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SEGMENTING THE POPULATION OF ENTREPRENEURS: A CLUSTER ANALYSIS STUDY

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This paper contributes to our understanding of minority entrepreneurs in the US by showing that ethnicity alone should not be used to describe or categorize small business owners. We examine a sample of 508 entrepreneurs from three minority groups (African, Mexican, and Korean Americans) and a white group using cluster analysis to explore a categorization pattern that best describes the differences among these entrepreneurs. Our findings suggest that minority entrepreneurs are in fact a very heterogeneous group on a multitude of dimensions such as motivations for entry, satisfaction with the business, nature of problems experienced, and demographics of the business such as its size and gross income. Based on our findings, we recommend that educational and support programs targeting minority entrepreneurs should consider other variables rather than focusing on ethnicity alone.

Keywords: Minority entrepreneurs; entrepreneurial motivation; satisfaction; cluster analysis.

1. Introduction

Approximately half a million small businesses (i.e., employing fewer than 500 people) are started each year in the United States. These firms represent about 95 percent of all businesses started annually and employ about 90 percent of the population (US Census Bureau, 2002). More generally, 97.5 percent of the 26 million firms in the US are small businesses (SBA, 2005). Obviously, these small businesses are a vital economic engine.

Within this context, scholars, policy makers, and legislators pay particular attention to minority-owned small businesses, those launched by members of ethnic minority groups, such as African Americans or Mexican Americans. Minority groups receive this attention because business ownership is a way to increase equality among social groups and integrate minorities into the broader social fabric (Fairlie and Meyer, 1996; Ngyuen, 2003).

Many foundations and researchers focus considerable efforts on trying to understand the dynamics that characterize small business ownership among minorities. For example, a recent report compared the level of entrepreneurial activity between native born Americans and immigrants, as well as between various ethnic groups and the general population (Fairlie, 2005). Such reports typically intend to offer a basis for programs and resource allocations that will promote minority self-employment. Nonetheless, American small business owners remain predominately white, with minority businesses representing only about twelve percent of all the small firms in the nation (SBA, 2005). To address this apparent disparity, the United States government spends considerable resources to encourage entrepreneurship, and in particular to encourage the founding and growth of minority-owned businesses, often termed ethnic entrepreneurship (see Appendix A for some examples of such programs). Yet despite the considerable investment in these programs, research that investigates whether ethnicity is the appropriate way to segment the population of minority entrepreneurs is lagging. Our paper intends to fill this gap and suggest non-ethnicity-based business groupings that could serve as a foundation for a more effective allocation of government resources.

A key assumption in entrepreneurship research focusing on minorities is that ethnic groups are homogenous within their group, and are also quite different from the non-ethnic majority group in terms of the various characteristics that are used to study entrepreneurs. Such characteristics include their motivations for starting the venture, their perceptions of success, the problems they face, and other demographic characteristics such as the age and size of the business. Specifically, many studies group all minorities together or use data that defines a business as minority owned but does not specify the particular ethnic group (e.g., Cooper and Artz, 1995; Scott, 1983; Young, 2002). Although this may be appropriate for certain research questions, in our view it is a mistake to classify all minorities in one seemingly homogeneous category, or even to categorize them solely based on their ethnic affiliation.

Instead, categories for studying entrepreneurs should not rely solely on demographic characterizations. As Birley and Westhead (1994) argued, it would be more effective to cluster entrepreneurs by motivations for entry. Surprisingly, relatively little research has followed this approach and few studies have attempted to characterize minority entrepreneurs according to more broad entrepreneurial traits, such as those mentioned above (one exception being Basu, 2004). In fact, past research has not determined a consistently predictive way to usefully categorize or classify entrepreneurs based on their ethnicity. Such lack of effective categories is especially problematic when we consider these classifications are the basis for many programs aiming to encourage and support minority entrepreneurship through the allocation of government resources. For example, Young (2002) combined minorities consisting of African, Hispanic, and Asian-American entrepreneurs together as she determined the types of assistance minority business owners needed most and the types of government programs they accessed.

In this paper, we contend that the assumption of ethnic homogeneity is a problematic one and suggest that the tasks and challenges entailed in operating a small business transcend ethnic boundaries. In other words, we believe that it is naïve to assume that all African-American entrepreneurs have similar motivations for starting firms, or likewise have similar benchmarks to evaluate their success. For example, Dean (1992) studied businesses owned by African Americans in an attempt to identify salient characteristics common to all firms but found that many of the predicted characteristics were inconsistent among the business owners and that they could not be easily grouped. We extend Dean's research by looking for salient characteristics common to all firms as well as characteristics that distinguish firms and entrepreneurs within the broad category of minority entrepreneurship.

We study a large sample of entrepreneurs from three minority groups (African, Mexican, and Korean Americans) and a white group and apply cluster analysis to explore a categorization pattern that better describes this sample of 508 business owners. In so doing, we extend the literature by providing a more suitable grouping of minority business owners, offer recommendations for designing programs that can better help promote minority-owned businesses and that can allocate government resources more effectively.

2. Literature Review

We review the literature on minority entrepreneurship as it relates to two specific topics: the motivations minority entrepreneurs have for starting a business and the expectations and definitions they have for achieving success. We discuss each in turn.

2.1. *Motivations for starting the venture*

A common view in early entrepreneurship research suggested that specific ethnic groups tend to have specific *homogenous* characteristics and motivations for starting businesses, and that these ethnic groups differed only relative to non-minority groups (Feldman *et al.*, 1991; Hisrich and Brush, 1986). The theoretical heart of many of these views is disadvantage theory (Light, 1979), which explains how chronic unemployment, low wages, and labor market discrimination push religious and ethnic minorities into self-employment. Following this theory, other scholars argued that minority entrepreneurs start their businesses out of necessity, as a way to cope with disadvantages in the labor market (Bates, 1997b; De Freitas, 1991; Fairlie and Meyer, 1996). These disadvantages, typically termed push factors, include limited opportunities for career progression and/or low prospective returns to employment for wages because of discrimination, incompatible education or training, and blocked promotional paths.

Feldman *et al.* (1991) reported that close to one-third of their minority sample, which included African, Hispanic, Asian, and Native Americans, had left their prior employment and entered self-employment because of such negative factors. Similarly, Raijman and Tienda (2000) found that Korean and Middle Eastern/South Asian business owners in Chicago "viewed self-employment as an avenue to overcome labor market disadvantages." International studies indicating minority entrepreneurs in France (Algerian, Moroccan, and Tunisian) and Britain (Pakistani, Indian, and East African) reported mostly push factors

(e.g., limited mainstream employment opportunities and unemployment) (Phizacklea and Ram, 1995) and "discriminatory wages in the paid employment sector" (Clark and Drinkwater, 2000) as motivation for their entrepreneurial activity confirmed this finding.

Other researchers identify opportunity motivations, or pull factors, rather than necessity motivations, for business startup among minorities. Carter *et al.* (2007) argued, "although membership in minority group matters…it is not as important as other reasons that affect a [nascent entrepreneur's] decision to start a business," a belief that has been proposed by several others. For example, Tienda and Raijman (2004) found that "Hispanic entrepreneurs *do not* perceive business ownership as a strategy for overcoming labor market disadvantages. Rather, for them, the independence business ownership affords is a more salient reason for becoming self employed." They indicated that US born Hispanics in Chicago mentioned both the desire to make more money and the desire for independence as their motivations for business ownership (Raijman and Tienda, 2000). Shinnar and Young (2008) also identified pull factors (i.e., the desire for independence and flexibility, and financial motives) as more prevalent among Hispanic immigrant entrepreneurs. Bradley and Boyles (2003) identified "being one's own boss" and "having freedom and independence" as the main motivators for entrepreneurship among minority women. Variables related to autonomy also were identified as the strongest motivators among Hispanic teens interested in entrepreneurship (Wilson *et al.*, 2004). Korean and Middle Eastern/South Asian entrepreneurs in Chicago ranked making more money as the most important motivator for starting a business (Raijman and Tienda, 2000). Lee *et al.* (1995) found the top goals and/or motivations of aspiring African-American business owners to be "using my skills and abilities," "creating a new venture," "gaining maximum control over my life," and "living how and where I want," with financial goals/motivations ranking seventh. Similar motivators also were identified among British minority entrepreneurs, only a minority of whom reported labor market discrimination and blocked mobility as the reason for starting a business (Basu, 2004). Rather, the most common reasons for self-employment among Bangladeshi, East-African Asian, Indian, Pakistani, and Turkish-Cypriot entrepreneurs in the UK were "family tradition to be in business" and "independence: to be my own boss."

2.2. *Outcomes of entrepreneurship*

Several scholars also have looked at particular outcomes expected to vary by ethnicity. In particular, Cooper and Artz (1995) examined whether initial expectations from the business venture vary according to minority status but found these entrepreneurs had the same expectations as those in the non-minority group. They also looked at the relationship between minority status and satisfaction from the venture, but again, found no significant relationships. Similarly, Scott (1983) showed that minority firms (as defined by Dun and Bradstreet who collected the data) and non-minority firms had similar performance characteristics with regard to profitability, indebtedness, and liquidity. However, Enz *et al.* (1990) examined a sample of African, Hispanic, Asian, and Native Americans and found that organizational values differed from those of the non-minority group but did not find differences among the four groups themselves. Similarly, Robb (2002) found that ethnic factors did not drive

differences in observed survival rates of the minority self-owned businesses in her data (African, Hispanic, and Asian Americans).

Despite this evidence, other researchers did find the ethnic categorizations to have predictive value. For example, Kollinger and Minniti (2006) found that "African-Americans tend to exhibit more optimistic perceptions of their business environment than other racial groups and are more likely than others to attempt starting a business." In fact, they are almost twice as likely to try starting a business as whites are. Butler and Herring (1991) also found evidence ethnicity had predictive value in entrepreneurship. Specifically, ethnicity was able to predict self-employment for African and Hispanic but not for Asian Americans. They measured the impact of ethnicity on personal income for members of different groups and found significant differences. Importantly, these findings were much stronger when there was a presence of a self-employed father; suggesting other, non-ethnic factors have an important effect on entrepreneurial activity.

Tienda and Raijman (2004) studied Hispanic immigrant entrepreneurs in Chicago and compared them to Korean, Asian, and white Americans, arguing that the Hispanic group had unique characteristics with regard to their self-employment patterns. For example, although entrepreneurial disposition and the desire to start a business are prevalent in Chicago's Mexican community, "lack of both financial capital and information about requirements to establish a formal business inhibits business formation for aspiring Mexican entrepreneurs." Other studies examining Mexican entrepreneurs identified lower business formation rates among Mexican immigrants compared to non-Latino whites (Fairlie and Woodruff, 2006). The researchers attributed this gap to lower education and wealth among Mexican immigrants. Fairlie and Woodruff (2006) further argued that Mexican-immigrant business owners have lower business income compared to non-Latino whites because of lower education levels and limited English language ability. These findings are consistent with a study by Lofstrom and Wang (2006), which compared Hispanics of Mexican and non-Mexican descent. They found that although Mexican Hispanics were less likely to enter business ownership compared to whites, other Hispanics (non-Mexican) were more likely to do so. Furthermore, Mexican Hispanics were almost twice as likely to exit business ownership compared to whites. These researchers attributed these gaps in new business entry and exit to differences in education and wealth.

Taken together, extant scholarly evidence suggests that entrepreneurial activity can be examined through various lenses. At a minimum, both ethnicity and one's particular motivation or the problems one is seeking to solve by founding the venture should be considered, including the typical outcomes of entrepreneurial ventures. In the study described below, we seek to understand how to group minority entrepreneurs more effectively so we can better understand this population. In so doing, we challenge the common assumption that demographic categorizations are the most effective ones. We offer an empiric exploration that does not pre-suppose any particular categories *ex-ante* (such as grouping by ethnic category) to determine whether ethnic categories are most useful for understanding entrepreneurial motivations and outcomes, or whether other groupings are more appropriate.

3. Methodology

Our data was collected as part of the 2003 and 2005 National Minority Business Owner Surveys (2003 and 2005 NMBOS). Between 2003 and 2005, using nationwide samples, the following four groups of business owners completed telephone interviews, with at least 200 responses from each group: African Americans, Korean Americans, Mexican Americans, and whites. To qualify for the survey, an owner-manager had to have been in business for at least one year, worked at least 320 hours per year in the business, been involved in the day-to-day management of the business, and resided with another family member. For details on the sampling procedures, see Appendix B. The survey instrument for the four groups was based on the protocols that were developed by the *Family Business Research Group*, a 17 college and university research consortium (Winter *et al.*, 2004).

3.1. *Telephone interviews*

Using the methodologies described in the Appendix A, respectively, by 2003, the sampling firm completed 5,575 contact calls where someone answered the phone. From this group, there were 179 refusals and 81 not available to complete the interview. In addition, 119 were not eligible because they were from other or unknown ethnic groups as well as 4,397 households that did not own a business. 420 respondents completed usable questionnaires. The African Americans sampled yielded 201 completed and usable interviews. White respondents completed 219 interviews. The response rate (the number of completed interviews divided by the number of those eligible for interviews) was 52.7 percent for the African-American and white samples combined. This response rate is acceptable given the difficulty of finding and completing telephone surveys with a national representative sample of the target population. For eight African-American and nine white households, no business interview was completed. As a result, the final samples were 193 and 210, respectively.

In 2005, the sampling firm contacted 13,514 Korean Americans including 4,139 from the residential sampling frame and 9,375 from the business-sampling frame described in Appendix B. It also contacted 11,999 Mexican Americans including 5,887 from the resident sample frame and 6,112 from the business sample (similarly described in Appendix B). The eligible samples of households and businesses were 10,632 Korean Americans and 8,955 Mexican Americans. After accounting for ineligibles, refusals, language barriers, and unavailable/nonqualified respondents, a group of 695 Korean Americans and 619 Mexican-American respondents were asked to complete the "in-language" screen questionnaires. The resulting completed and usable interviews were 200 for each sample of Korean Americans and Mexican Americans, respectively. Response rates were 28.8 percent and 32.3 percent for the Korean American and Mexican-American samples, respectively. Compared to the African-American response, these response rates are lower. However, this sampling frame relied on nationwide population listings of both residents and businesses. The efforts to attain completed interviews were extensive given the nature of such sampling lists. Specifically, the number of sample records required to yield one completed interview was 68 for Korean Americans and 60 for Mexican Americans.

3.2. *Sub-sample used for this study*

For this study, we conducted a principal components analysis to determine the variables by which entrepreneurs in the sample were most likely to vary. The main idea of principle component (PC) analysis is to reduce the factors of a data set consisting of a large number of interrelated variables, while keeping as much of the variation present in the data set as possible (Jolliffe, 2002). We entered all variables in the NMBOS dataset into the PC analysis and determined which had the largest eigenvalues. We then selected those cases for which complete data was available on the chosen variables. This method yielded a total sample of 508 entrepreneurs: 93 white, 95 African American, 161 Korean American, and 159 Mexican American. On average, respondents were 47 years old, had owned their firms for almost 10 years (since they were 37), and been in the US for about 36 years. The firms owned by these entrepreneurs had been in existence for an average of 13 years, employed an average of 3.6 employees, and had an average gross income of $276,336.50 (all gross income figures are reported in 2004 dollars).

3.3. *Description of variables*

We clustered our entrepreneurs based on a total of 20 variables: The first group consisted of demographic variables (all measured in number of years), including: (1) the entrepreneur's age when he/she joined/started the business, (2) the number of years the entrepreneur had been in business at the time of the study, and (3) the entrepreneur's US tenure. Next, some business data was included, namely: (4) number of employees who worked for the business, (5) years the company had been in existence, and (6) gross income in 2004 dollars (gross income for the African-American and white sample was reported in 2000 dollars, and converted into 2004 dollars for comparison purposes).

The following group of variables assessed the entrepreneur's perceptions of success: (7) overall perceived success of the business, and (8) perceived success in achieving the goals the entrepreneur set for him/her self. These two items were measured on a 5-point Likert scale where "1" was "very unsuccessful" and "5" was "very successful." The next group of variables included problems the entrepreneurs experienced in relation to the business. These were measured on a 5-point Likert scale in which "1" was "not a problem" and "5" was "a major problem." Problems included concerns with: (9) assessing customer needs, (10) pricing products or services, and (11) managing family-business conflict. The following group of variables addressed the entrepreneur's motivations/goals for entry into business ownership. This included both intrinsic motivations: (12) gaining maximum control over my life, (13) living how/where I like, (14) utilizing my skills and abilities, (15) satisfaction of creating or building a business, and (16) contributing to society; as well as extrinsic motivations: (17) building financial security for my family, and (18) earning lots of money. Motivations/goals were measured on a 5-point Likert scale in which "1" was "least important" and "5" was "most important."

The remaining variables asked the entrepreneur to describe him/her self in terms of (19) the importance of business needs versus family needs. This item was measured on a 5-point Likert scale, in which business needs coming first was "1" and family needs coming first

was "5." The entrepreneur also was asked to rate whether (20) business activities caused him/her to give up important social, family, or fun activities. This item was also measured on a 5-point Likert scale, in which "1" was "never" and "5" was "always."

4. Method of Analysis

Cluster analysis is a technique used to categorize cases in a sample to create case subgroups in a population that are homogenous to each other and heterogeneous from other groupings. That is, cluster analysis seeks to minimize within-group variation and maximize between-group variation (Garson, 2007). It is similar to a factor analysis, except instead of grouping similar items from a survey instrument together and differentiating them from other factors, in cluster analysis, the grouping is of cases/respondents in the sample. In our study, we performed a cluster analysis of the entrepreneurs in our population to identify subgroups of entrepreneurs with differentiating features. Our intent was to generate subgroups that provide insight into the possibility of market segmentation of entrepreneurs. In a sense, "cluster analysis will provide the most significant solution possible" given the structure of the data being clustered (Statsoft, 2007). There are several acceptable methods for doing a cluster analysis (Statsoft, 2007). First, we used hierarchical clustering with the centroid method of measuring distance (the distance between the center of each cluster) to determine the appropriate number of clusters to use. We then used k-means clustering to establish the final cluster membership. In k-means cluster analysis, initial clusters are chosen randomly, then additional iterations group observations based on the nearest Euclidean distance to the mean of the cluster, continuing as within-cluster variance is minimized and between cluster variance is maximized in an ANOVA-like fashion (Garson, 2007). This process continues until the cluster means do not shift more than a very small amount with each iteration. After k-means clustering is complete, F values are used to compare the means of the variables used for the analysis to determine how well the dimension discriminates between the clusters (Statsoft, 2007).

4.1. *Methodological limitations*

There are several limitations to our study. First, our cluster analysis is based on variables available through the NMBOS database, which may not capture all the factors that explain how entrepreneurs vary from one another. Thus, other factors may be relevant to differentiate entrepreneurs that are not included in our study. However, this risk is present in all studies seeking to examine a specific set of variables about a specific population. Second, the NMBOS database used two different sampling procedures for different ethnic groups. The white and African-American data was collected with one procedure in 2003, while the Korean and Mexican-American data was collected with a different procedure in 2005. It is possible that economic conditions differed between 2003 and 2005 in ways that affected entrepreneurs, or that the different sampling procedures yielded systematically different responses to the survey questions. Although we do not believe these issues influenced our findings substantially, they remain limitations of our study. The third limitation is that cluster analysis is by nature a descriptive analytical technique. As such, we caution that our results should be considered exploratory rather than definitive.

5. Results

Our analysis indicated that five clusters provide the best segmentation of our sample. Table 1 provides a statistical comparison of the clusters and Table 2 provides information about the ethnic composition of each cluster. We clustered our entrepreneurs based on demographic

Table 1a. Cluster descriptives.

Cluster	N	Owner Details			Business Details		
		Age when Joined Firm	Years in this Firm	Years Lived in US	Number of Employees	Years Company in Business	Gross Income in 2004 Dollars
Ambitious	155	30.61 (6.00)	10.58 (4.52)	42.40 (7.24)	4.04 (6.38)	17.72 (9.12)	$448,664.10 ($1,194,416.91)
Accomplished	24	31.50 (14.62)	35.17 (13.99)	62.33 (8.83)	2.21 (1.87)	37.33 (13.23)	$258,234.60 ($260,620.97)
Lifestyle	110	46.95 (7.40)	7.84 (5.66)	54.77 (10.26)	2.18 (3.13)	10.52 (6.92)	$84,508.50 ($126,065.05)
High rollers	8	32.50 (10.16)	6.88 (3.94)	12.00 (5.53)	32.38 (18.52)	8.88 (8.41)	$1,836,000.00 ($2,115,828.44)
Striving	211	37.82 (10.15)	6.94 (3.44)	22.07 (8.23)	3.03 (3.44)	7.74 (5.52)	$179,295.30 ($275,730.28)
Entire Sample	508	37.21 (10.61)	9.58 (7.88)	37.10 (16.76)	3.58 (6.18)	12.80 (10.25)	$276,336.50 ($785,562.21)
F		59.067	162.477	374.986	71.016	105.565	8.399
Sig.		0.000	0.000	0.000	0.000	0.000	0.000

Numbers in each cell indicate the mean and (standard deviation) for the variable within the cluster.

Table 1b. Cluster descriptives.

Cluster	N	Success Perceptions		Problems		
		Business Success	Success in Goal Achievement	Assessing Customer Needs	Pricing Products or Services	Managing Family/ Bus. Conflict
Ambitious	155	3.95 (0.992)	4.14 (0.84)	2.03 (1.34)	2.08 (1.35)	2.11 (1.30)
Accomplished	24	4.08 (0.88)	3.92 (1.18)	1.58 (0.97)	1.96 (1.46)	1.92 (1.32)
Lifestyle	110	3.75 (0.98)	3.88 (0.97)	1.83 (1.21)	2.09 (1.35)	2.02 (1.25)
High rollers	8	3.75 (0.89)	3.13 (0.64)	3.63 (1.51)	3.88 (1.64)	3.13 (1.89)
Striving	211	3.47 (0.97)	3.58 (1.03)	3.24 (1.63)	3.20 (1.54)	2.35 (1.39)
Entire Sample	508	3.71 (0.99)	3.82 (0.99)	2.50 (1.58)	2.57 (1.55)	2.20 (1.34)
F		6.506	8.51	27.892	20.262	2.498
Sig.		0.000	0.000	0.000	0.000	0.042

Numbers in each cell indicate the mean and (standard deviation) for the variable within the cluster.

Table 1c. Cluster descriptives.

Cluster	N	Motivations to Own a Business						
		Gaining Max. Control Over my Life	Living How/ where I like	Using my Skills and Abilities	Satisfaction of Creating or Building a Business	Contributing to Society	Building Financial Security for my Family	Earning Lots of Money
Ambitious	155	4.24 (1.12)	4.25 (1.12)	4.47 (0.84)	4.46 (0.91)	4.08 (1.22)	4.48 (0.89)	3.61 (1.23)
Accomplished	24	4.04 (1.16)	4.33 (1.01)	4.4 (1.02)	4.21 (1.25)	4.04 (1.12)	4.25 (1.23)	2.92 (1.21)
Lifestyle	110	4.28 (1.08)	4.38 (0.99)	4.67 (0.66)	4.50 (0.84)	4.41 (1.03)	4.28 (1.01)	3.57 (1.38)
High rollers	8	3.63 (1.19)	3.38 (1.69)	4.00 (1.41)	3.38 (1.41)	3.38 (1.60)	4.25 (0.89)	4.13 (1.13)
Striving	211	3.62 (1.39)	3.64 (1.41)	3.95 (1.26)	3.73 (1.28)	3.12 (1.53)	4.14 (1.13)	3.21 (1.38)
Entire Sample	508	3.97 (1.27)	4.01 (1.27)	4.29 (1.06)	4.14 (1.15)	3.76 (1.42)	4.28 (1.04)	3.41 (1.34)
F		7.982	9.712	10.936	14.78	20.3	2.445	3.839
Sig.		0.000	0.000	0.000	0.000	0.000	0.000	0.000

Numbers in each cell indicate the mean and (standard deviation) for the variable within the cluster.

Table 1d. Cluster descriptives.

Cluster	N	Family/Business Balance	
		Business (1) or Family (5) Needs Come First	Give up Important Social, Family, or Fun Activities Because of the Business
Ambitious	155	3.80 (1.29)	2.55 (1.43)
Accomplished	24	3.50 (1.38)	2.25 (1.15)
Lifestyle	110	3.58 (1.44)	2.35 (1.34)
High rollers	8	4.50 (1.07)	3.25 (1.28)
Striving	211	4.10 (1.26)	2.90 (1.45)
Entire Sample	508	3.87 (1.33)	2.65 (1.42)
F		3.955	4.017
Sig.		0.004	0.003

Numbers in each cell indicate the mean and (standard deviation) for the variable within the cluster.

Table 2a. Ethnic composition of each cluster.

	African American		Korean American		Mexican American		White		Total	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Ambitious	35	23%	15	10%	71	46%	34	22%	155	100%
Accomplished	5	21%	0	0%	2	8%	17	71%	24	100%
Lifestyle	38	35%	0	0%	37	34%	35	32%	110	100%
High rollers	0	0%	5	63%	3	38%	0	0%	8	100%
Striving	17	8%	141	67%	46	22%	7	3%	211	100%

Table 2b. Cluster membership of each ethnic group.

	African American		Korean American		Mexican American		White	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Ambitious	35	37%	15	9%	71	45%	34	37%
Accomplished	5	5%	0	0%	2	1%	17	18%
Lifestyle	38	40%	0	0%	37	23%	35	38%
High rollers	0	0%	5	3%	3	2%	0	0%
Striving	17	18%	141	88%	46	29%	7	8%
Total	95	100%	161	100%	159	100%	93	100%

variables (age when they joined the firm, years in business, US tenure), business data (number of employees, years the company has been in existence, and gross income in 2004 dollars), perceptions of success, business management problems, motivations for entry, and balancing family and business needs. The clusters are ambitious ($N = 155$), accomplished ($N = 24$), lifestyle ($N = 110$), high rollers ($N = 8$), and striving ($N = 211$) entrepreneurs. Cluster labels reflect the pattern of variables that distinguish one cluster from the other four and are described in detail below.

5.1. *The ambitious cluster*

Entrepreneurs labeled "ambitious" started their careers as entrepreneurs at the youngest age relative to the other groups. Specifically, these entrepreneurs started working in their firms in their early 30s, and joined firms that had already been in business for about seven years. At the same time, they are slightly above average in terms of how many years they have been with this business (about ten years). Ambitious entrepreneurs are highly responsive to intrinsic motivations because they ranked gaining control over their lives (4.24), living where and how they want (4.25), using their skills and abilities (4.47), the satisfaction of creating their own business (4.46), contributing to society (4.08), and building financial security for their families (4.48) as important motivators for launching their entrepreneurial careers. They also rank experiencing above average satisfaction with the success of their businesses (3.95) and having achieved the goals they set for their role in the business (4.14) higher than entrepreneurs do in other clusters. Ambitious entrepreneurs

operate the second highest grossing income firms in the data ($448,664). Regarding ethnicity, the ambitious cluster is almost half Mexican American (46 percent), the other half consisted of almost an even split of African American and whites (23 percent and 22 percent, respectively).

5.2. *The accomplished cluster*

Entrepreneurs in the "accomplished" cluster have owned their businesses for the longest time (35 years) and are likely to have founded their firms. These entrepreneurs have also been in the US for the greatest number of years (62), making this cluster least likely to include immigrants. Entrepreneurs in this cluster also ranked intrinsic motivations very highly, particularly living where and how they want (4.33), using their skills and abilities (4.40), gaining satisfaction from creating their business (4.21), and contributing to society (4.04). Accomplished entrepreneurs rank success of their business (4.08) higher than other clusters, and their average business gross income is $258,235. Entrepreneurs in this cluster are predominantly white (71 percent), followed by African American (21 percent).

5.3. *The lifestyle cluster*

Entrepreneurs in the "lifestyle" cluster were the oldest when entering their businesses (47 years), have lived in the US for a long time (55 years), and are thus less likely to be immigrants. They are highly responsive to intrinsic motivators, particularly to gaining control over their lives (4.28), living where and how they like (4.38), using their skills and abilities (4.67), gaining satisfaction from creating a business (4.50), and contributing to society (4.41). Although these rankings are similar to the accomplished entrepreneur cluster, the financial outcomes for the lifestyle cluster are quite different. Profitability within this cluster is quite modest, with the average gross income in this cluster being less than half that of the other clusters ($84,508). There are no Korean Americans in this cluster, although the other ethnic groups are almost equally represented.

5.4. *The high rollers cluster*

Because this is a very small cluster with only eight entrepreneurs, results should be interpreted with caution. With that noted, the "high rollers" cluster represents the largest and highest grossing businesses in our sample. The average number of employees for firms in this cluster is 32, compared with an average of up to four in the other clusters. Gross income for firms in this cluster averages $1.836 million, which is more than five times that of the average gross income for the other four clusters. Entrepreneurs in this cluster have been in business for relatively few years (average of seven), and are also more likely to have started the business themselves rather than entering an existing firm. They have lived in the US for relatively few years (12), and are thus most likely to be immigrants. High roller entrepreneurs see business as a way to earn money rather than a way of life because they ranked highest on earning lots of money (4.13) as a motivator. Entrepreneurs in this group rank putting family needs first highly (4.50), more so than members of the other clusters, but they also

report that they give up important social, family, or fun activities because of the business (3.25) more than other groups. Unsurprising, they are the only cluster reporting above average levels of family-business conflict (3.13). In other words, although entrepreneurs in this group feel family needs *should* come first, they also evidence high levels of sacrificing family needs and family time for the business. Extrinsic motivation is highest in this cluster and intrinsic motivations fall below the mean. Entrepreneurs in this cluster report above average problems with assessing customer needs (3.63) and pricing products and services (3.88). This cluster is two-thirds Korean (63 percent) and one-third Mexican American (38 percent).

5.5. *The striving cluster*

The "striving" cluster is the largest, with 211 entrepreneurs. Entrepreneurs in this cluster were a bit older when they joined their business (about 38 years) and have lived in the US for about half of their lives (22 years compared to their average age of 45 at the time of the study), making this cluster more likely to include immigrants. They are also the *most* likely to have started their businesses rather than having entered an existing, established family business (the difference between the age of the business and the years they have been with the business is the smallest — less than 1 year). The strivers indicated that family needs should come before business needs (4.10), but similar to the high rollers, they were more likely to report giving up important social and/or family activities for the business (2.90), and they report an above average level of difficulty with managing family-business conflict (2.35). They also reported lower extrinsic and intrinsic motivation than entrepreneurs do in the other clusters. Finally, striving entrepreneurs reported experiencing problems with assessing customer needs (3.24) and pricing their products and services (3.20). This cluster is mostly Korean (67 percent) and Mexican American (22 percent).

5.6. *Analysis by ethnic group*

Table 2 shows the percentage of each ethnic group for each of the five clusters just identified. The most evident finding is that Korean Americans are primarily striving entrepreneurs (88 percent). In contrast, African Americans are primarily lifestyle (40 percent) or ambitious (37 percent) entrepreneurs, as are whites (38 percent lifestyle, 37 percent ambitious). Mexican Americans appear to be ambitious (45 percent), striving (29 percent), or lifestyle (23 percent) entrepreneurs. These findings indicate significant variation among African American, white, and Mexican-American entrepreneurs, while Korean entrepreneurs seem to be grouped predominantly within one cluster.

6. Discussion

This paper contributes to our understanding of minority entrepreneurs in the US by showing that ethnicity does not necessarily have predictive value when it comes to describing characteristics of small business owners. Although our results are based on an exploratory inquiry, they suggest that minority entrepreneurs are in fact a very heterogeneous group

on a multitude of dimensions such as motivations for entry, satisfaction with the business, nature of problems experienced, and demographics of the business such as its size and gross income.

As previously stated, within-group differences among minority entrepreneurs have been identified by very few researchers. Our findings suggest that minority entrepreneurs vary significantly in terms of their motivations for entry into business ownership. While the ambitious, accomplished, and lifestyle entrepreneurs are driven mostly by intrinsic motivations, the high rollers indicated the extrinsic motivation of "earning lots of money" to be most important.

In terms of self-perceptions of success, past research indicated entrepreneurs who were intrinsically motivated to be self-employed reported higher levels of satisfaction with their businesses compared to those who were extrinsically motivated (Cooper and Artz, 1995). Similarly, Feldman and Bolino (2000) found entrepreneurs motivated by a desire for entrepreneurial creativity had "higher levels of job satisfaction and psychological wellbeing, as well as high levels of overall life satisfaction" and those motivated by a desire for autonomy and independence reported the highest levels of life satisfaction. Buttner and Moore (1997) indicated that female entrepreneurs who were mostly motivated by the challenge in business ownership measured success primarily in terms of self-fulfillment, and secondarily in terms of profit. These findings are consistent with ours in that the three intrinsically motivated clusters (ambitious, accomplished, and lifestyle entrepreneurs) also reported above average satisfaction with their success in achieving their business goals.

On the other hand, Robichaud *et al.* (2001) found entrepreneurs who had strong extrinsic motivations, such as the desire to increase personal income, had significantly greater sales and greater fund withdrawals from the business. The high rollers in our sample seem to fit this profile because this group, although small, reported high extrinsic motivation and the highest reported gross income. In this context, an additional contribution this paper makes is in suggesting that these entrepreneurs also encounter more problems, in particular in terms of assessing customer needs, pricing products and services, and managing family and business conflict. Intuitively, these findings suggest that high rollers set more aggressive business goals for their ventures and consequently, encounter more stressful and problematic business situations. Because of the size of this cluster and the exploratory nature of our investigation, we believe that future research on this particular group is needed.

An additional contribution of our research is an entrepreneur's self-assessment of success should not be measured only in financial terms. In fact, the entrepreneurs in the high rollers cluster reported the *highest* gross sales, but also reported the *lowest* sense of success in achieving business goals. Several researchers have stressed the importance of understanding the degree to which entrepreneurs perceive themselves to be successful (Kuratko *et al.*, 1997; Naffziger *et al.*, 1994). These scholars contended that entrepreneurs examined the probabilities of goal accomplishment and were motivated to sustain entrepreneurship to the extent they believed these behaviors would lead to the accomplishment of personally relevant goals. Here too, our findings suggest differences in individual motivations and/or goals may contribute differently to individual satisfaction with the business and perceptions of success.

The results of this study are particularly interesting in the context of the Korean-American entrepreneurs. Two findings stand out with regard to the Korean Americans: no Korean Americans were lifestyle entrepreneurs and two-thirds of the striving entrepreneurs were Korean Americans. In their examination of the relationship between cultural values and entrepreneurial behavior, Morris and Schindehutte (2005) explained that Koreans saw material wealth as an indication of success and ranked money second only to family as the most important value in daily life. This value system may explain why Koreans were absent from the lifestyle cluster. Furthermore, the fact that "Confucian values…are not particularly supportive of entrepreneurship" (Morris and Schindehutte, 2005) may explain the low levels of satisfaction with the business reported by the striving cluster, which is mostly Korean.

Raijman and Tienda's (2000) research can potentially explain the higher proportion of Korean Americans in the striving cluster, which indicated Koreans were likely to arrive in the US as immigrants, willing to sacrifice and strive to advance financially so their children would be able to attain a prestigious education and pursue a free profession. Confucian values do not regard entrepreneurship as a favorable occupation (Morris and Schindehutte, 2005; Timmons *et al.*, 1985); therefore, these immigrants may strive to ensure a better future for their children. Consistent with these arguments, our findings indicate the striving cluster rated the goal of 'building financial security for my family' as highly important. Indeed, Kim (1993) also argued that Korean immigrant entrepreneurs are most satisfied when their children attain important academic achievements and pursue free professions at prestigious American universities. Kim noted these entrepreneurs value striving as a way of making such educational accomplishments possible for their second-generation offspring. In this context, a possible explanation for our striving group pattern of findings is that the main source of pride and satisfaction for Korean entrepreneurs does not emerge in response to business achievements, but rather in terms of being able to provide for their families.

Furthermore, Min (1990) also reported that Korean immigrant entrepreneurs were typically very dissatisfied with their businesses and lifestyles. Min (1990) attributed this low level of satisfaction to the particular characteristics of Korean business patterns, which include: working long hours and suffering the health and psychological consequences of such intense work, locating in high crime areas, and being subjected to hostility based on racial tensions when interacting with other racial minorities. In line with Raijman and Tienda's (2000) arguments, Min (1990) also suggested immigrant Korean entrepreneurs were dissatisfied in response to a status inconsistency. These entrepreneurs, although financially better off than they would have been in Korea, were frustrated by the low-status, labor intensive and often-blue-collar nature of their businesses in the US.

In contrast, Webber (1969) argued that financial outcomes were not the exclusive or even primary motivators for Mexican-American entrepreneurs, but rather the adventure, power, social prestige, and sense of achievement business ownership provides were their driving forces. Here too, although we did not measure these variables, Webber's findings are consistent with the pattern we found, where two-thirds of the Mexican-American entrepreneurs were members of either the ambitious or the lifestyle clusters, both of which are characterized by high levels of intrinsic motivation.

Finally, our findings, although exploratory, challenge some previously accepted ideas about immigrant entrepreneurs. Light (1984) summarized most approaches to this type of self-employment with his suggestion that immigrants coming from a low-wage country to a high-wage country, such as the US, derive psychological satisfaction even from squalid proprietorship. He stated that these entrepreneurs were willing to accept "low money returns, long hours of labor, job related danger, and domestic penury to maintain business self-employment…. Relative to their countries of origin, even adverse living conditions look good to immigrants." Although the characteristics of the striving cluster suggest that immigrant entrepreneurs are willing to work through the frustrations of entrepreneurship and that they experience a relatively greater frequency of business problems, other clusters do not fit this description. For example, we show that the members of the high rollers cluster, who are quite likely to be immigrants (they have been in the US for 12 years, on average, and are approximately 39 years old), do not face such circumstances and are able to establish competitive, high grossing ventures. In fact, some research evidence (Bates, 1997a) suggested that Korean immigrants financed their businesses with startup capital coming from family wealth, which may explain their strong presence among the high-roller cluster. Bates (1997a) found Korean firms to have lower mean loan sizes and lower debt to equity ratios compared to non-minority and other Asian-American entrepreneurs. Additionally, Ley (2006) found evidence that Korean immigrant entrepreneurs in Canada arrived with personal start-up funds averaging $400,000 Canadian dollars, lived in expensive homes (costing approximately $500,000 to $1 million), and had access to additional financial resources in Korea.

We suggest that although some groups of entrepreneurs tend to follow the immigrant entrepreneurship pattern Light (1984) described, this pattern cannot be uniformly applied to all immigrant entrepreneurs. More broadly, our findings demonstrate that immigrant entrepreneurs need not be viewed as homogenous. In our findings, immigrants were members of either the high rollers or the striving clusters. Extending these findings, we suggest that several patterns of self-employment exist among these entrepreneurs, and immigrant status alone is not descriptive enough for distinguishing between entrepreneurs' patterns and needs. Further research should investigate the potential differences in the self-employment patterns of various immigrant groups and in particular the differences between foreign and native-born entrepreneurs within the same ethnic group.

7. Conclusions

Our exploratory results indicate that minority entrepreneurs do not represent a homogeneous population as past research suggests. In addition, this study's findings suggest ethnicity is not the best way to group entrepreneurs for purposes of designing educational and support initiatives. We believe policy makers should treat minority business owners as a heterogeneous population, and structure educational and support initiatives according to the motivations, needs, and unique challenges of each cluster, rather than creating a uniform program for all minority entrepreneurs or even targeted programs to specific minority groups (such as Korean Americans, for example). Similar policy implications were recently suggested by Carter *et al*. (2007) who concluded, "assistance programs that concentrate on a [nascent

entrepreneur's] race or ethnicity, to the virtual exclusion of the person's motivations, are unlikely to produce consistently positive results."

In particular, the high rollers and the striving entrepreneurs in our sample would most likely benefit from business training that addresses the problems they experience in assessing customer needs, pricing products or services, and managing family-business conflict. In fact, these two clusters consisted of the youngest companies with entrepreneurs who have been in business for the fewest number of years. Thus, age of the business and entrepreneurial experience could represent an important variable to determine training needs, rather than ethnic background. Additionally, lifestyle entrepreneurs, who reported the lowest levels of gross income and smallest number of employees, would possibly benefit from preparation for succession planning. Given the modest revenues of their businesses, these entrepreneurs would need to consider the options of retaining the business in the family, selling it, or closing it. Finally, the ambitious entrepreneurs who manage established firms can serve as incubator firms or as a source of mentors for co-ethnic peers. In fact, working for co-ethnic employers has been identified as a "common pathway to business ownership for Koreans" (Raijman and Tienda, 2000), suggesting the usefulness of this approach.

In the future, it would be worthwhile to examine whether entrepreneur clusters differ in their intentions for business succession. This question is especially relevant for our sample, given that it consists of many family businesses. For example, it would be valuable to assess whether the striving entrepreneurs are less likely to want to retain the business in the family or pass it on to their children compared to the accomplished, ambitious, or high roller clusters. As we mentioned above, the striving cluster in our sample consisted of mostly Korean-American entrepreneurs, a group which has been previously identified as one that "view[s] self employment as the "price" of immigration to be paid by the first generation" (Raijman and Tienda, 2000), expecting their children to enjoy better labor market opportunities.

Lastly, our findings suggest we need to reevaluate the population of entrepreneurs to understand the market we are trying to reach in our specialized programs, teach about in our classrooms, and study in our research. The common perception of entrepreneurs suggests these are highly satisfied, intrinsically motivated individuals, who started their own firms. In fact, not one of our clusters corresponds to all three traits. To advance studies of entrepreneurship, it is imperative to move beyond the stereotypical view of entrepreneurs and entrepreneurship, and reconsider how to segment the population of entrepreneurs. Our study makes an important contribution to this area of research.

Interview questionnaires, originally developed by the Family Business Research Group (FBRG) relative to 1997/2000 National Family Business Surveys (1997/2000 NFBSs), were adapted.

The second project was the "2005 National Minority Business Owner Surveys, Korean Americans and Mexican Americans (2005 NMBOSs)," which was funded by the Ewing Marion Kauffman Foundation and also managed by Alvin N. Puryear, Edward G. Rogoff, Myung-Soo Lee, and Ramona K. Z. Heck at the Lawrence N. Field Center for Entrepreneurship, Baruch College. Interview questionnaires, originally developed by the Family Business Research Group (FBRG) relative to 1997/2000 National Family Business Surveys (1997/2000 NFBSs), were adapted as well as translated for "in-language" interviews.

Appendix A. Examples of Programs and Initiatives Encouraging Minority Entrepreneurship

In 2004, President Bush launched an initiative geared toward creating an entrepreneurship network in conjunction with The Kaufmann Foundation and the National Urban League (NUL), a community-based movement (White House, 2004). This initiative mandated increased funding for minority-serving institutions by 30 percent over four years, with funding increasing for minority educational institutions from $298.5 million in FY 2001 to a requested $395 million in the FY 2005 budget. In 2007, the US Department of Labor started a $3.3 million grant to foster entrepreneurship among minorities (DOL, 2007). More impressively perhaps, in 2007, Senator Kerry proposed legislation — the Minority Entrepreneurship Development Act of 2007 — geared toward increasing the number of small business loans minority businesses received. Additionally, this legislation proposes to offer competitive grants to various minority educational institutions as a way to encourage entrepreneurship education, create distance learning programs for small business owners interested in doing business with the federal government, and offer price-evaluation adjustments for socially and economically disadvantaged businesses as a way of increasing their competitiveness when bidding against larger firms (US Senate, 2007).

Such programs are not only sponsored by the government, corporations and universities also generate initiatives and many universities across the country have programs targeted toward minority communities. For example, in 2006, UCLA and AT&T launched a training program for minority entrepreneurs (Holmes, 2006). UCLA sponsored 35 entrepreneurs and senior executives from diverse San Diego businesses in a groundbreaking program to teach the skills and strategies needed to increase their productivity and profitability in the marketplace. As another example, Baylor University features a family-business owners' training center addressing managerial concerns such as succession planning (Bowman, 1991).

Appendix B. Sampling Procedures

White and African-American Samples. In 2003, Global Marketing Research Services (GMRS) of Melbourne, Florida completed the interviews with the African-American and

white business owners. GMRS placed random calls to 12,300 out of a combined 30,000 white and African-American households that had both household and business telephone listings of the same telephone number. By default, these sampling procedures meant those identified were, in fact, home-based businesses.

In choosing the African-American sample, Marketing Systems Group (MSG), a sampling company, used the GENESYS sampling system, which contains the African-American population for every telephone exchange. The African-American sampling frame included all telephone exchanges where African-American households exceed 20 percent of the total households. This represented approximately 67 percent of all African Americans nationally.

Korean-American and Mexican-American Samples. In 2005, TMR, Inc. of Cedar Knolls, New Jersey, completed the interviews with the Korean-American and Mexican-American business owners. As opposed to African-American business owners, Korean Americans and Mexican Americans have relatively low incidences of business owners nationwide. Therefore, with each of these groups, MSG generated two target samples for each group and paid respondents $50 for completed interviews, in an effort to maintain a reasonably broad nationwide representation. Accordingly, one Korean-American sample universe was targeted at households and the other targeted at Korean-American businesses. Similarly, one sample universe was targeted at Mexican-American households and the other targeted at Mexican-American businesses. In both samples, households represented about one-half of the sampling frame throughout. Because each of these samples started with both population and business listings, the resulting samples included both home-based businesses as well as storefronts with the latter being more frequently represented.

Using the GENESYS estimates of Asian households, a coverage report was developed that detailed both likely incidence and likely representation of the Korean-American population. The selected sample had the likelihood of generating at least a 20 percent incidence and at least 50 percent coverage, nationwide. Additionally, a targeted universe of Korean-American businesses nationwide was generated, and then compared to the household sample to avoid duplication. When dialing this targeted business sample, TMR only contracted those records that were not part of the household sample.

To derive a Mexican-American sample, MSG used estimates of Hispanic households by country-of-origin within each state as the foundation to generate a targeted household sample. While MSG's GENESYS sample universe contains Hispanic surnames, these surnames fail to discriminate by country-of-origin. Therefore, the sample universe was limited to those states where the Hispanic population is predominantly Mexican American, Chicano, or Mexican. The top 15 states (in terms of percentage of Mexican Americans among all Hispanics) throughout the United States were selected, covering about 85 percent of the target population (Mexican-American households) throughout the United States. Additionally, a targeted universe of Hispanic businesses, again targeted at these same 15 states, was generated, and then compared to the household sample to avoid duplication. When dialing this targeted business sample, TMR only contracted those records that were not part of the household sample.

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