

The Role of Academic Deans as Entrepreneurial Leaders in Higher Education Institutions

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Abstract To help address enrollment and financial challenges institutions of higher learning may benefit by having a better understanding of entrepreneurial leadership orientations, or skills, of academic deans. This study revealed several significant correlations between the self-reported entrepreneurial orientations of academic deans in upstate New York, working in independent colleges and universities, and certain demographic characteristics of their positions. Academic deans reported “team builder” and “proactive” as their two highest ranked, self-reported entrepreneurial characteristics, while “risk taking” was ranked as the lowest characteristic. The results indicated a significant correlation between certain variables applicable to academic deans’ positions, such as years of experience and job expectations, with the self-reported entrepreneurial orientations of such deans.

Key words Higher education · leadership · entrepreneurial orientation · academic deans

Many higher education institutions in the United States are facing mounting enrollment challenges and financial difficulties as a result of increased competition, the financial crisis of 2007, changes in student demographics, increased roles of technology and online learning, and decreases in high school graduates and traditional student enrollments (Dunbar et al. 2011; Johnson et al. 2013; New York State Education Department 2013; Smith 2004; Selingo 2013; Thornton 2009). These challenges can place pressure on leaders of these institutions to seek out alternate funding sources through entrepreneurial activities. Leaders, such as academic deans—if they want their organizations to be successful and competitive—need to acquire entrepreneurial

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skills in order to meet the challenges of the dynamic and competitive environment of higher education today (Clark 2000, 2004). Academic deans are in a position to influence how colleges and universities evolve, and they need skills similar to running a business in order to be successful at meeting the challenges facing higher education (June 2014).

While higher education institutions in the United States encounter and manage a multitude of challenges, the types of challenges they encounter may be dependent upon the institutions' geographical locations. Based on a report from the Western Interstate Commission for Higher Education (2008), the rates of high school graduates are projected to decrease across many parts of the country. These decreases can impact the enrollment of students entering college directly from high school, and they could create financial challenges for independent colleges and universities that receive a significant amount of revenue from tuition (Department of the Treasury 2012). A report by the New York State Education Department (2013) indicated that the average graduation rate in 2012 was 74%. Given the low high school graduation rates, in addition to current higher education challenges, colleges and universities in upstate New York were the focal point for this study. This study examined whether a relationship exists between the self-reported entrepreneurial orientations of academic deans and other professional and demographic characteristics of the deans' positions at independent colleges and universities in upstate New York. I believe, however, that results from this study provide valuable information to academic leaders in any higher education institution that face financial and enrollment challenges.

Clark's entrepreneurial framework (1998, 2000, 2004) guided this study, and it has been applied to several research studies in the field of higher education. He believed that an entrepreneurial spirit is needed to be constant and proactive in an institution of higher education. Based on Clark's framework, entrepreneurship is an approach institutions can use when experiencing change or planning for change. According to Clark (1998), "collective entrepreneurial action" is when "groups, large and small—central and departmental—of faculty and administrators (and sometimes students) can fashion new structures, processes, and orientations whereby a university becomes biased toward adaptive change" (p. 4). Collective entrepreneurial action is effective when it creates "resources and infrastructures that build capacity beyond what intuitions of higher education would otherwise have, thereby allowing it to subsidize and enact an up-market climb in quality and reputation" (Clark 1998, p. 5). Thus, entrepreneurship in the field of higher education could involve the entire institution, including the different schools, departments, and/or all levels of leadership within the institution—from the presidents to the deans to the faculty and even the students.

Entrepreneurial orientation is a method of assessing entrepreneurship and leadership that was first recognized by business and industry and described as the "entrepreneurial strategy-making process that key decision makers use to enact their firm's organizational purpose, sustain its vision, and create competitive advantage(s)" (Rauch et al. 2009, p. 763). Entrepreneurial orientation in this study is defined "as the disposition of an individual or an organization to engage in entrepreneurial activities, determined by the degree to which they exhibit the following 10 attributes: innovative, risk-taker, creative, change agent, team builder, competitive, flexible, visionary, proactive, and persuasive" (Riggs 2005, p. 10). For the purpose of this study I understand entrepreneurship to mean engaging in activities that combine risk, innovation, and opportunity that could involve individuals or organizational units (Association for the Study of Higher Education 2009).

Academic deans are in crucial leadership roles for implementing entrepreneurial activities and programs that can impact the finances of their colleges, but these activities and programs

depend on the cooperation and support of faculty members and other academic and administrative leaders. Deans may need to pay close attention to how others are involved in existing and planned entrepreneurial activities within their institution. This study was designed to explore these matters and addressed the following questions:

- What is the self-reported entrepreneurial orientation of academic deans in upstate New York's independent colleges and universities?
- Is there a relationship between the self-reported entrepreneurial orientation of academic deans and certain demographic and professional characteristics of academic deans' positions in these independent colleges and universities?

Literature Review

Clark's entrepreneurial framework (2000, 2004) suggests a key to successful entrepreneurship is knowing how leaders on campus, such as academic deans, contribute and support revenue-generating activities. This knowledge can be valuable to institutions that are struggling financially. In many higher education institutions, academic deans are now expected to be leaders who develop and execute entrepreneurial endeavors, such as partnerships and fundraising (Gmelch et al. 2011; June 2014). These deans tend to work and support two groups of people in an institution, the senior administrators and the faculty. Thus, they play influential roles in the development and success of entrepreneurial activities and need to advocate for both the faculty and the administration (June 2014; Rosser et al. 2003).

Academic leaders who have entrepreneurial characteristics may be able to enhance their abilities to engage in different entrepreneurial activities in order to address fiscal and economic challenges. Several studies (Esters et al. 2008; Gmelch et al. 2011; Kirby 2005; Riggs 2005; Smith 2009) have described the entrepreneurial leadership of college presidents. However, according to Clark (2004), entrepreneurialism requires strong leaders at all levels within these institutions; and academic deans are included in this group. Research indicates that deans are in a position to effect change and influence the development and success of entrepreneurial activity (Gjerding et al. 2006; Glassman et al. 2003; Krahenbuhl 2004; Williams 2009; Wolverson and Gmelch 2002). This study provides an enhanced understanding of the entrepreneurial leadership orientations, or skills, of deans in higher education institutions.

Clark (2008) supported entrepreneurship as a framework for colleges or universities to use when experiencing changes in the environment and to help create entrepreneurial pathways in competitive and fluctuating markets. Change is certain to happen in institutions of higher education, and colleges and universities "can be engulfed by it or they can work hard to alter their character in ways that allow them to better control their own destiny" (Clark 2004, p. 7).

Clark (1998) identified five elements that institutions and leaders could adopt to address competitive markets in an entrepreneurial manner. The elements are (a) a strong core of central faculty members and administrators who can blend new management practices with traditional academic values; (b) an expanded developmental vision to include new business and academic units such as continuing education, intellectual property, and research centers, which are outside traditional academic departments; (c) a diversified funding base to increase the sources of income for an institution to quickly take advantage of new opportunities; (d) a stimulated academic heartland in which academic departments work together to develop new programs or

relationships and to encourage new avenues for income throughout the institution; and (e) an integrated entrepreneurial culture that embraces change and encourages entrepreneurial pathways throughout the institution (Clark 1998, p. 5). The Clark framework suggests that, if institutions pursue and implement these five elements, they can become more entrepreneurial and, in turn, better able to adapt to changes in competitive environments. Clark chose the term “entrepreneurial” because he believed that it described actions that lead to change in organizational efforts.

One of the first studies of entrepreneurial leadership in higher education was conducted by Peck (1983), who created a theory suggesting that institutional success can be enhanced by the entrepreneurial leadership within a college or university. Peck studied the leadership and relevant factors that explained the well-being of 20 small, independent colleges. Successful colleges were identified by a group of outside higher education experts using the following criteria: (a) a sound fiscal condition, (b) a modest endowment producing no more than 12% of the educational and general income, (c) strong full-time equivalency of student enrollment of greater than 2,500 students, (d) national visibility but still serving a limited geographical community, (e) recognized as having clear administrative processes, (f) the current president had been in office at least five years or at the college for at least seven years in an administrative role, and (g) recognized as successful by those having intimate knowledge of the college (p. 271). Peck discovered that these institutions were thriving, even as they managed problems such as uncertainty about finances, enrollment changes, and the challenge of maintaining a quality education. All 20 colleges shared the following characteristics: (a) were well run at the operational level, (b) were opportunity conscious, (c) were committed to their mission and innovative, (d) were effective while also being efficient, (e) used intuition when making decisions, and (f) relied on a people oriented structure rather than a hierarchical organizational structure (Peck 1983).

A study conducted by Fisher and Koch (2004) compared effective presidents (nominated as successful and effective by peers) with representative presidents (un-nominated) to learn how the effective presidents may be different in background, attitudes, values, behavior, and performance than the representative presidents. Fisher and Koch sent a letter to over 1,500 individuals representing American college and university presidents, heads of accrediting bodies, chairpersons of disciplinary associations, and chief executive officers of state higher education coordinating bodies to request they identify “especially effective, especially successful” presidents of higher education institutions (2004, p. 36). The authors purposely explained to this nominating group to use their own definition of “effective”. This nominating group is referred to as the experts, by Fisher and Koch, as they were well positioned to be knowledgeable and best suited to evaluate the population. The experts returned 371 nominations of effective presidents. A survey was then sent out to the 371 nominated effective presidents and an additional 1,289 un-nominated presidents asking for them to complete a survey to help assemble data on American college and university presidents. The total number of presidents who completed the survey included 371 effective presidents and 342 representative presidents.

Fisher and Koch (2004) found that those identified as effective presidents were significantly more entrepreneurial in character than those identified as the representative presidents. The effective presidents displayed the following entrepreneurial characteristics to a greater degree than the representative presidents: (a) willing to take risks; (b) not always following the organizational structure; (c) doing things in various ways that, at times, went against “the status quo”; and (d) developing partnerships with external organizations. Thus, Fisher and

Koch's findings supported Peck's theory, which suggested that entrepreneurial leadership can contribute significantly to the success of college and university presidents.

Esters et al. (2008) and Gjerding et al. (2006) applied the five elements of Clark's (2004) entrepreneurial framework to assess if and how an institution and its leaders demonstrated entrepreneurial practices. The data collection for both studies consisted of interviewing leaders in colleges and universities. In addition, a survey instrument was administered to capture the level of a leader's engagement in entrepreneurial practices or activities. Both studies demonstrated that elements of Clark's framework were practiced and displayed at different levels by academic leaders.

While several studies examined the entrepreneurial orientation and leadership of college presidents, few investigated academic deans (Fisher and Koch 2004; Peck 1983; Riggs 2005; Smith 2009). Based on the entrepreneurial framework described by Clark (1998, 2000), an entrepreneurial college president is just one factor to consider when creating an entrepreneurial institution of higher education and participating in entrepreneurial activities. Clark stressed the involvement of persons at different positional levels within an institution as an important characteristic of successful entrepreneurship in higher education. The study reported here contributes to this body of research.

Methods and Research Design

Scholars use multiple methods to measure and interpret entrepreneurial orientation and activity at colleges and universities (Clark 2004; Esters et al. 2008; Gjerding et al. 2006; Kirby 2005; Peck 1984; Riggs 2005; Smith 2009). In this study, quantitative data was collected and analyzed through an online survey that assessed the statistical relationships between the self-reported entrepreneurial orientation of academic deans and certain demographic and professional characteristics of academic deans in independent colleges and universities in upstate New York. A cover letter and instrument was distributed using Qualtrics, an online survey software package, in November 2010; and it concluded in December 2010. While the data is five years old, the results are still applicable today because deans are expected to be entrepreneurs and agents of change given the constant state of flux in the field of higher education (June 2014).

Academic deans for this research were those who oversee a school or division of a particular academic discipline(s) and employed in higher education institutions classified by the New York State Office of Higher Education as independent four-year and graduate institutions. For more generalizable results suburban populations and institutions located in the New York City and Long Island regions were excluded due to their urban environments having different social, political, economic, demographic, and regulatory issues than do suburban communities (Smith 2009). The 2009-10 Online Higher Directory provided contact information for the deans and is verified and updated with a 99.9% response rate from colleges and universities. Based on the 2009-10 Directory, 103 academic deans were employed at independent colleges in upstate New York.

The research instrument for the study on academic deans was based on an instrument originally developed by Riggs (2005) and enhanced by Smith (2009) for college presidents. Riggs and Smith gave written consent to use and adapt their survey. In order to modify the survey for deans, a panel of experts was used to determine if the survey accurately represented what it intended to measure for a new population (Vogt 2005). The panel of experts, made up

of current and former deans in New York, agreed that the survey achieved each measure; and these experts did not suggest any changes prior to dissemination in 2010. The institution where I received my doctorate degree provided approval for me to conduct the study.

Results

Data analysis included descriptive statistics (i.e., frequencies, percentages, means, and standard deviations), Pearson correlation coefficients, and analysis of variance (ANOVA) (Huck 2007; Vogt 2005). The self-reported entrepreneurial orientation of academic deans served as the dependent variable, while the independent variables were demographic and professional characteristics. The level of significance was set at .05 for all statistical analyses in this study. Thirty-seven of the 103 academic deans who were contacted completed the survey, which represents a 36% response rate. The respondents were 87.2% White, 7.7% Black or African American, 2.6% American Indian or Alaska Native, and 2.6% Hispanic or Latino. The sample of deans consisted of males (54%) and females (46%) and represented 20 independent colleges and universities.

The deans responded to a question, which utilized a four-point Likert scale, asking them to report how they perceived themselves in regard to 10 characteristics that were identified in the research (Clark 2004; Esters et al. 2008; Fisher and Koch 2004; Peck 1984; Riggs 2005; Smith 2009) as contributing to an entrepreneurial orientation. The characteristics included innovative, risk taker, creative, change agent, team builder, competitive, opportunist, visionary, proactive, and persuasive. The Likert scale ranged from 0 (the characteristic was “not at all” descriptive of them) to 4 (the characteristic was “very” descriptive of them). The mean score and standard deviation of each of the 10 characteristics or attributes for the 37 respondents determined the rank order of the characteristics (Table 1). The three highest mean scores of the entrepreneurial characteristics of participants were team builder, proactive, and change agent. The three lowest mean scores of the entrepreneurial characteristics of the participants were risk taker, competitive, and opportunist.

To compute the total entrepreneurial orientation score, the responses from each of the deans were summed to provide a total entrepreneurial orientation score that could range from 0 to 50. Data analysis revealed the mean total entrepreneurial score as 41.24 for all academic deans and the median at 41.00 with a standard deviation (SD) of 4.87. The lowest total entrepreneurial

Table 1 Frequencies and Percentages of Perceived Entrepreneurial Orientation Characteristics of Academic Deans

Characteristic	<i>n</i>	<i>M</i>	<i>SD</i>
Innovative	16	4.19	.88
Risk taker	6	3.57	.90
Creative	15	4.19	.86
Change agent	19	4.35	.75
Team builder	21	4.51	.61
Competitive	9	3.59	1.07
Opportunist	10	3.84	.93
Visionary	17	4.30	.74
Proactive	19	4.43	.65
Persuasive	12	4.30	.52

score was 33, and the highest total entrepreneurial score was 50. Analysis of the data revealed no statistically significant difference in the mean total entrepreneurial orientation scores between gender and academic discipline of the deans in this study (Table 2). The respondents who indicated an “Other” discipline category on the survey scored the highest mean total entrepreneurial orientation score of 39.15. Positions listed in the “Other” category included Interdisciplinary Studies and Information Technology.

Based on their responses in the survey, participants were split into two groups based upon whether they were or were not expected to engage in entrepreneurial activity as part of their job expectations. Descriptive statistics and a one-way ANOVA between the groups summarized the impact of the expectation of the academic deans to engage in entrepreneurial activity on their total self-reported entrepreneurial orientation score as reported in the survey. Table 2 lists the means and standard deviations of entrepreneurial-orientation scores by job expectations for the participants. The data analysis revealed a significant difference, $F(1, 34) = 5.112, p = .03$, between the two entrepreneurial, job-expectation groups and the mean total self-reported entrepreneurial-orientation score. For this sample, those who were expected to engage in entrepreneurial activity as part of their job responsibilities reported a significantly higher self-reported entrepreneurial orientation than did those who were not expected to engage in such activity.

A Levene’s test of the equality of error variances identified unequal error variances in the variables and identified a violation of assumption in the data (Levine’s $F(1, 24) = 4.8, p = .036$). In order to control for the inequality in variances, a Welch’s test confirmed any statistically significant differences in entrepreneurial orientation between the deans who were expected to engage in entrepreneurial activity and those who were not expected to do so. Further analysis indicated a significant difference between the two entrepreneurial job expectation groups and the mean total entrepreneurial orientation scores, Welch’s $F(1, 21.5) = 9.58, p = .005$, when controlling the equality of the variances.

The range of years of experience for the 28 participants who completed this question was 1–15 years. The mean number of years of experience was 4.42 ($SD = 3.57$). Seventy-nine percent of the respondents reported five years of experience or less in their current position as a dean, and 21% had six years or more experience. It was anticipated, based on the results of

Table 2 Means and Standard Deviations for Total Entrepreneurial Orientation by Gender, Academic Discipline, and Job Expectations

Gender	n	M	SD	f	p
Male	20	39.95	4.55	3.27	.08
Female	17	42.76	4.92		
Discipline of School	n	M	SD	f	p
Liberal Arts	4	41.75	7.67	.525	.76
Business	7	39.15	4.67		
Education	6	41.50	3.94		
Engineering	5	41.20	4.27		
Health Sciences	5	42.20	4.60		
Other	5	43.60	4.72		
Job Expectations	n	M	SD	f	p
Expected to Engage In Entrepreneurial Activity.	28	42.70	5.00	9.58	.005
Not Expected to Engage In Entrepreneurial Activity	8	37.86	2.75		

Riggs (2005), that there might be a higher entrepreneurial orientation for deans with fewer years of experience so the researcher conducted a one-tailed significance test ($\alpha = .05$). Data analysis revealed a significant negative correlation between the number of years in their current positions and the total self-reported entrepreneurial orientation scores of the participants in this study, $r(26) = -.364$, $p = .028$ (1-tailed).

The Pearson correlation test makes an assumption that the scores are normally distributed, yet evidence revealed that the years of experience variable was skewed as a result of an outlier in the data. The outlier in the years of experience variable identified a participant reporting 15 years of experience, which was 3 standard deviations above the mean. The data point was re-coded to the next highest value, 13 years of experience. Data analysis indicated a significant correlation between the number of years in their current position and the total entrepreneurial-orientation score of the participants, $r(26) = -.391$, $p = .02$ (1-tailed). The coefficient of determination (r^2) revealed that 15% of the variability in entrepreneurial-orientation scores was explained by the years of experience.

Results and Discussion

The first key finding of the study demonstrates that academic deans ranked team builder and proactive as the highest self-reported entrepreneurial characteristics. The second key finding suggests that academic deans' self-reported entrepreneurial orientation decreased the longer they were in their position. The third key finding shows that academic deans who were expected to engage in entrepreneurial activities, based on their job descriptions, have a higher self-reported entrepreneurial orientation. These results imply that academic deans in upstate New York are being hired with entrepreneurial characteristics and that years of job experience and expectations to engage in entrepreneurial activity could impact their entrepreneurial leadership.

This study expands on the research of entrepreneurial leadership of academic deans as well as the research on the overall nature of this position in higher education. The results provide strategies to assist deans in becoming more entrepreneurial in order to help address the current enrollment and financial challenges of higher education institutions. The results also add to the knowledge and research surrounding Clark's Entrepreneurial Framework (1998, 2004) and help to explore how deans may be dealing with fiscal challenges in higher education.

The deans reported a moderate to high self-reported entrepreneurial orientation with a mean total entrepreneurial score of 41.24 out of a possible 50.00. This finding suggests that, on average, the participants in the study perceived the following 10 entrepreneurial characteristics as being mostly characteristic of a person who embraces entrepreneurialism: innovative, risk-taker, creative, change agent, team builder, competitive, flexible, visionary, proactive, and persuasive. While results identified team builder as the highest ranked entrepreneurial characteristic, risk taking was ranked as the lowest entrepreneurial characteristic. Risk taking was also the lowest ranked characteristic reported by the independent college presidents in studies conducted by Riggs (2005) and Smith (2009). This may be due to the culture of the institution. If the groups and individuals to whom deans are accountable are averse to taking entrepreneurial actions, it may prevent these deans from developing entrepreneurial activities. Therefore, those who can gain support for entrepreneurial activities from the college or board of trustees, the president, alumni, members of their academic unit, and/or other groups for which they are responsible may be more likely to take risks and create more revenue sources.

The findings also indicated that the self-reported entrepreneurial orientation of the academic deans decreased with the number of years in the position. This finding may imply that some deans are being hired after already having several entrepreneurial characteristics. However, these characteristics may be diminished over time, which may be due to certain internal and external factors. For example, some deans may need to have experiences, while in the position, that provide them with entrepreneurial opportunities to maintain and further develop their entrepreneurial orientation. The lack of such opportunities could impact the entrepreneurial orientation of deans over time and decrease their self-perception of their entrepreneurial traits and skills.

According to the results, some deans in this study were expected to engage in entrepreneurial activity as part of their job responsibilities, which could have implications for a dean's ability to engage in entrepreneurial activity. For example, possible factors that might enhance a dean's ability to engage in entrepreneurial activities include (a) autonomy, control, and accountability in managing the budget in their area of responsibility; (b) incentives or rewards for increasing revenue; (c) clear job expectations regarding revenue-generating activities; and (d) a reduction in administrative loads or utilizing an assistant dean in order to have time to promote and create new entrepreneurial activities. Barriers that might impede entrepreneurial activity of a dean include the lack of (a) autonomy and control in managing the budget in their area of responsibility, (b) clear job expectations regarding revenue-generating activities, (c) incentives and rewards for creating new revenue sources, and (d) time to develop and support entrepreneurial activities. To this end, higher education institutions need to assess how existing job contracts and expectations support or hinder a dean's ability to develop and implement entrepreneurial activities.

Institutions of higher education may need to improve the likelihood that prospective candidates for academic dean positions are prepared to develop and implement entrepreneurial activities that support revenue-generating opportunities. To do so they might consider establishing search committees that are trained to assess candidates' experiences and successes in developing and implementing such activities. The selection criteria used by the search committees could then include the additional entrepreneurial characteristics identified in this study, such as team builder and being proactive.

Based on the results of the study, future studies might consider expanding the population to a larger geographic area and including academic deans from public colleges and universities. Conducting a study with a national population of academic deans might find more significant relationships between the variables. Future studies might also examine the different budget models used by institutions to determine the extent to which certain models impede or promote leaders' entrepreneurial activities. Given the changes occurring throughout higher education, future studies might also consider assessing the entrepreneurial orientations of non-academic leaders to assess how different departments are addressing fiscal challenges.

To increase the viability of entrepreneurial activities and ensure implementation of the suggested recommendations, I recommend that institutions consider creating a position that works closely with academic deans to assist in identifying, creating, supervising, and leading entrepreneurial initiatives and opportunities. For example, at Indiana University, the position of Assistant Dean for Resource Management was created to support the Dean of the School of Nursing with the development and deployment of resources (McBride et al. 2000). For smaller institutions, this type of position could be created to assist all academic deans, and possibly department chairs, in identifying opportunities and developing market-responsive quality entrepreneurial activities.

Limitations of this study must be identified. Its scope focused on academic deans working in four-year independent colleges and universities in upstate New York. Academic deans in public, for-profit, or two-year institutions were not included; and it only included deans who oversaw a school or division of a particular discipline. The researcher did not consider the culture or mission of the institution, number of full-time faculty members overseen by the academic dean, or institutional budget models.

Conclusion

Institutions of higher education are transforming themselves, and many leaders that serve these institutions are finding their roles changing as well. Some of these transformations are due to financial challenges caused by budget cuts, increased competition, and the increased role of technology and online learning (Edirisooriya 2003; Smith 2004; Thornton 2009; Williams 2015). Leaders at all levels in higher education must be ready to adapt to tough economic times by developing entrepreneurial characteristics and skills. Academic deans can become more entrepreneurial by acquiring the skills, knowledge, and dispositions to engage with both internal and external persons, groups, and entities while also ensuring that their original academic mission is honored during this period of transformation. Based on the findings of this study, I conclude that academic deans are in a position to be entrepreneurial leaders and should approach challenges as opportunities to improve the financial viability of their institution and to sustain and expand quality academic programs.

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