduced the potential negative effect of convenience sampling. The study was also limited by the fact that it used secondary data not specifically collected for the study. Finally, the study did not address the possible effects of interaction among the independent variables.

Future research direction

Future studies may expand this study by including interaction term in the model used to examine the effects of the five business demographics on nascent venture performance. Also, a study may be undertaken to combine the effects of organization traits and entrepreneur traits on nascent venture performance in a single study. Finally studies may be undertaken to examine the robustness of the findings of this study by using a different dataset or a different set of business demographics to test the effects of business demographics on nascent venture performance.

Conclusion

In conclusion, the study has thrown light on the longitudinal effects of business demographics on nascent venture performance. The results were to some extent supported by the literature. Clearly more study's need to be conducted using different datasets and different indicators in order to come to a definite conclusion about the impact of business demographics on nascent venture performance. Though the study revealed that business demographics had inconsistent effect on nascent venture performance over time, it drew attention to the fact that business demographics can theoretically be envisioned through the lenses of trait theory, resource based view and population ecology theory. The limitations of the study were pointed out and areas were identified for future research to build on the present study.

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Appendix A

Definition of Variables in the Study

Variable		Variable Name	Acronym	Notation
Independent		Business Legal Status	BSL	X_1
		Number of Active Owners	NOAO	X_2
		Primary Location of Business	PLOB	X_3
		Nature of Product-Offering	NOP	X_4
		Technological orientation/classification	TC	X_5
Dependent		Nascent Venture Performance	NVP	Y

Appendix B

Results: Business Demographics Indicators and Nascent Venture Performance –Year 1

Description	Independent Variables					Dependent Variable
Variable Acronym	BLS_1	$NOAO_1$	$PLOB_1$	NOP_1	TC_1	NVP_1
Variable Notation	X_8	X_9	X_{10}	X_{11}	X_{12}	Y_1
Unstandardized coefficients	.097	.041	-.117	.255	.353	
Standardized Coefficients	.019	.013	-.025	.053	.073	
T-value	.480	.326	-.639	1.422	1.944	
Significance	.631	.745	.523	.156	.052	
VIF	1.179	1.152	1.110	1.051	1.063	
Tolerance	.848	.868	.901	.951	.941	

Appendix c

Results: Business Demographics Indicators and Nascent Venture Performance –Year 2

Description	Independent Variables					Dependent Variable
Variable Acronym	BLS_2	$NOAO_2$	$PLOB_2$	NOP_2	TC_2	NVP_2
Variable Notation	X_8	X_9	X_{10}	X_{11}	X_{12}	Y_2
Unstandardized coefficients	.430	.003	-.050	.473	-.389	
Standardized Coefficients	.085	.001	-.011	.100	-.082	
T-value	**2.193**	.029	-.279	**2.679**	**-2.198**	
Significance	**.029**	.977	.780	**.008**	**.028**	
VIF	1.146	1.130	1.096	1.057	1.052	

Appendix D

Results: Business Demographics Indicators and Nascent Venture Performance –Year 3

Description	Independent Variables					Dependent Variable
Variable Acronym	BLS_3	$NOAO_3$	$PLOB_3$	NOP_3	TC_3	NVP_3
Variable Notation	X_8	X_9	X_{10}	X_{11}	X_{12}	Y_3
Unstandardized coefficients	-.276	-.032	-.145	.233	-.074	
Standardized Coefficients	-.065	-.014	-.037	.060	-.019	
T-value	-1.67	-.355	-.959	1.605	-.504	
Significance	.095	.723	.338	.109	.614	
VIF	1.148	1.114	1.108	1.044	1.047	
Tolerance	.871	.898	.902	.958	.956	

Appendix E

Results: Business Demographics Indicators and Nascent Venture Performance –Year 4

Description	Independent Variables					Dependent Variable
Variable Acronym	BLS_4	$NOAO_4$	$PLOB_4$	NOP_4	TC_4	NVP_4
Variable Notation	X_8	X_9	X_{10}	X_{11}	X_{12}	Y_4
Unstandardized coefficients	-.276	-.102	.151	.475	.112	
Standardized Coefficients	-.051	-.032	.030	.094	.022	
T-value	-1.291	-.838	.767	**2.503**	.585	
Significance	.197	.402	.443	**.013**	.559	
VIF	1.160	1.094	1.130	1.069	1.060	
Tolerance	.862	.914	.885	.935	.943	