

ABSTRACT

Title of Dissertation: LEADERSHIP BEHAVIORS OF COMMUNITY
COLLEGE CHIEF EXECUTIVE OFFICERS IN INDIA
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May, 2019

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The purpose of this quantitative study was to use the theory of transformational leadership as measured by the Multifactor Leadership Questionnaire (MLQ) to investigate the differences in the leadership behaviors of Indian Center for Research and Development of Community Education (ICRDCE) affiliated community college CEOs based on their gender and age, and the job placement rate of community college vocational education and training (VET) graduates. Coined Skill India, VET program delivery is a high-priority, nationally ratified imperative focused on improving educational quality, accessibility, affordability, and quantity to drive employment. Implementation of VET requires a significant paradigm shift in infrastructure, pedagogy, and curricula outcomes aligned with domestic and international labor market requirements. In this study, transformative change referred to community college CEOs' active involvement in purposeful, empowering, and expansive leadership to achieve desired VET outcomes. A convenience sample of 30 out of 100 chief executive officers of ICRDCE affiliated community colleges completed the MLQ for this study. The MLQ is a standardized survey that assesses a range of transformational, transactional, and passive-avoidant leadership behaviors. Data analysis included

descriptive and inferential statistics. Community college CEOs' age and gender along with the job placement rate of community college VET graduates during the 2016-17 academic year comprised the independent variables, while the dependent variables were the MLQ's three major scales and nine subscales. The results of this study supported previous research linking transformational leadership to positive organizational outcomes. Findings related to gender and generational issues were noteworthy and contribute to the nascent body of empirical research on community college leadership in international contexts, particularly India.

LEADERSHIP BEHAVIORS OF COMMUNITY COLLEGE
CHIEF EXECUTIVE OFFICERS IN INDIA

by
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A Dissertation Proposal Submitted in Partial Fulfilment for
the Requirements of the Degree
Doctor of Education

Morgan State University

May 2019

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CHIEF EXECUTIVE OFFICERS IN INDIA

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Dedication

I dedicate this dissertation to my parents, Betty Jewel and Clarence D. Carter. If Alzheimer's had not debilitated my mother, she would be the first person to rejoice over this accomplishment for she instilled in me a joy for learning and passion for helping others, especially those from disadvantaged communities. My father, 98 years young and still a prolific reader and teacher, repeatedly asked me if I completed my "book" yet, putting a fire under every word in this dissertation. Spurring me on to completion with ceaseless prayers, indefatigable love, and high expectations, I owe an endless bounty of thanks to my siblings, Maria and Joe; my daughters by birth, Thokozani and Nokukhanya; my extended family of daughters, Carolla, Sakshi, and Miriam; my auntie and friend Elaine, executive assistant extraordinaire Monoj; and my dear partner, Philip.

To Pastor Fred and my soul sistas Clevette, Dolly, Rose, Jennifer, Judy, Mona, and Patricia, I thank you for boosting me up and for your prayers to slaughter my fears and keep me focused. I am grateful for the numerous challenges and opportunities throughout this process that deepened my faith in Jehovah Jireh.

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Acknowledgements

The support, inspiration, encouragement, and scholarly instructions from my dissertation chair, Dr. Robin Spaid, made all the difference in completing this study. She has been a friend and mentor for whom I am eternally grateful: The learning was rich, expansive, inspiring, and fun. My gratitude also extends to Dr. Sanjay Rai for never letting me stray from my completion goal and for the numerous stimulating conversations about India, and the links between my work, research, and statistics. I am indebted to them both and to Dr. Michael Parsons and Dr. Rosemary Gillett-Karam for actively serving on my committee as consummate teachers, as well as Dr. Tiffany Thompson-Johnson for her expert statistical guidance and patient tutelage. Montgomery College (Maryland, USA) provided me an invaluable platform to understand the potential of community colleges to transform lives and communities. Jindal Steel & Power Ltd. (India) has given me the freedom and support since 2011 to cross the boundaries of convention in order to innovate and implement community college programs that are changing the lives of rural Indians, their communities, and the nation. My life too has changed for the better in so many unexpected and amazing ways while in India. I am very grateful to Dr. Alphonse and his staff at ICRDCE (India) for supporting my request to conduct the survey among the ICRDCE affiliated college CEOs. ICRDCE also provided timely assistance for which I appreciate immensely. Finally, I extend my thanks to the CEOs who participated in the study.

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Chapter 1: Introduction

With a median age of 27 years and more than 1.2 billion citizens, India is home to the world's youngest and second largest population (Mourshed, Farrell, & Barton, 2012). Widespread unemployment, burgeoning job skills shortages, and low educational attainment rates thwart sustainable development (Agrawal, 2012; Government of India Planning Commission, 2011; World Bank, 2003). Furthermore, India is experiencing unrelenting population growth and persistent poverty coupled with an expanding global market economy and sporadic civil unrest that hasten the urgency to improve access to quality postsecondary education in order to enhance employability of graduates.

The Government of India (GOI) estimated that 500 million people will need vocational training by 2022 (Prasad et al., 2010). Labor market forecasts indicate that 110 million skilled persons will be required to fill vacant jobs during the same time period (Agrawal & Agrawal, 2017; Government of India, 2015). To accelerate human capital development and spur employment, the GOI has increased the number of institutions offering "short-cycle qualifications in the form of certificates and associate degrees" (Government of India Planning Commission, 2011, p. 101). Consequently, vocational education and training (VET) is at the nexus of ambitious mass education goals that are unmatched in the history of education (King, 2012).

The relationship between American community colleges, VET, and employment has not gone unnoticed by Indian leaders (American Association of Community Colleges, 2008; Boggs, 2010; Cohen, 2009; Cohen, 2011; Cohen, Brawer & Kisker, 2014; Mullin, 2013). The duration of community college VET curricula typically varies from three-month certificate options to two-year associate's degree programs: Both focus exclusively on preparing students for work (Carter, Francisco,

& Spaid, 2016; U.S. Department of Education, 2012). Given demand for VET, more than half of all community colleges in the United States offer VET programs (Cohen et al., 2014). As a result, VET credentials represent the majority of community college certificates and degrees (Dougherty, Lahr, & Morest, 2017). National data also revealed that 58% of working adults in America have a VET certificate (U.S. Department of Education, 2018). Roueche et al. (2008) aptly concluded that by establishing critical relationships with various constituents, from “business leaders, politicians, school official, parents, and students, community colleges become part of the fabric of change” (p. 23). The flexibility and responsiveness of community college programs to changing labor market requirements remain distinguishing institutional features that promote socioeconomic development (Cohen et al., 2014; Mendoza et al., 2017).

Not surprisingly, the first community colleges established in India in the mid-1990s were modeled after American community colleges (Alphonse, 2013). Their explicit focus was on educating economically disadvantaged and underserved communities of largely unemployed youths for local employment (Alphonse, 2013; Alphonse & Valeau, 2009; Panwar, 2013; Raby, 2009). Today there are more than 540 postsecondary community colleges nationwide with more than 278 community colleges under the aegis of the Indian Center for Research and Development of Community Education (ICRDCE) (Alphonse, 2013; George, 2013). The latter are considered among the oldest community colleges in the country (Alphonse, 2013). The proliferation of community colleges in India can be directly attributed to the nation’s need for VET to boost youth employment (Agrawal, 2012). However, research on community colleges in India is limited.

Background

Global economic interdependencies have compelled community colleges in the United States and in India to integrate current and anticipated labor market skills requirements into their curricula (Bailey & Belfield, 2013; Mourshed et al., 2012; Panwar, 2013; Raby, 2009). In December 2013, the Government of India announced a newly ratified quality assurance framework for VET (National Skills Development Agency, 2007). The National Skills Qualification Framework (NSQF) provides guidelines for curricula and related reforms linked to competency-based, VET outcomes (National Skills Development Agency, 2007). Incorporating VET skills and competencies into postsecondary education program delivery and outcomes represents a significant change in education policy and praxis in India.

Studies have shown that implementing transformative change magnifies the role of community college chief executive officers (CEOs) (American Association of Community Colleges, 2013; Boggs, 2003; Kezar, 2014; McNair, 2010; Roueche et al., 2008; Wallin, 2010). Roueche et al. (2008) asserted, “to align with this century, community colleges must adapt, forecast changes, and be creative with their solutions to higher education in an incongruous world” (p. 1). Creating an environment for students to develop knowledge-economy workplace skills was highlighted as an essential 21st century senior executive leadership requirement (Kezar, 2014; The Aspen Institute & Achieving the Dream, 2013). These combined leadership competencies play a critical role in marshalling the plethora of essential internal and external resources and institutional capacity building for innovative, responsive, demand-driven VET transformations (Dougherty et al., 2017; Shaffer, 2015).

Research on American community college CEOs further revealed that leaders who were adaptable, innovative, and able to develop new skills to respond to the complexities and multiplicities of contemporary leadership challenges achieved better institutional and student outcomes (Abbas, Iqbal, Waheed & Riaz, 2012; Kezar, 2014; McNair, 2010; The Aspen Institute & Achieving the Dream, 2013). Recent profile data on these CEOs indicated that their average age is 60 years, 64% are male, and 83% have doctorate degrees (American Council on Education, 2017). Limited empirical and descriptive data on their Indian counterparts, however, is an impediment to drawing conclusions from their background and leadership competencies.

The job placement rate of community college VET graduates is ostensibly a shared concern and an important educational outcome in the United States and in India (Cohen, 2009; Cohen, 2011; Dassance, 2011; Minaya & Scott-Clayton, 2017; Nickoli, 2013). For example, all postsecondary institutions in the U.S. that receive Title IV funding must disclose job placement rate data (Sykes, 2011). Sykes (2011) proposed a calculation for deriving a job placement rate data point that was adapted for use in this study. She asserted that the job placement rate of community college VET graduates represented gainful employment within 180 days of receipt of a VET credential for at minimum 13 consecutive weeks for eligible students. Ineligible students included those not interested in employment due to various reasons including health issues, visa status, and incarceration (Sykes, 2011). In India, policymakers and a variety of business sectors are among the dominant stakeholders that expect widespread improvement in postsecondary VET job placement rate outcomes. Thus, students completing VET programs should be job-ready and able to demonstrate workplace competencies aligned with labor market requirements.

The focus of this study was on leadership behaviors of community college CEOs in India. As an engine of human capital development, achieving VET higher education outcomes is critical to the growth of the Indian economy (Tome & Goyal, 2015). Transformative change was a recurring theme in this study. Research on higher education leadership is replete with definitions of transformative change. For the purpose of this study, transformative change referred to “intentional acts where a particular leader drives or implements a new direction” (Kezar, 2014, Preface, Location 145).

Theoretical Framework

Transformational leadership was used as the theoretical framework for this quantitative study of community college CEOs in India. Bass and Riggio (2006) defined transformational leadership as a comprehensive leadership model because it examines a range of leadership behaviors, specifically, transformational, transactional, and *Laissez-faire*, also referred to as passive-avoidant (Avolio & Bass, 2004). Avolio and Bass (2004) and Northouse (2016) identified four behavioral components of transformational leadership referred to as subscales. Collectively, these form one end of the transformational leadership theory continuum, specifically:

1. *Idealized Influence* characterizes the act of leading by modeling high moral standards that engender respect and trust, and inspires followers to emulate their leader’s actions. This scale is bifurcated in this study as *Idealized Attributes* and *Idealized Behaviors* (Avolio and Bass, 2004);
2. *Inspirational Motivation* describes a leadership behavior that promulgates visionary organizational expectations underscored by shared values and collective action to enhance performance that typically exceeds expectations (Avolio & Bass, 2004);

3. *Intellectual Stimulation* connotes leadership that promotes creativity, innovation, inquiry, and curiosity, as well as challenges the status quo to address organizational issues and achieve shared goals (Avolio & Bass, 2004); and

4. *Individualized Consideration* is emblematic of leadership that creates an enabling, supportive environment using empathy, mentoring, coaching, and personalized strategies to maximize the contributions of followers to achieve shared goals (Avolio & Bass, 2004).

Transactional leadership behaviors, comprising the middle range of the transformational leadership theory continuum, include two subscales that Northouse (2016) identified as:

1) *Contingent Rewards* describe explicit, individual benefits followers accrue from achieving expected organizational outcomes whereby leaders focus on incentivizing and rewarding individuals to perform their roles and responsibilities; and

2) *Management-by-Exception: Active* characterizes leadership strategies that compel and coerce followers to perform.

At the end of the transformational leadership theory continuum is a behavior described as both non-transformational and non-transactional (Northouse, 2016), specifically:

1) *Laissez-faire or Passive-Avoidant* describes the absence of leadership behaviors, particularly with respect to taking no responsibility for engaging, motivating, and inspiring followers; and

2) *Management-by-Exception: Passive* are leadership behaviors marked by avoidance or sporadic, limited involvement with followers.

Describing the differences between transformational leadership theory and other leadership models, Northouse (2016) emphasized that transformational leaders use developmental approaches cognizant of the interplay between their behaviors, organizational change, and the actions of others to achieve change, resulting in synergist, goal-driven growth for leaders and followers. Because of variations in human behavior as well as diverse contextual demands, Bass and Riggio (2006), Argia and Ismail (2013), and Kezar (2014) claimed that today's assorted challenges require leaders to use multiple leadership behaviors to achieve targeted outcomes. Transformational leaders have been shown to use transformational and transactional leadership behaviors (Northouse, 2016).

During a time of transformative change in higher education (Davis & Jones, 2014), American community college CEOs have overwhelmingly demonstrated transformational leadership behaviors (Jacobs, 2012; Taylor-Sawyer, 2004). For this study, therefore, transformational leadership theory seemed to be an appropriate investigative lens to establish a profile on leadership behaviors of community college CEOs in India. Kezar (2014) proffered three influencers of transformative change: the external environment, the institutional environment and culture, and college leaders and others who are agents of change. All three influencers impact community college CEOs in India. The country is tenuously positioned for rapid economic growth provided quantum reforms in the quality and relevance of VET are implemented expeditiously to abate unemployment and underemployment (Kotamraju, 2014).

Kotter (1996) defined transformational leaders as people who make change happen. Leading change to achieve specific outcomes underscores descriptions of transformational leadership theory (Northouse, 2016; Roueche et al., 2008). Burns

(1978) coined the phrase *leading through social change* which might explain the prevailing widespread appeal of transformational leadership research (Northouse, 2016). Community colleges in India are situated to contribute to economic as well as social change by responding to the clarion call to improve educational inequities and outdated instructional infrastructure and curricula, and to achieve exponential VET outcomes by 2022 (King, 2012; Kotamraju, 2014). Community college CEOs in India have a Herculean task ahead.

Are community college CEOs in India transformational leaders? Kouzes and Posner (2007) characterized transformational leaders as fomenting “a sense of belonging . . . in tumultuous times” (p. 122), whereas Bolman and Deal (2008) stressed that transformational leaders represent a form of symbolic leadership. Symbolic leaders inspire others through their actions and words (Bolman & Deal, 2008), a distributed approach to leadership premised on shared goals and engagement of others from across functional roles (D’Amico, Morgan, Katsinas & Friedel, 2014; Davis & Jones, 2014; Hemsall, 2014). Transformational leaders seem to use symbolic and distributed leadership strategies. It is important to note that compared with other leadership models, empirical data support the effectiveness of transformational leaders in meeting goals and leading organizational change (Bass & Riggio, 2006; Hallinger, 2003). This study aimed to fill a gap in the literature on leadership behaviors of community college CEOs in India.

The Multifactor Leadership Questionnaire (MLQ), hereinafter referred to as MLQ (see Appendix A), operationalizes transformational leadership theory constructs (Avolio & Bass, 2004; Bass & Riggio, 2006). The MLQ is a self-report survey that measures three leadership behaviors along with their subscales: (a) transformational, (b) transactional, and (c) passive-avoidant (Avolio, Walumbwa, & Weber, 2009; Bass

& Riggio, 2006; Northouse, 2016). Because of the MLQ's extensive use by researchers worldwide, including India, reliability and validity data supported its use in this study (Shiva & Suar, 2012; Singh, 2008; Walumbwa, Wang, Lawler, & Shi, 2004).

Purpose of the Study

Research posited that contemporary U.S. community college leaders are change-oriented (American Association of Community Colleges, 2013; Eddy & VanDerLinden, 2006; Hallinger, 2003). This assertion provided a potent argument for a study on community college CEOs in India. During a time of widespread change in community college VET in India and attendant growth in the number of community colleges, a study on leadership behaviors of CEOs should be useful in shaping leadership preparation and professional development programs, CEO recruitment, selection, and mentoring, as well as establishing performance benchmarks of senior leaders at the level of presidents (Boggs, 2003; Jacobs, 2012; McNair, 2010; Weisman & Vaughan, 2006). Further, this study should contribute to the nascent body of literature on community colleges outside of the United States (Floyd, Felsher, & Ramdin, 2015).

The purpose of this quantitative study was to use the theory of transformational leadership as measured by the Multifactor Leadership Questionnaire (MLQ) to investigate the difference in the leadership behaviors of Indian Center for Research and Development of Community Education (ICRDCE) affiliated community college CEOs based on their gender and age, and the job placement rate of community college vocational education and training (VET) graduates. The independent variables were the gender and age of community college CEOs, and the job placement rate of community college VET graduates. The job placement rate of

community college VET graduates represented students who completed community college VET programs during the 2016-17 academic year. The dependent variables were the transformational leadership behaviors and their related subscales as measured by the MLQ: transformational, transactional, and passive avoidant. An accompanying demographic survey was used to establish a baseline, descriptive profile of ICRDCE affiliated community college CEOs. The collected data included CEO demographics, specifically gender, highest educational level, and age. Empirical research on transformational leadership theory across a variety of organizational contexts provided inconsistent findings on any difference between the study's independent variables - gender and age, and transformational and transactional leadership (Barbuto, Fritz, & Matkin, 2007; Begum, Begum, Rustam, & Rustam, 2018; Chao, 2017; Flanigan, Bishop, Brachle, & Winn, 2017; Mani, 2013; Memom, 2014). Conversely, numerous studies have consistently associated transformational and transactional leadership behaviors with positive outcomes (Ghaus, Lhodi, & Shakir, 2017; Memom, 2014; Patnaik, Beriha, Mahapatra, & Singh, 2013; Poole, 2012; Seyal, 2015). The job placement rate of VET community college graduates, the third independent variable in the study, is increasingly considered as an institutional accountability outcome in India. Because there is a paucity of leadership research in India (Palrecha, Spangler, & Yammarino, 2012) and ICRDCE affiliated community colleges are among the most established community colleges in India, their CEOs comprised the target population for this study.

Research Questions

1. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and the job placement rate of VET

graduates, and transformational leadership behaviors as measured by the MLQ?

2. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and job placement rate of VET graduates, and transactional leadership behaviors as measured by the MLQ?
3. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and job placement rate of VET graduates, and passive-avoidant leadership behaviors as measured by the MLQ?

Significance of the Study

Keller (2001) surmised that societal and institutional complexities require higher education chief executive officers to focus on managing change. The magnitude of change, ambitious scale, and projected labor market requirements in India provide an impetus for examining community college CEO leadership behaviors in India. The findings from this study might provide insights and generalizations to the larger population of community college executives (Gall, Gall, & Borg, 2007) and might contribute to workforce development initiatives, VET policy and implementation, and further research.

Definition of Terms

The following terms are important to understanding the study:

Community college: Postsecondary institutions focused on providing vocational education and training for employment and job creation for marginalized, underserved learners primarily from rural areas in India (AICTE, 2012).

Multifactor Leadership Questionnaire (MLQ 5X): A highly reliable survey instrument developed to operationalize transformational leadership theory (Bass & Riggio, 2006).

Passive-Avoidant leadership: A behavioral leadership style that describes a non-committal indifference towards followers (Northouse, 2016).

Community college graduate: A student who has met the requirements for an institutional credential, i.e., certificate or degree (Title II, Higher Education Act, 2008).

Skills development: Education and training programs designed to result in market aligned competencies to enhance employment and job creation (National Skills Development Agency, 2007).

Transactional leadership: A behavioral leadership style representing a calculated exchange between leaders and followers for the purposes of meeting expected outcomes (Northouse, 2016).

Transformational leadership: A behavioural leadership style that encompasses moral and ethical growth, transformational leadership is described as a developmental process that inspires, empowers, and engages others to achieve collective goals rather than individualist ones (Avolio et al., 2009; Northouse, 2016).

Vocational education and training: An educational program focused on preparing learners for employment that is also referred to in India as career or technical education (AICTE, 2012).

Workforce education: VET in India focuses on building a competent, competitive, productive workforce to meet the labor market needs in an increasingly globalized economy (Mujamdar, 2008).

National Skills Qualification Framework (NSQF): A quality assurance framework that explicates learning outcomes, credits, recognition of prior learning, levels of competencies, and teaching and learning guidelines for vocational education in India (AICTE, 2012).

The MLQ was the survey instrument of choice used in this study to measure transformational leadership behaviors of community college CEOs in India affiliated with the Indian Center for Research and Development of Community Education (ICRDCE). The survey was administered online and in English. Notwithstanding these three delimitations, based on Khatri and Duggal's (2012) research that used the MLQ to assess bank leaders in India, English language proficiency of the target population of community college leaders was assumed. It was also expected that ICRDCE affiliated community college CEOs would be willing to participate in the study and would provide genuine, unbiased responses to each survey question. The researcher further surmised that study participants would understand the meaning of each survey question, be at ease with the Likert-scale survey format, as well as possess the requisite computer skills and have access to a computer to complete the online survey.

The study was limited to the availability of ICRDCE affiliated community college CEOs at the time of data collection. Quantitative data were gathered between August and November 2018, and included a request for the job placement rate for students completing VET programs during the academic year 2016-17. The researcher was at the behest of ICRDCE administrators to provide contact details of potential study participants. Rather than obtaining the entire list of 278 CEOs as requested, the researcher was provided a convenience sample of 100 CEOs.

Summary

Chapter 1 introduced the study and provided the statement of the problem, purpose of the study, theoretical underpinning, variables, research questions, definition of terms, significance of the study, assumptions, and limitations. Chapter 2 will offer a review of the literature on community college leadership, transformational

leadership theory, the evolution of the American community college as a model for vocational education and training in India, and a contextual discussion on community colleges in India. Globalization and social antecedents of community colleges will be discussed given that in today's knowledge-based economy, national growth and competitive advantage are increasingly aligned with having a skilled workforce (Mourshed et al., 2012; World Bank, 2003). Chapter 3 describes the study's research methodology, including an overview of the survey instrument, study participants, and analysis of data. Chapter 4 provides a summary of the descriptive and inferential statistics of the data, while Chapter 5 presents a discussion of the researcher's results, implications, and suggestions for future research.

Chapter 2: Review of the Literature

A global economic recession presaged the 21st century and cast a spotlight on community college vocational education and training (VET) programs. Despite labor market volatility and technological change, VET programs have historically aimed to prepare students for employment (Boggs, Elsner, & Irwin, 2017; D'Amico et al., 2014; Kaushik, 2014; Mullin & Phillippe, 2013; Wang & Seggie, 2013).

Community colleges in India are part of a multifaceted national strategy to develop the vocational skills of 500 million people by 2022 (All India Council for Technical Education, 2012; Government of India, 2010; King, 2010). Intentionally located in economically disadvantaged communities, these colleges have focused on providing low-cost, VET to marginalized, underserved students (Alphonse, 2013; Raby & Valeau, 2012). It is important to underscore that employment is a primary measurable outcome of this massive undertaking (Mellow & Katopes, 2009; Roggow, 2014; Wang & Seggie, 2013; Zhang & Hagedorn, 2014).

In India, community college describes a range of informal and formal VET institutions that serve an array of learners from school drop-outs to university graduates (Gross, 2017; Raby & Valeau, 2014). Community colleges in India are seen as engines of local economic development, social equity, and economic mobility (Alphonse & Valeau, 2009; King, 2010; Raby & Valeau, 2014). This study sought to further our understanding of community colleges in India that are associated with the formal, postsecondary education system.

Research has shown that transformational community college CEOs drive institutional change to achieve results (Malm, 2008). In their groundbreaking national study, Roueche, Baker, and Rose (1989) defined transformational leadership as “the ability of the community college CEO to influence the values,

attitudes, beliefs, and behaviors of others by working with and through them in order to accomplish the college's mission and purpose" (p. 23).

The pace of change for competency-based, industry-aligned VET in India is frenetic. However, there is a paucity of research on community colleges in India, including leadership behaviors and employment outcomes (Bailey & Xu, 2012; Bryman, 2007; D'Amico et al., 2014; King, 2012; Singh, 2012; Solis, Kupczynski, & Mundy, 2011; Wang & Seggie, 2013; Wong & Toraskar, 2009). The purpose of this quantitative study was to use the theory of transformational leadership as measured by the Multifactor Leadership Questionnaire (MLQ) to investigate the difference in the leadership behaviors of Indian Center for Research and Development of Community Education (ICRDCE) affiliated community college CEOs based on their gender and age, and the job placement rate of community college vocational education and training (VET) graduates.

Skilling India

The literature is replete with synonymous monikers for vocational education, including occupational education, career and technical education, vocational education and training, vocational training, skills training, and technical education (Boggs et al., 2017; Cowen et al., 2014; European Commission, 2014; Inayat, ul Amin, Inayat, & Badshah, 2013; Raby & Valeau, 2014; Viet, 2017). Pursuant to the setting of the study, where the term vocational education and training (VET) is used in the public domain, the researcher also used this term in reference to community college programs that result in occupationally oriented certificates and applied associate degrees (Cowen et al., 2014; Inayat et al., 2013).

Skilling India is the new mantra for VET, spawning collaborations between community colleges and industries to develop ways to integrate occupational knowledge, skills, and competencies for existing and future jobs (Boggs, 2011; Boggs et al., 2017; Carter, Pollard, & Rai, 2014; King, 2012; Kotamraju, 2014; Rath & Behera, 2014; Roggow, 2014; Wang & Seggie, 2013). Technological advances coupled with the effects of globalization have labor markets in a state of change from formerly low-skill manual work to jobs requiring higher intellectual and technical skills (International Labour Organization, 2017). This shift has resulted in widespread concerns in India about the quality, quantity, and outcomes of VET (Carnoy & Dossani, 2013; George, 2013; Jacob, 2016; Tilak, 2013; Tyndorf & Glass, 2017).

Community college chief executive officers (CEOs) affiliated with the Indian Centre for Research and Development of Community Education (ICRDCE) are at the vanguard of postsecondary VET change (Alphonse, 2013; Kotamraju, 2014). For example, Jacob (2016) provided an account of ongoing ICRDCE bi-national professional development partnership activities involving American and Indian community college personnel and Indian industries. ICRDCE, a coordinating body of approximately 278 community colleges across India (Gross, 2017), is credited with promulgating the growth of community colleges nationwide since its inception in 1998 (Gross, 2017; Alphonse, 2013). In this chapter, the researcher reviewed the literature that shaped this study, including an overview of American community colleges, perspectives on vocational education and training, transformational leadership theory, and change theory.

American Community Colleges

American community colleges have offered VET programs since the beginning of the 20th century (Cowen et al., 2014). These community colleges function within the formal higher education system and are distinguished by their responsiveness to the economic needs of local communities and open access (Boggs et al., 2017; Cowen et al., 2014; Dickeson, 1999). ICRDCE affiliated community colleges have embraced aspects of the American community college model to contextualize their programs (Alphonse, 2013; Gross, 2017; Raby & Valeau, 2012). An overview of several contributing factors will illustrate the relevance of this model for preparing a competitive 21st century workforce in India.

College Access. Individual mobility and social equity are two archetypal American democratic values codified in the 14th Constitutional Amendment (Brint & Karabel, 1989; Cohen et al., 2014; Dougherty, 1994). The first community college established in 1901 in Joliet, Illinois, was a uniquely American response to educate and train students that universities would not enroll often due to their economic class, ethnicity, race, gender, academic preparation, and religion (Cowen et al., 2014). Gilbert and Heller (2013) offered several cogent observations in their analysis of the seminal document from the President's Commission on Higher Education for Democracy, commonly referred to as the Truman Commission report of 1947. By all accounts, this milestone policy report continues to shape the foci of contemporary community colleges. The report stressed that community colleges should provide a free, egalitarian gateway to higher education, especially for educationally and economically disadvantaged populations. In addition, these colleges were expected to support economic mobility through vocational education

programs (Gilbert & Heller, 2013). Consequently, open access became a fundamental community college tenet resulting in unrestricted admission of predominantly low-income, working-class students, offering them a chance for social equity (Chase-Mayoral, 2017; Cohen et al., 2014; Ingram & Morrissey, 2009). For many students, community colleges still represent the only available opportunity for postsecondary education and training (Bailey & Morest, 2006).

Along with offering affordable VET programs for mass education, open access to community colleges indelibly etched their role in redressing economic inequalities (Amey, 2013; Boggs, 2003; Bragg, 2001; Cowen et al., 2014; Gilbert & Heller, 2013). Open access forged a transformative, common identity for community colleges (Boggs, 2004), one that extends beyond national borders today (Chase-Mayoral, 2017). According to Solis (2016), the public's response to community college VET programs is significant. She proffered that vocational certificates in the United States have increased more than 156% between 2000 and 2012.

The discourse on community colleges, however, also contends that community colleges are like other formal institutions, reproducing systemic societal divisions such as race, class, and gender embedded in the American polity (Brint & Karabel, 1989; Dougherty & Townsend, 2006). An example of structural division in India is the pervasive, socially constructed caste designations and consequent historical barriers to development (Ambedkar, 2014). Nonetheless, Dougherty and Townsend (2006) and Ingram and Morrissey (2009) concluded that the expansion of community college VET benefits national economic development and resulting social gains. For example, with reference to community college attendance versus nonattendance, Raby and Valeau (2014) concluded that “the educational experience

in itself is life-transforming and as such enhances social capital, especially for the less educated” (p.10).

Chase-Mayoral (2017) provided an alternative yet complementary perspective on how community colleges promote social capital, stating that by “combining organizational resources of a society in meaningful ways creates an organization of value to a community to further develop human capital” (p. 8). Despite socioeconomic stratification that arises from open access admission and low tuition costs (Raby & Valeau, 2014; Schedde & Goldrick-Rab, 2015), community colleges and their VET programs, nevertheless, support universal social, educational, and economic ideals (Chase-Mayoral, 2017; Schedde & Goldrick-Rab, 2015). These ideals give the model international appeal in general, and in India specifically.

Vocational Education and Training. The rapid pace of industrialization and subsequent growth of knowledge-based economies paralleled the need for education beyond high school to gain the applied skills and experience to compete for 21st century jobs (Carnevale, Jayasundera, & Gulish, 2016; Cowen et al., 2014). An extensive analysis of U.S. workforce data concluded that 30% of the jobs created in the next decade will require “some college” (Carnevale, Smith, & Strohl, 2010). Furthermore, reports indicated that U.S. community college VET certificates and associate degrees are associated with improved wages and employability (Carnevale et al., 2016; Carnevale, Rose, & Hanson, 2012). Employment data also revealed that “as many as 65 million people in the U.S. workforce may either have such certifications or the closely associated licenses to practice” (Kuczera & Field, 2013, p. 16). Although a comparable data point has

not been estimated in India, the explicit intent of increasing the number of community colleges is to accelerate employment.

Negative public perception of VET qualifications in the United States and in India, however, is prevalent given the overwhelming bias for university degrees (Roggow, 2014; Wang & Seggie, 2013). VET students are often characterized as academically weak and second-rate (Agrawal & Agrawal, 2017; Brint, 2003; Cowen et al., 2014). Nonetheless, VET has evolved to include a continuum of narrowly focused, short-cycle programs, applied associate degrees, and increasingly in India a bachelor's of vocation degree that prepare students for work or further education and training (Carter, Marmoelejo, & Spaid, 2016; Cowen et al., 2014; Gilbert & Heller, 2013; King, 2012; Mellow & Katopes, 2009; Skolnik, 2016; Wang & Seggie, 2013).

Community college programs in the United States and in India offer different types of VET credentials based on structural and systemic labor market policies, practices, and requirements (Cavanagh, Shaw, & Wang, 2013; D'Amico et al., 2014; Dellow, 2007; Gross, 2017; International Labour Organization, 2013; King, 2012; Lasonen, 2010; Mellow & Katopes, 2009). Program duration focus on skilling, retraining, and upgrading occupational skills of existing workers, and integration of general education and VET theory are also salient policy and program considerations (Agrawal, 2012; Boggs et al., 2017; Cavanagh et al., 2013; Cowen et al., 2014; Jacobs & Dougherty, 2006). Coupled with bachelor's degree and transfer programs (Cowen et al., 2014; Jacobs & Dougherty, 2006), the flexibility and outcomes of VET provide options for community college students and respond to their needs, prior educational experience, and expectations (Bailey, 2008; Cowen et al., 2014; Jacobs & Dougherty, 2006; Wang & Seggie, 2013).

Keely (2007) commented that employers worldwide will increasingly select job candidates based on their ability to demonstrate relevant labor market skills. The urgent need for community college VET is associated with several global phenomena. These include universal pronouncements of labor market skills shortages and mismatches (Cavanagh et al., 2013; D'Amico et al., 2014; Mourshed et al., 2012), high levels of youth unemployment (Carnevale et al., 2016; Mourshed et al., 2012; Organisation for Economic Development and Cooperation, 2017), and a shrinking workforce due to retirements, low birth rates in western countries, and technological innovations (Dobbs et al., 2012). Moreover, Boggs et al. (2017) pointed out the association between youth unemployment and public unrest, while Cavanagh et al. (2013), and Rath and Behera (2014) highlighted the role of VET in improving economies of scale.

Human Capital Development. Community college VET promotes “human capital” development (Boggs et al., 2017), a term that denotes “. . . the knowledge and skills people possess that enable them to create value in the global economic system” (World Economic Forum, 2017, p. iii). A World Economic Forum (2017) report revealed that globally only 62% of all human capital is developed. According to the report, Nordic countries, Switzerland, the United States, and Germany have the highest levels of human capital development, whereas south Asian and sub-Saharan African countries have the least developed human capital (World Economic Forum, 2017). India is grouped among the lower middle group of countries (Sachs, 2015).

Postsecondary educational attainment is a globally accepted indicator of human capital development (Baum & Payea, 2013), as well as an underlying reason for interest in improving community college completion rates in the United States

(Schudde & Goldrick-Rab, 2015). Bailey and Belfield's (2015) analysis of income data and educational background from a nationwide sample of 36,000 Americans revealed that community college VET certificates and degrees commanded higher wages than high school certificates and non-VET, academic baccalaureate degrees. Conversely, George (2013) attributed the chronically low employment rate of university graduates in India to a disjuncture between industry and higher education. However, exemplary ICRDCE affiliated community college job placement rates of VET graduates suggest that closely coupling VET outcomes and local labor market needs improve employability of graduates.

Community Colleges Leading Change

Raby and Valeau (2014) posited that “education is key for societal change” (p. 8). Change epitomizes community college operations (Woodland & Parsons, 2013), an outcome of enduring, flexible, and innovative responsiveness to myriad needs of local communities (Chase-Mayoral, 2017; Hines, 2011), industries (Roggow, 2014), and an increasingly diverse student population (Woodland & Parsons 2013). Further examples of change are reflected in the variety of partnerships to supplement shortfalls in public funding and consequent financial constraints, challenges to provide evidence of tangible student learning outcomes (Harnisch, 2011), demands for increased accountability (Harnisch, 2011), and the high volume of retirements of community college CEOs in the United States (Jacobs, 2012). In an increasingly competitive global economy, preparing work-ready students is a paramount concern (Boggs et al., 2017; Cowen et al., 2014; Eddy, 2017; Nevarez, Wood, & Penrose, 2013; Skolnik, 2016; Woodland & Parsons, 2013). The ability to adapt to change is a critical leadership skill (Amey, 2013).

Societal and institutional complexities, according to Keller (2001), have catapulted the management of change in higher education to front and center. In contrast to community colleges, universities historically have been slow to change at the structural level until “ideas have proven their worth” (Altbach, 2001). Economic and technological changes have affected businesses and labor markets at multiple levels, forcing community colleges CEOs to keep pace with and anticipate change (Payton, 2017). The distinguishing legacy of enrolling underserved and oft times disadvantaged students during a time of myriad disruptive economic and other challenges requires community college CEOs to be strategic agents of structural and institutional change, as well as advocates for socioeconomic equity (Kezar, 2013; Raby & Valeau, 2014; Woodland & Parsons, 2013).

The future growth, relevance, and sustainability of community colleges globally will be a function of the ability of community college CEOs to adapt quickly, anticipate, manage, implement, and capitalize on contextual, organizational, political, social, and economic change. Given macro and micro pressures, CEOs will need to maintain vigilance of the delicate balance between ensuring academic quality and economic outcomes (Eddy, 2017). Gillett-Karam (2017) portends that community college administrators will experience cycles of learning, unlearning, and relearning with due consideration to assumptions and biases informing decision-making and actions.

Change in Context. Northouse (2016), an eminent leadership scholar, mused that although leadership has been a frequently researched topic over the past 100 years, there are innumerable definitions. A common theme from among the various perspectives on leadership, however, is that leadership requires two or more people; one to lead and another to follow. How one leads is the critical element

and therein lies the dynamic complexity of the leadership relationship that has spawned numerous theories and approaches. An established assumption is that “leaders are those who have been trained and are motivated to be leaders” (Roueche et al., 1989, p. vii). Roueche et al. (1989) offered an outcomes-based definition of leadership, stating: “The goal of leaders is to motivate and inspire others to fulfil the community college mission” (p. viii). This assumption informed the current study.

Roueche et al. (1989) concluded that exceptional community college CEOs were transformational leaders. The team’s findings have subsequently shaped the American Association of Community Colleges’ (AACCC) national leadership competencies first published in 2005. The competencies are not considered sacrosanct, rather they presumably morph with the times and contexts, serving as a framework for self-assessment, professional development, leadership training, and candidate selection, as examples. The competencies proffer five key skills integral to community college leadership to support evolving missions as well as student completion (Ottenritter, 2012). Excluding resource management, four out of the five remaining AACCC leadership competencies are aligned with transformational leadership (Nevarez et al., 2013). Ottenritter (2012) asserted that the AACCC leadership competencies are not to be viewed in isolation but as an integrated behavioral, knowledge, and implicit experiential skills set as summarized below:

1. *Organizational Strategy* focuses on CEOs ensuring that internal and external ecosystems support an enabling, relevant, teaching, and learning environment;

2. *Institutional Finance, Research, Fundraising, and Resource*

Management pertains to CEOs focusing on fair and judicious allocation of adequate human, financial, and infrastructure resources;

3. *Communication* underscores CEOs having the facility to write and speak cogently, and use information technology to convey messages to diverse constituents;

4. *Collaboration* is demonstrated when CEOs foster, develop, and sustain relationships with internal and external constituents for the benefit of students; and

5. *Community College Advocacy* is evinced when CEOs act as community college proponents, demonstrating deep content and context knowledge (American Association of Community Colleges, 2013).

Change as the New Normal. Leading changing and challenging internal and external forces is the new normal for community college leaders in the 21st century (Eddy, 2010, 2017; Kezar, 2013; Woodland & Parsons, 2013). As societies evolve and globalization expands in the United States and in India, community college CEOs will increasingly need to anticipate and keep pace with change in order to survive (Eddy, 2010). Kezar (2013) aptly coined the concept *engaging change* to describe an intentional, active process of embracing or rejecting change in response to multiple contexts and perspectives. For community college CEOs, these multiplicities include local communities, government, and business; retrenched workers; policymakers; governing boards; and global partners (Nevarez et al., 2013).

Forecasting the needs of multiple constituents, community college leaders wrestle with competing demands and an overarching mission – student completion

(Woodland & Parsons, 2013), including VET programs which subsume workforce development (Katsinas, D’Amico, & Friedel, 2012). Achieving VET job placement results is considered an important institutional imperative to support economic policy and human development (Boggs et al., 2017).

Boggs (2011) argued that community college missions and values have a strong influence on community college CEOs. VET is an enduring yet intrinsically evolving community college mission that reflects institutional core values to serve local communities and business, and support socioeconomic mobility of low-income students (Boggs, 2004; Cowen et al., 2014; Dougherty & Townsend, 2006). These values underscore pressing social and economic needs in the United States and in India alike. Although leaders are found at several levels of community college administration (Ottenritter, 2012), “community colleges will look to their presidents for direction and motivation” (Woodland & Parsons, 2013, p. 27) to lead the change required to implement VET to meet known and unknowable human capital needs.

Gender and Cultural Lens. Findings from the Global Leadership and Organizational Behavior Effectiveness (GLOBE) longitudinal study on leadership categorized India as a high relationship oriented culture, a diametrically opposite orientation to the United States (Northouse, 2016). Cooperative work relationships between leaders and followers are a cornerstone of transformational leadership behaviors (Northouse, 2016). Studies on transformational leadership behaviors correlate positively with achieving organizational outcomes for both male and female administrative and executive higher education leaders (Alhourani, 2013; Avila, 2016; Jacobs, 2012; Hou, 2005; Stout-Stewart, 2005). Moreover, data reveal that male and female postsecondary CEOs overwhelmingly use transformational

leadership behaviors (Dean, 2013; Doherty & Manfredi, 2010; Hou, 2005; Jacobs, 2012). Relationship building and collaboration, however, are viewed as “female” behaviors, whereas resolute individualism is not only associated with males, but it is considered an effective CEO leadership orientation, especially in the U.S. (Bortz, 2014; Eagly & Carli, 2003). Jacobs (2012) concluded, however, that long-tenured women community college CEOs used passive-avoidant leadership behaviors in contrast with their newly minted counterparts. Research on women CEOs raises critical questions on the gendered nature of leadership behaviors and their implicit values (Bortz, 2014). The importance of this assertion is that males overwhelmingly occupy CEO positions in the U. S., and community colleges are no exception with women representing only 36% of all CEOs (American Council on Education, 2017). Pressure to adopt stereotypical male leadership behaviors is not uncommon among women in higher education leadership roles (Bortz, 2014; Coder & Spiller, 2013; Eddy & Cox, 2008). Eddy and Cox (2008) “recommend deconstructing the hegemonic norm of male leadership defining all leadership” (p. 77). Paradoxically, the researcher of this study remained cognizant of how internal and external influencers, and socially accepted leadership behaviors within the Indian community college context might predispose a biased, gendered response from female CEOs.

Empirical leadership research in India is woefully limited (Budwar & Varma, 2010) producing few indigenous theories that have scant reliability and validity data to support the constructs (Palrecha et al., 2012). The researcher of this study was also aware of the potential biases as a non-Indian female conducting research on Indian subjects in an Indian context. There was no shared history, language, socialization, or religion that may aid in interpreting the data. Moreover,

leadership theories and research, including transformational leadership studies, are overwhelming western (Den Hartog & Dickson, 2004), as is the researcher's education. Hofstede (2007) provided an insightful caution that also applies to gendered assumptions: "Culture is the collective programming of the mind which distinguishes the members of one group or category of people from another" (p. 413). The referenced programming can manifest as values, assumptions, orientation, worldview, and ways of interacting with others. Dickson, Castano, Magomaeva, & Hartog (2012) opined "leadership changes as a function of culture" (p. 483). The researcher has spent more than seven years working in India and was mindful of and consider ways to "cross the limits of [my] own thinking" (Hofstede, 2007, p. 419) as well as understanding when analyzing research data.

Community Colleges in India

India adapted the American community college open access mission and curricula responsiveness to address a multitude of social and economic needs exacerbated by its lengthy colonial history and colossal population of over 1.2 billion people. Approximately 50% of all Indians are below 30 years of age (George, 2013; Gross, 2017). The expansion of community colleges started en masse in 1995 with a singular goal: to provide economically disadvantaged students open access to affordable VET programs (Agarwal, 2006, 2009; Alphonse, 2013; Madras Centre for Research and Development, 2004). According to the United Nations Development Program, India ranked 131 among 188 countries worldwide on the Human Development Index (Human Development Report, 2016). The HDI is an aggregate measure of life expectancy, standard of living, and educational attainment.

Educational attainment through 12 years of secondary school in India is disconcertingly low for children who start first grade; estimated at 47% in some studies to 60% in others (Das, 2016; George, 2013; Government of India, 2014). The formal education system provides few options for school drop-outs, many of whom are concentrated in rural areas (George, 2013). Rural Indians are vulnerable and usually locked out of postsecondary education (Agarwal, 2006), exacerbating cycles of poverty, unemployment, and concomitant economic and social challenges and barriers. It is estimated that 70% of all Indians live in rural areas (Sachs, 2015); consequently, there is a disproportionately high number of underserved and academically underprepared students. This situation is aggravated by systemic educational inequities and meager resourcing of primary and secondary schools in rural communities (Agarwal, 2009).

Community colleges are situated in this context against which an understanding of their role, challenges, and potential emerges. These colleges were established as an alternative to highly selective, elitist, and costly universities (Agarwal, 2009; Carter et al., 2014; Tilak, 2013; Wong & Toraskar, 2009). There is a gross underrepresentation of community colleges in the country, totalling 540 of which 278 are affiliated with the ICRDCE (Alphonse, 2013). Labor market studies confirm that merely 5% of Indian workers between 20 to 24 years of age have formal vocational training or certification (Agarwal, 2007), a revealing data point.

Dr. Alphonse, a Jesuit priest, pioneered community colleges in India after a lengthy tour of American community colleges. He also founded the Indian Centre of Research and Development of Community Education (ICRDCE), an umbrella organization linking the majority of non-governmental community colleges in the

country (Wong & Toraskar, 2009). ICRDCE affiliated community colleges are distinguished by their “job-oriented, work-related, and skill-based education with an emphasis on life skills for successful integration in society” (Alphonse, 2012, p. 331). VET programs vary based on the needs of local communities and industries. ICRDCE affiliated community colleges typically offer short-term, six-months VET certificates, 12-month VET diplomas (Wong & Toraskar, 2009), and two-year associate degrees (George, 2013). Since 2008, ICRDCE affiliated community college VET certificates, diplomas, and degrees have been endorsed by Tamil Nadu state government, lending legitimacy to the credentials and credit transfer options to Tamil Nadu Open University (Gross, 2017). Strong partnerships with local industries to inform competency-based curricula and to provide internship opportunities for experiential learning have resulted in a reported 75% job placement rate for ICRDCE affiliated community college graduates (Alphonse, 2013).

Agrawal and Agrawal (2017) conducted seminal empirical research on labor market returns of formal VET in Indian secondary schools. They found that “two-thirds of trainees are employed in occupations related to their field of training”, a 20% increase compared to non-VET students (p. 255). For poor families where the monthly income is equivalent to \$60 U.S. dollars or less, the singular desired outcome of VET in India is employment. This viewpoint supports Raby and Valeau’s (2014) bold contention that any type of employment supplants the context, content, and quality of work.

Perhaps given the modicum of success of ICRDCE affiliated community college job placement outcomes coupled with mounting concerns about unemployment and underemployment of university graduates (George, 2013;

Gopalakrishnan, 2011), the Government of India (GOI) established 200 public postsecondary community colleges in 2012 (George, 2013; Gross, 2017). Public community colleges are not stand-alone institutions; rather they operate within existing polytechnics and universities (Gross, 2017). Coinciding with the scaling of community colleges, GOI legislated the National Skills Qualification Framework to standardize postsecondary curricula aligned with national occupational outcomes. A paucity of published research on community colleges makes it difficult to ascertain the impact of public or ICRDCE affiliated community colleges.

Increasing the number of community colleges is not a panacea for unemployment and underemployment, as well as workforce quality and productivity problems (Wang & Seggie, 2013). Despite VET advancing the ideal of improved higher education inclusivity in India, Gross (2017) predicted that community colleges face a precarious future due to haphazard operational practices, inadequate policy and accountability systems, and a mandatory paradigm shift to competency-based curricula without sufficient professional development. Community colleges in India are not only fractured but have multiple internal and external challenges to surmount in order to remain relevant, entrepreneurial, and results-driven, particularly given the current lack of human resource capacity (Wang & Seggie, 2013). The principle question of this study examined the transformational leadership behaviors of ICRDCE affiliated community college CEOs. Transformational leaders purportedly “embrace a vision that is much larger than themselves” (Hines, 2011, p. 84) to achieve notable results in community college job placement rates for VET graduates.

Transformational Leadership Theory

This study examined transformational leadership theory in the community college context in India. Burns (1978) heralded the popularity of transformational leadership theory research (Northouse, 2016). The construct of power was central to leadership, which was further distilled as an intentional exchange of motives and needs between two or more people to reach common goals (Burns, 1978). Burns wrote, “. . . leadership is a special form of power” (p. 11) that is either transactional or transformational (Northouse, 2016). Bass (1985) and Avolio and Bass (2004) further refined the theory, deviating from earlier writings on transformational leadership. The power element of transformational leadership theory was recast behaviorally as transformational leaders creating enabling, collaborative, trusting, and empowering relationships with followers (Northouse, 2016). Leadership thus entailed a broad spectrum of measurable behaviors including transformational and transactional leadership, the latter focused on benefiting individual needs and the former focused on loftier ideals of collectively achieving desired, shared outcomes for the benefit of the organization.

Transformational leadership theory comprises three major scales. The first one is transformational leadership, which has five subscales referred to as the five “I”s, specifically, Idealized Attributes, Idealized Behaviors, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration (Avolio and Bass, 2004). Transformational leaders, according to Northouse (2016), are actively involved with staff, establishing a shared vision and willingness among followers to achieve results for the greater good. The second scale is titled transactional leadership which has two subscales, specifically, Contingent Reward and Management-by-Exception: Active. Transactional leadership describes a

straightforward, hierarchical quid pro quo relationship built on rewards and incentives to induce change (Northouse, 2016). Finally, passive-avoidant leadership behaviors are part of the theoretical continuum and include two subscales. Management by Exception: Passive and *Laissez-faire* are associated with scant, low-level engagement with followers (Avolio & Bass, 2004).

For this study, transformational, transactional, and passive-avoidant leadership behaviors were measured using the Multifactor Leadership Questionnaire (MLQ). Although there are other transformational leadership models and assessment tools (Chaudhri, Kettunen, & Naskar, 2015; Kouzes & Posner, 2007; Muijs, Harris, Lumby, Morrison, & Sood, 2006; Northouse, 2016), the MLQ has extensive positive reliability and validity data in diverse settings globally (Chaudhri et al., 2015). Furthermore, previous research using the MLQ was indicative of cross-cultural sensitivity (Dickson et al., 2012) which was an important consideration given the context of this study. Conversely, transformational leadership theory and the MLQ specifically have detractors, particularly regarding the close psychometric similarities between the subscales, the appropriateness of fit and use of the MLQ in different organizational contexts and non-western cultures, and comparison groups (Antonakis, Avolio, & Sivasubramaniam, 2003; Dickson, Den Hartog, & Mitchelson, 2003; Hinkin & Schriesheim, 2008; Pellegrini, Scandura, & Jayarman, 2010; Schriesheim, Wu, & Scandura, 2009). These critical insights necessitate taking precautions in interpreting MLQ results.

Leadership Behaviors and Outcomes. Transformational leaders are regarded as change agents, according to the theory, individuals who effectively use multiple skills to transform and inspire followers to achieve shared goals for the

betterment of the organization. Chaudhuri et al. (2015) explained, “the transformational leader attempts to recreate an understanding between employee perception, performance and productivity” (p. 396). Relationship building is stressed. Eddy (2010) proposed a framework for multidimensional leadership that included five salient precepts for community college CEOs that also incorporate transformational leadership behaviors and further contextualize the MLQ assessment items, specifically,

- (1) There is no universal model for leadership.
- (2) Multidimensional leadership is necessary in complex organizations.
- (3) Leaders rely on their underlying cognitive schema in making leadership decisions.
- (4) Leaders often adhere to their core belief structure.
- (5) Leaders are learners (p. 32-33).

A study investigating management outcomes and transformational leadership in global higher education institutions provided evidence that transformational leadership behaviors have a positive impact on achieving outcomes (Argia & Ismail, 2013). Muijs et al. (2006) concluded that transformational leadership was the most dominant style among further education college CEOs in England. The VET mission of further education colleges in England is similar to community colleges in India and the United States. Onorato (2013) concluded from empirical data using the MLQ that transformational leadership facilitated positive student outcomes among elementary and secondary schools in America.

Hou (2005) found a relationship between transformational leadership, as measured by the MLQ, for male and female community college CEOs and positive institutional outcomes such as student transfer rate. Frage (2015) concluded in his study on community college leaders, including CEOs, that transformational leadership as measured by the MLQ correlated positively with job placement rates. Poole (2012) conducted mixed methods research using the MLQ and found that transformational leaders exhibited behaviors that contributed significantly to community college performance. His study presented disaggregated data that revealed both transactional and transformational leadership behaviors are associated with positive institutional outcomes. Aside from Jacobs' (2012) findings, the dearth of research correlating passive-avoidant behaviors and community college CEOs may be indicative of the impact of accumulated professional experience resulting in transformative leadership outcomes. This supports Northouse's (2016) assertion that transformational leadership theory and consequent measurement of relevant behaviors represent a developmental process that might be associated with a CEO's age. The limited research on leadership behaviors of university CEOs in India supports the use of transformational leadership to achieve organizational outcomes (Chaudhuri et al., 2015).

Change Theory

Change and adaptability aptly describe the community college VET ecosystem in India. Responsiveness to internal and external stakeholders illustrates adaptability in leaders, whereas change equates with innovative approaches to employment-driven VET in India (Kezar, 2014). Mars and Rios-Aguilar (2010) amplified these definitions, positing that "demand-side" change reflects changes in curricula that respond to labor market forces; and "supply-side" change describes

program innovations that implement anticipated change. Because VET community college graduate employment is an explicit institutional outcome in India, community college CEOs address multiple complex challenges and barriers to achieve this critical educational mobility, social equity, and economic development goal.

Kezar (2014) advanced a conceptual discussion of the term “change agent” that fit the study. She asserted that the demands on higher education leaders are different from the past and as such require agency, urgency, and a deep reflection on assumptions undergirding decision-making. Systemic change needed in community colleges in India demand the involvement and commitment of a broad constituency of individuals (Pearce & Conger, 2002). Comprehensive understanding of the interconnected contexts of change is an imperative (Kezar, 2014). For example, changing human capital requirements to higher level global knowledge-economy skills require community college CEOs to drive accountable change in curricula outcomes and instruction aligned with labor market requirements coupled with maintaining the integrity of academic outcomes (Peijun, 2010).

Responding to labor market forces to achieve economic development policy goals underscores a shift to an entrepreneurial focus, described conceptually in the literature as neo-institutional theory (Boggs, et al., 2017; Kezar, 2014).

Community colleges have used neo-institutional strategies since the 1960s when the policy environment encouraged expanding VET (Cowen et al., 2014). There are many definitions in the literature of neo-institutional theory (Mars & Rios-Aguilar, 2010). However, for this study the concept encompassed influencing change at multiple institutional levels using collaboration, consensus building, and

influencers to mobilize “grassroots leadership” for innovative, responsive change and results (Kezar, 2014; Mars & Rios-Aguilar, 2010). The constructs of the MLQ underpin the multiple skills inherent in neo-institutional theory.

Summary

Contextual social and economic imperatives facing community college CEOs in America and in India provide compelling reasons for change despite differences in historical antecedents as well as current social realities that have shaped their respective VET missions and expected outcomes. The two college systems share similar equity agendas and egalitarian values in an effort to provide opportunities for disenfranchised students and promote human capital development.

Chapter two provided an overview of the foundation of VET in community colleges in America and India and the intersecting, changing factors and challenges that spur community college CEOs to re-imagine and re-examine institutional ecosystems to achieve tangible results. Examining the difference in age and gender, and the job placement rate of VET community college graduates coupled with transformational leadership behaviors was the springboard question of this study. Chapter three will describe the methodology, sample, instrument, and statistical analysis for this study.

Chapter 3: Methodology

Overview

Community colleges in India are integral to the national agenda to produce a competitive, competent workforce for domestic and international labor markets (Wang & Toraskar, 2009). However, to achieve the required quantum of vocationally trained students, Gross (2017) and Kotamraju (2014) surmised that strategic reforms for community colleges in India are an imperative. Research indicates that transformational leadership has facilitated change in Indian higher education institutions (Chaudhuri et al., 2015; Patnaik, Beriba, Mahapatra & Singh, 2013). The Indian Centre for Research and Development of Community Education (ICRDCE) affiliated community colleges have historically focused on exclusively providing vocational education and training to improve employability of graduates (George, 2013; Wang & Toraskar, 2009). However, research on community college leadership in India is limited. The purpose of this quantitative study was to use the theory of transformational leadership as measured by the Multifactor Leadership Questionnaire (MLQ) to investigate the difference in the leadership behavior of Indian Center for Research and Development of Community Education (ICRDCE) affiliated community college CEOs based on their gender and age, and the job placement rate of community college vocational education and training (VET) graduates.

With one of the largest youth populations globally, India has a potential human capital advantage to export skilled workers beyond its borders. The resultant social progress from increased employment and remittances could abate rampant poverty in India (Sachs, 2015; Wang & Toraskar, 2009) and improve economic mobility (Nickoli, 2013; Schudde & Goldrick-Rab, 2015). Community colleges could play a critical role in transforming Indian society and preparing it for future economic

growth and social development (Carter et al., 2014; George, 2013; Wong & Toraskar, 2009). Identifying differences between the transformational leadership behaviors of CEOs and employment of community college VET graduates might provide insights on this critical institutional outcome (Mourshed et al., 2012; Muijs et al., 2006; Stuart, Rios-Aguilar, & Deil-Amen, 2014). Chapter three will provide details on the research methodology for the study. Also explicated in this chapter are the research questions, null hypotheses, research setting, and population of the study. Finally, the researcher provides information on instrumentation, procedures, and data analyses followed by a brief summary of the chapter.

Research Design

In this quantitative study, the researcher used a cross-sectional, survey research method. With cross-sectional data collection, the survey instrument was administered once to the population of the study (Creswell, 2009). A survey research design aligned well with the investigative nature of the research questions and the timeline for the study. Moreover, this method was appropriate as the researcher wanted to examine the self-reported leadership behaviors of community college CEOs in India.

Data were collected using an online survey, specifically, the self-rating form of the Multifactor Leadership Questionnaire (MLQ) that also included a researcher-developed preface to ascertain demographic characteristics and the job placement rate of community college VET graduates for the 2016-17 academic year. Unlike the traditional pen-and-paper based survey approach, the researcher deployed an online survey targeting the research population via electronic-mail for expediency and to accommodate the geographic spread in a more efficient, effective, and affordable manner.

Research Questions

Gleaned from literature on transformational leadership and change theories, three research questions shaped this study:

1. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and the job placement rate of VET graduates, and transformational leadership behaviors as measured by the MLQ?
2. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and job placement rate of VET graduates, and transactional leadership behaviors as measured by the MLQ?
3. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and job placement rate of VET graduates, and passive-avoidant leadership behaviors as measured by the MLQ?

Null Hypotheses

The research questions were associated with three null hypotheses, specifically;

- H₀₁: There is no difference in the transformational leadership behaviors of ICRDCE community college CEOs based on their gender and age, and the job placement rate of community college VET graduates.
- H₀₂: There is no difference in the transactional leadership behaviors of ICRDCE community college CEOs based on their gender and age, and the job placement rate of community college VET graduates.
- H₀₃: There is no difference in the passive-avoidant leadership behaviors of ICRDCE community college CEOs based on their gender and age, and the job placement rate of community college VET graduates.

Setting of the Study

The setting of the study encompassed 100 ICRDCE affiliated community colleges dispersed across 17 out of 29 states in India. Although these colleges are linguistically, culturally, and ethnically diverse, representing a microcosm of the second most populous nation globally, they share a common mission - vocational education and training. As job preparation and workforce development engines for economically disadvantaged populations, ICRDCE's *raison d'être* of these institutions is to provide VET programs for increasing the job placement rate of graduates (George, 2013; Wong & Toraskar, 2009).

Sample

The convenience sample comprised 100 out of the 278 chief executive officers of ICRDCE affiliated community colleges. CEOs in the context had several designations from principal, director, president, principal director, or a similar title. Upon a written request to ICRDCE for 278 contact details, the researcher received a deemed representative list of 100 participants. No further information on the selection process was provided.

Instrumentation

One of the most widely used instruments to assess transformational leadership theory is the Multifactor Leadership Questionnaire (Avolio & Bass, 2004; Bass & Riggio, 2006; Northouse, 2016). The current version of the MLQ (Form 5X), which has been used in research on U.S. and international subjects (Avolio & Bass, 2004), has robust reliability and validity data (Avolio et al., 2009; Bass & Riggio, 2006; Northouse, 2016). Palrecha et al. (2012) conducted leadership research in rural India on a non-profit organization and concluded that the MLQ was statistically reliable and valid in an Indian context. The researcher

used the self-rating form of the MLQ to investigate leadership behaviors of community college CEOs in India (Avolio & Bass, 2004).

The MLQ is a 45-item leadership behavior survey (see Appendix A) with a five-point Likert scale format and several yes/no items (Avolio & Bass, 2004). The MLQ measures transformational leadership theory constructs: (a) transformational leadership, (b) transactional leadership, and (c) passive-avoidant leadership (Avolio et. al, 2009; Bass & Riggio, 2006; Northouse, 2016). Table 1 presents the items for the MLQ scales and subscales from the test manual (Avolio & Bass, 2004).

Table 1.

Items of the MLQ Scales and Subscales

TRANSFORMATIONAL LEADERSHIP (THE 5“Is”)
Idealized Attributes (IA)
Instill pride in others for being associated with me Go beyond self-interest for the good of the group Act in ways that build others' respect for me Display a sense of power and confidence
Idealized Behaviors (IB)
Talk about my most important values and beliefs Specify the importance of having a strong sense of purpose Consider the moral and ethical consequences of decisions Emphasize the importance of having a collective sense of mission
Inspirational Motivation (IM)
Talk optimistically about the future Talk enthusiastically about what needs to be accomplished Articulate a compelling vision of the future Express confidence that goals will be achieved
Intellectual Stimulation (IS)
Re-examine critical assumptions to question whether they are appropriate Seek differing perspectives when solving problems Get others to look at problems from many different angles Suggest new ways of looking at how to complete assignments
Individual Consideration (IC)
Spend time teaching and coaching Treat others as individuals rather than just as a member of the group Consider each individual as having different needs, abilities and aspirations from others Help others to develop their strengths

Table 1.

Items of the MLQ Scales and Subscales Continued

TRANSACTIONAL LEADERSHIP
Contingent Reward (CR)
Provide others with assistance in exchange for their efforts Discuss in specific terms who is responsible for achieving performance targets Make clear what one can expect to receive when performance goals are achieved Express satisfaction when others meet expectations
Management-by-Exception: Active (MBEA)
Focus attention on irregularities, mistakes, exceptions, and deviations from standards Concentrate my full attention on dealing with mistakes, complaints and failures Keep track of all mistakes Direct my attention toward failures to meet standards
PASSIVE/AVOIDANT BEHAVIOR
Management-by-Exception: Passive (MBEP)
Fail to interfere until problems become serious Wait for things to go wrong before taking action Show a firm belief in "if it ain't broke, don't fix it" Demonstrate that problems must become chronic before I take action
Laissez-Faire (LF)
Avoid getting involved when important issues arise Am absent when needed Avoid making decisions Delay responding to urgent questions

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Procedures

The researcher sought permission and paid the required fees to use the MLQ from Mind Garden Incorporated (Avolio & Bass, 2004). Further, the researcher used the developers' hosting services for expediency, as the data collection schedule was time bound. The researcher submitted an application to the Institutional Review Board (IRB) at Morgan State University that was granted to conduct the study.

The independent variables for the study were the gender and age of community college CEOs, and the job placement rate of community college VET graduates of their respective colleges. The dependent variables were the transformational leadership behaviors and their subscales measured by the MLQ, specifically transformational leadership, transactional leadership, and passive-

avoidant. In addition, a self-report questionnaire (see Appendix B) was included as a preface to the MLQ to ascertain CEOs' demographic characteristics and the job employment rate of community college VET graduates.

Furthermore, on behalf of its 100 ICRDCE affiliated colleges, the researcher was given approval from the Director of ICRDCE to administer the online self-report, English language version of the MLQ. Thereafter, with IRB and ICRDCE approvals, the researcher requested informed consent from each participant in an introductory electronic mail whereby the researcher provided absolute confidentiality and anonymity of the results.

Data Analysis

Using SPSS statistical software, descriptive and inferential statistics were used to analyze the data from the MLQ. Results were presented as descriptive statistics, including means, standard deviations, frequencies, and percentages for self-reported leadership behaviors, demographic variables, and job placement rate of VET community college graduates. Inferential statistics were used to answer the research questions and to understand the difference between the independent variables, CEOs' gender and age, and the job placement rate of VET graduates, and the dependent variables which were transformational leadership, transactional leadership, and passive-avoidant leadership. Statistical tests of three-way ANOVA and MANOVA were employed to test the three hypotheses at .05 alpha level. The data analysis overview is illustrated in Table 2.

Table 2.

Data Analysis Overview for Research Questions

Research Question/ Hypothesis	Independent Variable(s)	Dependent Variable(s)	Statistical Procedure
RQ1/H₀₁	Job placement rate CEOs • Gender • Age	MLQ Scales and subscales Transformational Leadership behaviors -Idealized Attributes -Idealized Behaviors -Inspirational Motivation -Intellectual Stimulation -Individualized Consideration	Three-Way ANOVA MANOVA
RQ2/H₀₂	Job placement rate CEOs • Gender • Age	MLQ Scales and subscales Transactional Leadership behaviors -Contingent Rewards -Management-by-Exception (active)	Three-Way ANOVA MANOVA
RQ3/H₀₃	Job placement rate CEOs • Gender • Age	MLQ Scales and subscales Passive-Avoidant Leadership -Management-by-Exception (passive) -Laissez-faire	Three-Way ANOVA MANOVA

Summary

Leaders exercising transformational leadership are credited with effectively leading change resulting in achieving specific, shared results in higher education (Chaudhuri et al., 2015). However, there is a paucity of research on community college CEOs in India. This study aimed to use the theory of transformational leadership in an Indian community college context to examine leadership behaviors. The researcher presented a discussion of the research methodology for this quantitative study in Chapter 3. In addition, information was provided on the research design, sample, setting, research questions, null hypotheses, instrument, procedures and statistical analysis. Chapter 4 will present the statistical findings of the study.

Chapter 4: Results

The purpose of this quantitative study was to use the theory of transformational leadership as measured by the Multifactor Leadership Questionnaire (MLQ) to investigate the difference in the leadership behaviors of Indian Center for Research and Development of Community Education (ICRDCE) affiliated community college CEOs based on their gender and age, and the job placement rate of community college vocational education and training (VET) graduates. Chapter 4 summarizes the results of the Multifactor Leadership Questionnaire (MLQ) administered online to community college CEOs in India. Descriptive statistics were used to analyze the demographic characteristics of CEOs, while inferential statistics were used to test the three research questions. The researcher invited 100 ICRDCE affiliated community college CEOs to participate in the study and received 30 completed surveys (30% response rate). The survey was available online from August 1st, 2018 to November 25th, 2018.

Descriptive Statistics

Demographic Characteristics. The sample ($n = 30$) for this study consisted of female ($n = 21$, 70%) and male ($n = 9$, 30%) CEOs. The age distribution of the CEOs was as follows: 20% were under 30 years, 26.6% were 31 to 39 years, 3% were 40 to 49 years, 6% were 50 to 59 years, and 23.3% were 60 and older. The majority of female participants in this study were between the ages of 31 to 39 (28.6%) and 60 and older (28.6%), while the largest group of male participants were between the ages of 50 to 59 (33%). The highest educational qualification earned for male (56%) and female (57%) respondents was a master's degree, whereas 16.6% had less than a bachelor's degree. The findings for the demographic characteristics are presented in Table 3.

Table 3
Demographic Profile of the Participants by Gender

	Male		Female	
	No.	Pct	No.	Pct
Population	9	30%	21	70%
Age				
Under 30 years of age	2	22.2%	4	19.0%
31 to 39	2	22.2%	6	28.6%
40 to 49	1	11.1%	2	9.5%
50 to 59	3	33.3%	3	14.3%
60 and older	1	11.1%	6	28.6%
Highest Degree Earned				
Less Than Bachelor	2	22.2%	3	14.3%
Bachelor	1	11.1%	3	14.3%
Master	5	55.6%	12	57.1%
Doctorate	1	11.1%	3	14.3%

Transformational Leadership Behaviors

RQ1. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and the job placement rate of VET graduates, and transformational leadership behaviors as measured by the MLQ?

A three-way analysis of variance was conducted on the effects of the three independent variables (gender, age, and job placement rate of VET graduates) on participants' *Transformational Leadership* behaviors. Gender included two levels (male, female), age consisted of four levels (under 30 years of age, 31 to 39, 40 to 59, 60+), and there were two levels for job placement rate (80% and below, 81% to 100%). The researcher determined that the emphasis in India on job placement as a desired outcome for community college VET programs warranted an 80% cut-off

limit. Levene's F tests of equality of error variance were conducted to test the assumptions of the homogeneity of covariance matrices. The effect size was calculated using partial eta squared (ηp^2) with suggested effect sizes of small (.0099), medium (.0588), and large (.1379), Richardson, 2011).

Levene's F tests revealed that the assumption of the homogeneity of covariance was justifiable for *Transformational Leadership* behaviors (.789). The effect of gender was statistically significant at the .01 significance level. The overall model was statistically significant ($F(13, 16) = 3.466, p < .05, \eta p^2 = .738, \text{power} = .934$). There was a significant main effect for community college CEOs' gender ($F(1, 16) = 15.727, p < .01, \eta p^2 = .496, \text{power} = .961$) in relation to *Transformational Leadership* behaviors. The effect size was large (.496). The mean scores for male community college CEOs ($M = 16.64, SD = 1.381$) were significantly different from female community college CEOs ($M = 14.96, SD = 2.564$). Thus, in the sample, *Transformational Leadership* behaviors were higher among male CEOs than their female counterparts. The null hypothesis was rejected. The main effects for age ($F(3, 16) = 1.405, p = .278$) and the job placement rate of community college VET graduates ($F(1, 16) = 1.197, p = .290$) were not significant. The null hypothesis was retained. The two-way interaction effects between gender and age ($F(3, 16) = 1.401, p = .279$), gender and job placement rate ($F(1, 16) = 1.166, p = .296$), and age and job placement rate ($F(3, 16) = 3.018, p = .296$) were not significant. There was a statistically significant three-way interaction among the effects of job placement rate, gender, and age ($F(1, 16) = 12.685, p < .01$) on community college CEOs' *Transformational Leadership* behaviors. Simple main effects analysis showed that females, in this sample, under 30 years of age with a job placement rate of 80% or below *Transformational Leadership* behaviors were significantly higher than female

CEOs under 30 years of age with a job placement rate of 81% to 100% ($p = .003$).

The simple main effects also found that female community college CEOs age 40 to 59 with a job placement rate of 81% to 100% *Transformational Leadership* behaviors were significantly higher than female community college CEOs age 40 to 59 with a job placement rate of 80% or below ($p = .021$). These results are summarized in Table 4.

Table 4.

Three-Way ANOVA of Gender, Age, Job Placement Rate, and Transformational Leadership Behaviors

Source	Type III Sum of Squares	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P</i>	ηp^2
Dependent Variable: Transformational Leadership Behaviors						
Corrected Model	121.366	13	9.336	3.466	0.010	0.738
Intercept	4386.681	1	4386.681	1628.427	0.000	0.990
Job Placement rate	3.224	1	3.224	1.197	0.290	0.070
Gender	42.367	1	42.367	15.727	0.001	0.496
Age	11.351	3	3.784	1.405	0.278	0.208
Job Placement rate x Gender	3.141	1	3.141	1.166	0.296	0.068
Job Placement rate x Age	24.392	3	8.131	3.018	0.061	0.361
Gender x Age Group	11.325	3	3.775	1.401	0.279	0.208
Job Placement rate x Gender x Age	34.170	1	34.170	12.685	0.003	0.442
Error	43.101	16	2.694			
Total	7341.000	30				
Corrected Total	164.467	29				

Five “Is” of Transformational Leadership. Multivariate Analysis of

Variance (MANOVA) tests were conducted to assess the effects of the independent variables, gender (male, female), age (under 30 years of age, 31 to 39, 40 to 59, 60+), and job placement rate (80% and below, 81% to 100%) on the *Idealized Attributes*, *Idealized Behaviors*, *Inspirational Motivation*, *Intellectual Stimulation*, and *Individual Consideration* (dependent variables) of community college CEOs. Box’s *M* tests and Levene’s *F* tests of equality of error variance were conducted to test the assumptions

of the homogeneity of covariance matrices. Box's M test of equality of covariance matrices was not computed because there were fewer than two nonsingular cell covariance matrices. Levene's F tests revealed that the assumption of homogeneity of covariance was justifiable for *Idealized Attributes* (.633), *Idealized Behaviors* (.423), *Inspirational Motivation* (.253), *Intellectual Stimulation* (.235), and *Individual Consideration* (.509). Moreover, *Wilks' Lambda* (λ) was chosen since the homogeneity of variance was not in question and *Wilks'* is the most frequently reported MANOVA statistic.

A three-way MANOVA revealed a significant multivariate main effect for gender, $F(4, 13) = 15.269$, *Wilks' Lambda* (λ) = .175, $p < .001$, $\eta p^2 = .825$, power = 1.0; and age, $F(12, 35) = 2.287$, *Wilks' Lambda* (λ) = .402, $p < .05$, $\eta p^2 = .402$, power = .813. Also, there was a significant two-way interaction between age and job placement rate, $F(15, 34) = 2.154$, *Wilks' Lambda* (λ) = .155, $p < .05$, $\eta p^2 = .463$, power = .847. Further, there was a significant three-way interaction among gender, age, and job placement rate, $F(5, 12) = 5.428$, *Wilks' Lambda* (λ) = .307, $p < .01$, $\eta p^2 = .693$, power = .915. The multivariate effect sizes were estimated at .826 (gender), .444 (age), .463 (job placement rate x age), and .693 (job placement rate x age x gender), which suggest that 83%, 44%, 46%, and 69%, of the variance in the dependent variables, respectively, was accounted for by the independent variables. The power to detect the effects were .999, .813, .847, and .915, respectively. Thus, the null hypothesis was rejected, and it was concluded that there was a significant difference based on gender, age, and the three-way interaction among gender, age, and job placement rate. The significant results are summarized in Table 5.

Table 5.

Significant Multivariate Effects of Gender, Age, and Job Placement Rate on the Five “Is” of Transformational Leadership Behaviors

	Wilks' λ	F	df	<i>Error</i> df	p	η^2	<i>Observed</i> <i>Power</i>
Gender	.174	11.391	5	12	.000	.826	.999
Age	.171	1.999	12	35.528	.047	.444	.813
Job Placement Rate x Age	.155	2.154	15	33.528	.032	.463	.847
Job Placement Rate x Gender x Age	.307	5.428	5	12	.008	.693	.915

Given the significance of the overall test, the univariate main effects were examined. Significant univariate main effects for gender were obtained for *Idealized Influence Attributes*, $F(1, 16) = 6.550, p < .01, \eta^2 = .290$ power = .671; *Idealized Behaviors*, $F(1, 16) = 16.302, p < .01, \eta^2 = .505$ power = .966; *Inspirational Motivation*, $F(1, 16) = 10.535, p < .01, \eta^2 = .397$, power = .861; and *Intellectual Stimulation*, $F(1, 16) = 20.669, p < .001, \eta^2 = .564$, power = .989.

For *Idealized Attributes*, male community college CEOs' mean scores ($M = 3.00, SD = .451$) were higher than the mean scores of female CEOs ($M = 2.64, SD = .839$). For *Idealized Behaviors*, male community college CEOs' mean scores ($M = 3.42, SD = .342$) were higher than the mean scores of female CEOs ($M = 3.00, SD = .477$). For *Inspirational Motivation*, male community college CEOs' mean scores ($M = 3.58, SD = .377$) were higher than the mean scores of female CEOs ($M = 3.17, SD = .515$). Finally, for *Intellectual Stimulation*, male community college CEOs' mean scores ($M = 3.33, SD = .354$) were higher than the mean scores of female CEOs ($M = 2.74, SD = .527$). The null hypothesis was rejected.

Conversely, a univariate main effect for gender on *Individual Consideration*, $F(1, 16) = .070, p = .795$, was not significant. Thus, male ($M = 3.22, SD = .631$) and female ($M = 3.21, SD = .532$) community college CEOs' mean scores did not differ. The null hypothesis was retained.

Overall, the results suggested that female community college CEOs in the sample exhibited lower *Influence (Attributes and Behaviors)*, *Inspirational Motivation*, and *Intellectual Stimulation* than the male CEO sample. The results also suggested that male and female community college CEOs were similar regarding *Individual Consideration*.

Significant univariate main effects of age were obtained for *Idealized Behaviors*, $F(3, 16) = 3.495, p < .01, \eta p^2 = .396$, power = .667. *Post hoc* comparisons using LSD tests indicated that community college CEOs age 40 to 59 ($M = 3.50, SD = .354$) and 60 and older ($M = 3.36, SD = .197$) showed higher mean scores than CEOs age 31 to 39 ($M = 2.79, SD = .765$) in terms of *Idealized Behaviors*. The null hypothesis was rejected.

Conversely, no significant univariate main effects were indicated for age on *Idealized Attributes*, $F(3, 16) = .205, p = .891$; *Inspirational Motivation*, $F(3, 16) = 1.366, p = .289$; *Intellectual Stimulation*, $F(3, 16) = 2.078, p = .143$; and *Individual Consideration* $F(3, 16) = 1.709, p = .243$. Thus, community college CEOs' mean scores did not differ across age groups. The null hypothesis was retained.

Overall, the results suggested that community college CEOs age 31 to 39 in the sample showed lower *Influence Behaviors* than CEOs age 40 to 59 ($M = 3.50, SD = .354$) and 60 and older. The results also suggested that male and female community college CEOs were similar regarding *Influence Attributes*, *Inspirational Motivation*, *Intellectual Stimulation*, and *Individual Consideration*.

There was a statistically significant two-way interaction between the effects of job placement rate and age on community college CEOs' *Idealized Attributes*, $F(3, 16) = 3.418, p < .01, \eta p^2 = .391$ power = .656 and *Idealized Behaviors*, $F(3, 16) = 3.847, p < .01, \eta p^2 = .419$, power = .713. Simple main effects analysis of community college CEOs under 30 years of age with a job placement rate of 80% or below showed significantly higher *Idealized Attributes* than community college CEOs under 30 years of age with a job placement rate of 81% to 100% ($p = .028$). The simple main effects also indicated *Idealized Behaviors* were the same across the age groups for CEOs with a job placement rates of 80% or below and 81% to 100%.

There was a statistically significant three-way interaction among the effects of job placement rate, gender and age on community college CEOs' *Idealized Attributes*, $F(1, 16) = 7.255, p < .05, \eta p^2 = .312$ power = .715; *Idealized Behaviors*, $F(1, 16) = 12.148, p < .01, \eta p^2 = .432$ power = .905; *Inspirational Motivation*, $F(1, 16) = 8.855, p < .01, \eta p^2 = .356$, power = .798; and *Intellectual Stimulation*, $F(1, 16) = 6.398, p < .001, \eta p^2 = .286$, power = .661. Simple main effects analysis showed that female community college CEOs under 30 years of age with a job placement rate of 80% or below *Idealized Attributes* were significantly higher than female community college CEOs under 30 years of age with a job placement rate of 81% to 100% ($p = .007$). Simple main effects analysis also indicated that female community college CEOs age 40 to 59 with a job placement rate of 81% to 100% *Idealized Attributes* were significantly higher than female community college CEOs 40 to 59 with a job placement rate of 80% or below ($p = .017$). Simple main effects analysis showed that female community college CEOs under 30 years of age with a job placement rate of 80% or below *Idealized Behaviors* were significantly higher than female community college CEOs under 30 years of age with a job placement rate of 81% to 100% ($p =$

.005). Moreover, simple main effects analysis indicated that female community college CEOs age 31 to 39 with a job placement rate of 81% to 100% *Idealized Behaviors* were significantly higher than female community college CEOs under age 31 to 39 with a job placement rate of 80% or below ($p = .012$).

Simple main effects analysis showed that female community college CEOs 60 and older with a job placement rate of 80% or below *Inspirational Motivation* was significantly higher than female community college CEOs 60 and older with a job placement rate of 81% to 100% ($p = .022$). Finally, simple main effects analysis revealed female community college CEOs under 30 years of age with a job placement rate of 80% or below *Intellectual Stimulation* was significantly higher than female community college CEOs under 31 years of age with a job placement rate of 81% to 100% ($p = .009$). The null hypothesis was rejected.

The two-way interaction effects between gender and age, gender and job placement rate, and age and job placement rate were not significant regarding the five “Is” of transformational leadership. The results are presented in Table 6.

Table 6.
Univariate Effects of Gender, Age, and Job Placement Rate on the Five “Is” of Transformational Leadership

	Type III SS	df	MS	F	p	ηp^2	Observed Power
Gender							
Influence Attributes	9.001	1	29.402	6.550	.021	.290	.371
Influence Behaviors	9.001	1	2.104	16.302	.001	.505	.966
Inspirational Motivation	2.193	1	2.193	10.535	.005	.397	.861
Intellectual Stimulation	3.556	1	3.556	20.669	.000	.564	.989
Individual Consideration	.020	1	.020	.070	.795	.004	.057
Age							
Influence Attributes	.226	1	.075	.205	.891	.037	.080
Influence Behaviors	1.353	1	.451	3.495	.040	.396	.667
Inspirational Motivation	.853	3	.284	1.366	.289	.204	.294
Intellectual Stimulation	1.073	3	.358	2.078	.143	.280	.433
Individual Consideration	1.480	3	.493	1.709	.205	.243	.362
Job Placement rate x Age							
Influence Attributes	3.760	3	1.253	3.418	.043	.391	.656
Influence Behaviors	1.489	3	.496	3.847	.030	.419	.713
Inspirational Motivation	.898	3	.299	1.438	.269	.212	.308
Intellectual Stimulation	.867	3	.289	1.680	.211	.240	.356
Individual Consideration	.098	3	.033	.114	.951	.021	.066
Job Placement rate x Gender x Age							
Influence Attributes	8.312	1	8.312	11.276	.004	.413	.883
Influence Behaviors	8.312	1	8.312	11.276	.004	.413	.883
Inspirational Motivation	1.844	1	1.844	8.855	.009	.356	.798
Intellectual Stimulation	1.101	1	1.101	6.398	.022	.286	.661
Individual Consideration	0.309	1	0.309	1.069	.317	.063	.163

Transactional Leadership Behaviors

RQ2. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and the job placement rate of VET graduates, and transactional leadership behaviors as measured by the MLQ?

A three-way analysis of variance was conducted on the effects of the three independent variables (gender, age, and job placement rate) on participants' *Transactional Leadership* behaviors. Levene's F tests revealed that the assumption of the homogeneity of covariance was justifiable for *Transactional Leadership* behaviors (.104). The effect of gender was statistically significant at the .03 significance level (see Table 7). The overall model was statistically significant, $F(13, 16) = 2.533, p < .05, \eta p^2 = .673, \text{power} = .817$. There was a significant main effect for community college CEO's gender ($F(1, 16) = 15.727, p < .01, \eta p^2 = .496, \text{power} = .961$) on their *Transactional Leadership* behaviors. The effect size was large (.254). The mean scores for male community college CEOs ($M = 5.94, SD = .837$) were significantly different from female community college CEOs ($M = 5.16, SD = 1.366$). In general, male community college CEOs *Transactional Leadership* behaviors were higher than female community college CEOs. The null hypothesis was rejected. The main effects were not significant for community college CEOs' age ($F(3, 16) = .128, p = .725$) and the job placement rate of community college VET graduates ($F(1, 16) = 1.197, p = .290$). The null hypothesis was retained.

There was a statistically significant three-way interaction among the effects of job placement rate, gender, and age ($F(1, 16) = 6.830, p < .05, \eta p^2 = .299, \text{power} = .689$) on community college CEOs' *Transactional Leadership* behaviors. Simple main effects showed that female community college CEOs age 40 to 59 with a job

placement rate of 81% to 100% *Transactional Leadership* behaviors were significantly higher than female community college CEOs age 40 to 59 with a job placement rate of 80% or below ($p = .021$).

The two-way interaction effects between gender and age ($F(3, 16) = .695, p = .568$), gender and job placement rate ($F(1, 16) = 2.573, p = .128$), and age and job placement rate ($F(3, 16) = 1.330, p = .300$) were not significant. The results are presented in Table 7.

Table 7.

Three-Way ANOVA of Gender, Age, Job Placement Rate, and Transactional Leadership Behaviors

Source	Type III Sum of Squares	Df	MS	F	p	ηp^2
Dependent Variable: Transactional Leadership Behaviors						
Corrected Model	31.521	13	2.425	2.533	.040	.673
Intercept	518.474	1	518.474	541.679	.000	.971
Job Placement rate	.122	1	.122	.128	.725	.008
Gender	5.203	1	5.203	5.435	.033	.254
Age	1.988	3	.663	.692	.570	.115
Job Placement rate x Gender	2.463	1	2.463	2.573	.128	.139
Job Placement rate x Age	3.818	3	1.273	1.330	.300	.200
Gender x Age Group	1.996	3	.665	.695	.568	.115
Job Placement rate x Gender x Age	6.538	1	6.538	6.830	.019	.299
Error	15.315	16	.957			
Total	918.938	30				
Corrected Total	46.835	29				

Contingent Reward and Management-by-Exception: Active. Multivariate Analysis of Variance (MANOVA) tests were conducted to assess the effects of the independent variables, gender (male, female), age (under 30 years of age, 31 to 39, 40 to 59, 60+), and job placement rate (80% and below, 81% to 100%) on the *Contingent*

Reward and Management-by-Exception: Active (dependent variables) of community college CEOs.

Box's M test ($p = .954$) indicated that the homogeneity of covariance assumption was met. Levene's F tests revealed that the assumption of the homogeneity of covariance was justifiable for *Contingent Reward* (.540) but not for *Management-by-Exception: Active* (.008). Although *Management-by-Exception: Active* Levene's F tests were statistically significant ($p < .01$), the homogeneity of variance was considered satisfied to proceed with the MANOVA for all dependent variables.

A three-way MANOVA revealed main effects were not significant for community college CEOs' gender ($F(2, 15) = 2.924, p = .085$), age ($F(6, 30) = 1.334, p = .273$), and the job placement rate of community college VET graduates ($F(2, 15) = 2.026, p = .166$). The null hypothesis was retained. A significant three-way interaction was evident among gender, age, and job placement rate, $F(2, 15) = 4.027, Wilks' Lambda (\lambda) = .651, p < .05, \eta p^2 = .349, power = .626$. The multivariate effect sizes were estimated at .349, which suggests that 35% of the variance in the dependent variables was accounted for by the independent variables. The power to detect the effects was .626. Thus, the null hypothesis was rejected, and it was concluded that there was a significant difference based on the three-way interaction among gender, age, and job placement rate. These significant results are summarized in Table 8.

Table 8.

Significant Multivariate Effects of Gender, Age, and Job Placement Rate on Contingent Reward and Management-by-Exception: Active

	Wilks' λ	F	df	Error df	P	ηp^2	Observed Power
Job Placement rate x Gender x Age	.651	4.027	2	15	.040	.349	.626

The main effects were not significant for community college CEOs' gender ($F(1, 16) = 4.395, p = .052$), age ($F(3, 16) = 2.056, p = .147$) and the job placement rate of community college VET graduates ($F(1, 16) = 2.088, p = .168$) on *Contingent Reward*. The main effects were also not significant for community college CEOs' gender ($F(1, 16) = 3.042, p = .100$), age ($F(3, 16) = .697, p = .567$), and the job placement rate of community college VET graduates ($F(1, 16) = 1.393, p = .255$) on *Management-by-Exception: Active*. The null hypothesis was retained.

There was a statistically significant three-way interaction between the effects of job placement rate, gender, and age on community college CEOs' *Management-by-Exception: Active*, $F(1, 16) = 8.578, p < .05, \eta p^2 = .349$ power = .785, but not for *Contingent Reward*, $F(1, 16) = .217, p = .648$. Simple main effects analysis for female community college CEOs age 40 to 59 with a job placement rate of 80% or below *Management-by-Exception: Active* was significantly higher than female community college CEOs age 40 to 59 with a job placement rate of 81% to 100% ($p = .014$). The simple main effects also found that male community college CEOs age 40 to 59 with a job placement rate of 80% or below *Management-by-Exception: Active* was significantly higher than male community college CEOs age 40 to 59 with a job placement rate of 81% to 100% ($p = .025$).

The two-way interaction effects between gender and age, gender and job placement rate, and age and job placement rate were not significant for transactional leadership behaviors. The significant results are presented in Table 9.

Table 9.

Significant Univariate Effects of Gender, Age, and Job Placement Rate on Contingent Reward and Management-by-Exception: Active

	Type III SS	df	MS	F	P	ηp^2	Observed Power
Job Placement rate x Gender x Age							
Contingent Reward	.038	1	.038	.217	.648	.013	.265
Management-by-Exception: Active	5.583	1	5.583	8.578	.010	.349	.785

Passive-Avoidant Leadership Behaviors

RQ3. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and the job placement rate of VET graduates, and passive-avoidant leadership behaviors as measured by the MLQ?

A three-way analysis of variance was conducted on the effects of the three independent variables (gender, age, and job placement rate) on participants' *Passive-Avoidant Leadership* behaviors. Levene's *F* tests revealed that the assumption of the homogeneity of covariance was not met for *Passive-Avoidant Leadership* behaviors (.021). Although *Passive-Avoidant Leadership* behaviors Levene's *F* tests were statistically significant ($p < .05$), the researcher proceeded cautiously in interpreting the results.

The overall model was statistically significant ($F(13, 16) = 3.994, p < .05, \eta p^2 = .764, \text{power} = .965$). No significant main effects were found for community college CEOs' gender ($F(1, 16) = 1.797, p = .199$), age ($F(3, 16) = 2.282, p = .118$), and the job placement rate of community college VET graduates ($F(1, 16) = 1.580, p = .227$) on their *Passive-Avoidant Leadership* behaviors (see Table 10). The null hypothesis was retained.

There was a statistically significant two-way interaction between the effects of job placement rate and gender ($F(1, 16) = 14.247, p < .01, \eta p^2 = .471, \text{power} = .943$), job placement rate and age ($F(3, 16) = 5.779, p < .01, \eta p^2 = .520, \text{power} = .884$), and gender and age ($F(1, 16) = 7.186, p < .01, \eta p^2 = .574, \text{power} = .945$). Simple main effects analysis showed that female community college CEOs with a job placement rate of 81% to 100% *Passive-Avoidant Leadership* behaviors were significantly higher than female community college CEOs with a job placement rate of 80% or below ($p = .021$). The simple main effects also found that community college CEOs age 60 and older with a job placement rate of 81% to 100% *Passive-Avoidant Leadership* behaviors were significantly higher than community college CEOs age 60 and older with a job placement rate of 80% or below ($p = .035$). Finally, simple main effects analysis showed that male community college CEOs under 30 years of age *Passive-Avoidant Leadership* behaviors were significantly higher than female community college CEOs under 30 years of age with a job placement rate of 80% or below ($p = .006$). The three-way interaction effects among job placement rate, gender, and age ($F(3, 16) = 1.004, p = .951$) were not significant. The results are presented in Table 10.

Table 10.

Three-Way ANOVA of Gender, Age, Job Placement Rate, and Passive-Avoidant Leadership Behaviors

Source	Type III SS	Df	MS	F	P	ηp^2
Dependent Variable: Passive-Avoidant Leadership Behaviors						
Corrected Model	25.666	13	62.450	3.994	.005	.764
Intercept	62.450	1	.781	1628.427	.000	.888
Job Placement rate	.781	1	.888	1.197	.227	.090
Gender	.888	1	3.384	15.727	.199	.101
Age	3.384	3	7.043	1.405	.118	.300
Job Placement rate x Gender	7.043	1	8.571	1.166	.002	.471
Job Placement rate x Age	8.571	3	10.656	3.018	.007	.520
Gender x Age Group	10.656	3	.002	1.401	.003	.574
Job Placement rate x Gender x Age	.002	1	7.909	12.685	.951	.000
Error	7.909	16	.494			
Total	141.875	30				
Corrected Total	62.450	29				

Management-by-Exception: Passive and Laissez-Faire. Multivariate

Analysis of Variance (MANOVA) tests were conducted to assess the effects of the independent variables, gender (male, female), age (under 30 years of age, 31 to 39, 40 to 59, 60+), and job placement rate (80% and below, 81% to 100%) on the *Management-by-Exception: Passive and Laissez-faire* (dependent variables) of community college CEOs. Box's *M* test ($p = .817$) indicated that the homogeneity of covariance assumption was met. Levene's *F* tests revealed that the assumption of the homogeneity of covariance was justifiable for *Laissez-faire* (.746), but not for *Management-by-Exception: Passive* (.021). Although *Management-by-Exception: Passive* Levene's *F* tests were statistically significant ($p < .05$), the homogeneity of variance was considered satisfied to proceed with the MANOVA analyses for all dependent variables.

A three-way MANOVA revealed no significant main effects for community college CEOs' gender ($F(2, 15) = .842, p = .450$), age ($F(6, 32) = 2.019, p = .094$), and the job placement rate of community college VET graduates ($F(2, 15) = 3.023, p = .079$). The null hypothesis was retained. There was a statistically significant two-way interaction between the effects of job placement rate and gender ($F(2, 15) = 11.257, p < .01, \eta p^2 = .600, \text{power} = .976$), job placement rate and age ($F(6, 30) = 3.115, p < .05, \eta p^2 = .384, \text{power} = .850$), and gender and age ($F(6, 30) = 3.591, p < .01, \eta p^2 = .418, \text{power} = .903$). The multivariate effect sizes were estimated at .600, .384, and .418, respectively, which suggest that 60%, 38%, and 42% of the variance in the dependent variables, respectively, was accounted for by the independent variables. The power to detect the effects was .676, .850, and .903, respectively. Thus, the null hypothesis was rejected, and it was concluded that there was a significant difference based on the two-way interactions between job placement rate and gender, job placement rate and age, and gender and age. These significant results are summarized in Table 11.

Table 11.

Significant Multivariate Effects of Gender, Age, and Job Placement Rate on Management-by-Exception: Passive and Laissez-Faire

	Wilks' λ	F	df	Error df	p	ηp^2	Observed Power
Job Placement Rate x Gender	11.257	15.269	2	15	.001	.600	.976
Job Placement Rate x Age	3.115	2.287	6	30	.017	.384	.850
Gender x Age	3.591	7.288	6	30	.008	.418	.903

There was a statistically significant two-way interaction between the effects of job placement rate and gender on community college CEOs' *Laissez-faire*, $F(1, 16) = 22.904, p < .001, \eta p^2 = .589, \text{power} = .994$). Simple main effects analysis showed that

female community college CEOs with a job placement rate of 81% to 100% *Laissez-faire* behaviors were significantly higher than female community college CEOs with a job placement rate of 80% or below ($p = .019$). The simple main effects also found that male community college CEOs with a job placement rate of 80% or below *Laissez-faire* behaviors were significantly higher than male community college CEOs with a job placement rate of 81% to 100% ($p = .006$).

There was also a statistically significant two-way interaction between the effects of job placement rate and age on community college CEOs' *Management-by-Exception: Passive*, $F(3, 16) = 4.078, p < .05, \eta^2 = .433, power = .741$, and *Laissez-faire*, $F(3, 16) = 3.761, p < .05, \eta^2 = .414, power = .702$. Simple main effects analysis showed that community college CEOs age 40 to 59 with a job placement rate of 81% to 100% *Management-by-Exception: Passive* behaviors were significantly higher than community college CEOs age 40 to 59 with a job placement rate of 80% or below ($p = .014$). The simple main effects also found that community college CEOs under 30 years of age with a job placement rate of 80% or below *Laissez-faire* behaviors were significantly higher than community college CEOs under 30 years of age with a job placement rate of 81% to 100% ($p = .003$). Further, community college CEOs age 60 and older with a job placement rate of 81% to 100% *Laissez-faire* behaviors were significantly higher than community college CEOs age 60 and older with a job placement rate of 80% or below ($p = .003$).

Finally, there was a statistically significant two-way interaction between the effects of gender and age on community college CEOs' *Management-by-Exception: Passive*, $F(3, 16) = 3.315, p < .05, \eta^2 = .383, power = .642$, and *Laissez-faire*, $F(3, 16) = 6.875, p < .01, \eta^2 = .563, power = .935$. Simple main effects analysis showed that male community college CEOs under 30 years of age *Management-by-Exception:*

Passive behaviors were significantly higher than female community college CEOs under 30 years of age ($p = .031$). The simple main effects also found that male community college CEOs under 30 years of age *Laissez-faire* behaviors were significantly higher than female community college CEOs ($p = .006$). The results are presented in Table 12.

Table 12.

Univariate Effects of Gender, Age, and Job Placement Rate on Passive-Avoidant Leadership Behaviors

	Type III SS	df	MS	F	p	ηp^2	Observed Power
Job Placement rate x Gender							
Management-by-Exception: Passive	0.890	1	0.890	2.844	.111	.151	.354
Laissez-faire	2.926	1	2.926	22.904	.000	.589	.994
Job Placement rate x Age							
Management-by-Exception: Passive	8.312	1	8.312	11.276	.025	.433	.741
Laissez-faire	1.844	1	1.844	8.855	.032	.414	.702
Gender x Age							
Management-by-Exception: Passive	8.312	1	8.312	11.276	.047	.383	.642
Laissez-faire	1.844	1	1.844	8.855	.003	.563	.935

Summary

The findings of the three-way ANOVA and MANOVA analyses summarized in this chapter answered the three research questions delineated in this study. Descriptive statistics were used to analyze characteristics of community college CEOs. Three-way ANOVA tests were calculated to assess whether leadership behaviors of community college CEOs differed based on their gender and age, and the

job placement rate of community college VET graduates. Three-way MANOVA tests were also calculated to assess whether the subscales of the leadership behaviors of community college CEOs differed based on their gender and age, and the job placement rate of community college VET graduates. Chapter 5 will provide a discussion of the findings, conclusions, and recommendations.

Chapter 5: Summary, Discussion, and Recommendations

Chapter 5 provides a discussion of the researcher's finding in relation to the theoretical framework and extant literature. The format of this chapter includes an introduction and summary of the research, a sequential discussion on the results of the three research questions along with the limitations of the study. The chapter concludes with recommendations for future research.

Introduction

Preparing a competent, competitive workforce for existing and future jobs has ignited sweeping policy changes in India's vocational education and training (VET) ecosystem. The pressing need is for postsecondary institutions to respond to evolving labor market demands for relevant occupational outcomes to increase exponentially the number of job-ready graduates (Ragini, 2018). Reports suggest that a mere 20% of the potential workforce of persons ages 15 to 59 have employable skills (Ragini, 2018). This is woefully inadequate for sustainable growth. Moreover, at least 110 million skilled persons are needed annually through 2022 to fill existing and expected job vacancies (Agrawal & Agrawal, 2017; Government of India, 2015). Championing community colleges as engines of human resource development, the Indian Center for Research and Development of Community Education (ICRDCE) has 278 affiliated community colleges under its banner. ICRDCE is also leading the way in community college VET reforms (Jacob, 2016). However, the paucity of published, empirical research on community colleges in India and community college leadership was the impetus for this study.

Summary of the Study

The purpose of this quantitative study was to use the theory of transformational leadership as measured by the Multifactor Leadership Questionnaire

(MLQ) to investigate the difference in the leadership behaviors of Indian Center for Research and Development of Community Education (ICRDCE) affiliated community college CEOs based on their gender and age, and the job placement rate of community college vocational education and training (VET) graduates.

Understanding leadership behaviors could contribute to strengthening the impact of community colleges in India, particularly in relation to increasing employability of VET graduates.

Thirty out of 100 (30%) study participants from the convenience sample completed the 45-item Multifactor Leadership Questionnaire (MLQ) and accompanying researcher-developed demographic survey. The MLQ, one of the most popular research instruments used globally to test transformational leadership theory (Northouse, 2016), was administered online and in English to ICRDCE CEOs during the fall 2018 semester. Study participants occupy the highest administrative post at their respective community college. Their anonymity was assured in writing to encourage an unbiased response to survey items.

Community college CEOs' age and gender along with the job placement rate of community college VET graduates during the 2016-17 academic year comprised the independent variables, while the dependent variables were the MLQ's three major scales and nine subscales. Three conditions had to be met in determining the job placement rate of community college VET graduates, delineated as (a) the percentage of employed community college vocational education and training graduates completing programs during the 2016-17 academic session, (b) employed within six months after program completion, and (c) for a minimum of three months. Thus, monitoring and tracking of employed VET graduates was required.

The MLQ scales that aligned with the theoretical constructs of transformational leadership theory were (a) transformational leadership behaviors, (b) transactional leadership behaviors, and (c) passive-avoidant behaviors (Avolio & Bass, 2004). Validity and reliability tests supported the goodness of fit of the MLQ constructs (Antonakis et al., 2003; Avolio & Bass, 2004). Dhammika et al. (2014) and Ghaus et al. (2017) performed similar tests to establish the validity and reliability of the instrument with an Asian population.

The sample size of 30 participants met the minimum convention needed to conduct inferential statistical analyses. SPSS statistical software was used to apply all statistical tests, including the three-way ANOVA and MANOVA. Descriptive statistics of self-reported data were used to summarize the demographic profile of the participants. The sample was overwhelmingly female (70%). Two equally sized groups of CEOs represented the majority of female participants (57.2%), specifically, age 31 to 39 years, and 60 years and older, whereas the 50 to 59 years of age group represented the largest concentration of male CEOs (33.3%). The percentage of master's degree holders reflected the highest earned degree for males (55.6%) and females (57.1%), which is unlike their U.S. counterparts who overwhelmingly hold a doctorate degree (Edwards, 2017). Due to limited published information or research on community college leaders in India, it is an unknown whether the data on participants' gender, age, and educational background were representative of ICRDCE affiliated community college CEOs. Available descriptive data on postsecondary CEOs in America and internationally indicate that there is a preponderance of male CEOs (American Council on Education, 2017; Begum et al., 2018; Bortz, 2014; Ghaus et al., 2017). Nonetheless, women are increasingly

assuming top leadership positions in academia (Madden, 2005). The results of the current study, therefore, provide a basis for future research.

Transformational Leadership Behaviors

RQ1. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and the job placement rate of VET graduates, and transformational leadership behaviors as measured by the MLQ?

The null hypothesis was rejected for research question one. The results of the current study, however, add to the inconsistent findings from MLQ research on gender and transformational leadership behaviors. Research has revealed that women exhibit transformational leadership behaviors more frequently than men (Avolio & Bass, 2014; Begum et al., 2018; Chao, 2017; Chaudhuri et al., 2015; Madden, 2005). A similar finding was indicated for women community college CEOs (Edwards, 2017; Jacobs, 2012; Paternoster, 2006; Taylor-Sawyer, 2004). However, a close examination of gender in the current study indicated male community college CEOs' scored higher on the *Transformational Leadership Behaviors* scale than female community college CEOs. This result is not supported in the literature. For example, Hou's (2005) research found no difference in transformational leadership behaviors between male and female community college CEOs.

Conversely, community college CEOs' *Transformational Leadership Behaviors* revealed no difference overall in terms of age, which is supported in the literature (Avolio & Bass, 2004, Flanigan et al., 2017; Jacobs, 2012). There was a difference noted for the *Individualized Behavior* (IB) subscale. CEOs age 40 to 60 were higher on the IB scale than CEOs age 31 to 39 years. Therefore, the null hypothesis for this independent variable was rejected. The differences found between

the MLQ transformational leadership behaviors and related subscales and the job placement rate of community college VET graduates concur with research results that transformational leadership is associated with positive outcomes (Avolio & Bass, 2004; Dickson, Castano et al., 2012; Hua, 2005; Singh, 2008).

For example, the researcher found differences among female community college CEOs under 30 years of age with a job placement rate of 80% or below in relation to *Transformational Leadership Behaviors* whereby their *Idealized Attributes* behaviors were different from female community college CEOs under 30 years of age with a job placement rate of 81% to 100%. The small sample size of the study and subsequent disaggregated groups for age warrant further investigation of the two-way interactions between age and job placement rate. Interestingly, Jacobs (2012) used the MLQ for a study on American community college CEOs and found a significant relationship between the number of years in a CEO position and transformational leadership, implying that age might be a contributing factor. Northouse (2016) suggested that transformational leadership behaviors develop over time, which supports Jacobs' findings. Furthermore, transformational leadership behaviors are purported to subsume transactional leadership behaviors (Avolio & Bass, 2004).

Five “Is” of Transformational Leadership. The five “Is” of Transformational Leadership refer to the MLQ’s subscales, specifically *Influence Attributes*, *Influence Behaviors*, *Inspirational Motivation*, *Intellectual Stimulation*, and *Individualized Consideration* (Avolio & Bass, 2004). Research results on the subscales are inconclusive regarding the difference between male and female CEOs in the U.S. Hou (2005) found no differences between male and female community college CEOs on all the subscales, whereas, Paternoster (2006) and Taylor-Sawyer (2004) results were similar: Female community college CEOs scored higher than

males on all five subscales. Conversely, in the current study, the MLQ subscale results for *Influence Attributes*, *Influence Behaviors*, *Inspirational Motivation*, and *Intellectual Stimulation* were different for male community college CEOs. Male CEOs' scores were higher than their female counterparts. Finally, there were no differences for male or female CEOs related to *Individual Consideration*. This finding is not supported in the literature.

Other significant findings for the five "Is" included a difference in the *Influence Behaviors* result among community college CEOs age 31 to 39 years and CEOs age 40 to 59, and 60 and older age groups. Differences in *Influence Behaviors* and *Inspirational Motivation* were also shown among the 60 and older age group with a job placement rate of 80% or below. This group's scores for both subscales were higher than their peers with a job placement rate of 81% to 100%.

The three-way effects between job placement rate, gender, and age were noteworthy only for females and the five "Is". The researcher found differences among female community college CEOs under 30 years of age and 40 to 59 years of age and the job placement rate on the overall *Transformational Leadership* scale and *Idealized Attributes* subscale. There also was a cluster of differences among female CEOs' results for *Idealized Behaviors*, *Inspirational Motivation*, and *Intellectual Stimulation*. These differences among female CEOs coupled with the overall *Transformational Leadership* result for male CEOs is not supported in the literature and warrants further examination, particularly with respect to examining the possible effects of contextual factors, culture, and the interplay of gendered leadership and generational differences (Alhourani, 2013; Coder & Spiller, 2013; Den Hartog & Dickson, 2004).

Alatawi's (2017) analysis refuted the existence of the five "Is", questioning whether the absence of difference in any one of them affects the transformational leadership score. Significant differences were found in the current study among four out of five subscales along with an overall difference in transformational leadership behaviors between males and females. What the study's results mean related to the absence of any differences for the *Individual Consideration* subscale also requires further investigation.

Transactional Leadership Behaviors

RQ2. For CEOs at India's ICRDCE affiliated community colleges, is there a difference among gender, age, and the job placement rate of VET graduates, and transactional leadership behaviors as measured by the MLQ?

The researcher rejected the null hypothesis for research question two on the basis of the findings of this study. Male community college CEOs' *Transactional Leadership* behaviors were higher than female community college CEOs. Further, the simple main effects revealed that female community college CEOs age 40 to 59 with a job placement rate of 81% to 100% *Transactional Leadership* behaviors were significantly higher than female community college CEOs age 40 to 59 with a job placement rate of 80% or below. The literature does not support this finding (Begum et al., 2018). Seyal (2015) reported a preference for transformational leadership among CEO-type leaders of technical and vocational institutions in Brunei. His results do not support the results of the current study. Because transformational leadership has been popularized in the public domain as the most effective approach in the workplace, Muijs et al. (2006) speculated that the results from their mixed methods study on transformational leadership reflected a response bias in favor of

transformational leadership behaviors. They observed that “older and female respondents were some somewhat less likely to report engaging in transactional leadership” (p. 100).

Contingent Reward and Management-by-Exception: Active. The multivariate findings for *Contingent Reward* and *Management-by-Exception: Active*, the two subscales that comprise *Transactional Leadership* behaviors, indicated that there were significant differences among gender, age, and job placement rate. The results showed that female and male community college CEOs age 40 to 59 with a job placement rate of 81% to 100% *Management-by-Exception: Active* was significantly higher than their counterparts with a job placement rate of 80% or below. In addition, differences were indicated for females age 31 to 39. Apropos, researchers have concluded that *Contingent Reward* correlated with transformational leadership behaviors and that this subscale is particularly resonant with millennials (Bodenhausen & Curtis, 2015).

Passive-Avoidant Leadership Behaviors

RQ3. For CEOs at India’s ICRDCE affiliated community colleges, is there a difference among gender, age, and the job placement rate of VET graduates, and passive-avoidant leadership behaviors as measured by the MLQ?

The researcher rejected the null hypothesis for research question three on the basis of the findings in this study. There was an overall difference between female community college CEOs and CEOs who were 60 and older. The literature supports this result (Jacobs, 2012).

Management-by-Exception: Passive and Laissez-Faire. The multivariate findings for *Management-by-Exception: Passive* and *Laissez-faire*, the two subscales

of Passive Avoidant leadership behaviors, indicated that there were significant differences based on the two-way interactions between job placement rate and gender, job placement rate and age, and gender and age. The results showed a difference among community college CEOs' *Management-by-Exception: Passive* scores for those participants age 40 to 59 with a job placement rate of 81% to 100%. There were also differences found in the *Laissez-faire* scores among community college CEOs under 30 years of age and 60 and older and related to their job placement rate.

The researcher observed that passive-avoidant behaviors were infrequently reported in the literature on postsecondary administrators. Results were admittedly not calculated or not reported. Northouse (2016) asserted that passive avoidant is the absence of leadership behaviors. This might explain the paucity of research results for this scale in an education context. The findings from the current study require further investigation. Table 13 provides a summary of significant results.

Table 13.
Summary of Significant Results

Independent Variables	Transformational Leadership						Transactional Leadership			Passive Avoidant		
	Overall	IA	IB	IM	IS	IC	Overall	CR	MBEA	Overall	MBEP	LF
Job Placement Rate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gender	D	D	D	D	D	ND	D	ND	ND	ND	ND	ND
Male	H	H	H	H	H		H					
Female	L	L	L	L	L		L					
Age	ND	ND	D	ND	ND	ND	ND	ND	ND	ND	ND	ND
31 to 39			L									
40 to 59			H									
60 and older			H									
Job Placement Rate x Gender	ND	ND	ND	ND	ND	ND	ND	ND	ND	D	ND	D
Female CEOs with a job placement rate of 80% or below										L		L
Female CEOs with a job placement rate of 81% to 100%										H		H
Male community college CEOs with a job placement rate of 80% or below												H
Male community college CEOs with a job placement rate of 81% to 100%												L
Job Placement Rate x Age	ND	D	ND	D	ND	ND	ND	ND	ND	D	D	D
Under 30 years of age with a job placement rate of 80% or below		H										H
Under 30 years of age with a job placement rate of 81% to 100%		L										L
40 to 59 with a job placement rate of 80% or below											L	
40 to 59 with a job placement rate of 81% to 100%											H	
60 and older with a job placement rate of 80% or below										L		L
60 and older with a job placement rate of 81% to 100%										H		H

Note: ND – (No Difference) H – (Higher Level)

D – (Difference) L – (Lower Level)

Table 13.

Summary of Significant Results Continued

Independent Variables	Transformational Leadership						Transactional Leadership			Passive Avoidant		
	Overall	IA	IB	IM	IS	IC	Overall	CR	MBEA	Overall	MBEP	LF
Gender x Age	ND	ND	ND	ND	ND	ND	ND	ND	ND	D	D	D
Male community college CEOs under 30 years of age										H	H	H
Female community college CEOs under 30 years of age										L	L	L
Job Placement Rate x Gender x Age	D	D	D	D	D	ND	D	ND	D	ND	ND	ND
Female CEOs under 30 years of age with a job placement rate of 80% or below	H	H	H		H							
Female CEOs under 30 years of age with a job placement rate of 81% to 100%	L	L	L		L							
Female CEOs age 31 to 39 with a job placement rate of 80% or below			L		H		L					
Female CEOs age 31 to 39 with a job placement rate of 81% to 100%			H		L		H					
Female CEOs age 40 to 59 with a job placement rate of 80% or below	L	L							L			
Female CEOs age 40 to 59 with a job placement rate of 81% to 100%	H	H							H			
Male CEOs age 40 to 59 with a job placement rate of 80% or below									H			
Male CEOs age 40 to 59 with a job placement rate of 81% to 100%									L			
Female CEOs 60 and older with a job placement rate of 80% or below				H								
Female CEOs 60 and older with a job placement rate of 81% to 100%				L								

Note: ND – (No Difference) H – (Higher Level)

D – (Difference) L – (Lower Level)

Limitations

The small sample size of 30 participants contributed to the list of limitations and warrants a cautionary note not to generalize the findings. Restricting the study's participant pool only to ICRDCE affiliated CEOs presented another limitation. In addition, the sample for this study was not a random sample of the population. A multi-year comparison of job placement rate data could have strengthened the veracity of the study's results. Furthermore, the researcher's definition for the job placement rate was another limitation. For example, the definition might not have aligned with available data. In India, unlike in the U.S., there is no universally accepted definition for job placement rate for community college VET graduates despite the emphasis on improving postsecondary VET employment outcomes. Another possible limitation was administering the MLQ online. Accessing and completing the study might have been a daunting task for some participants. In addition to reviewing the availability of computers to complete the survey, the researcher could have also conducted a pilot of the MLQ among a random sample of community college CEOs not selected for the study to proactively identify impediments to completing the survey. These might have included several MLQ questions that contained American colloquialisms. The MLQ developers asserted that test item redundancy addresses language anomalies (Avolio & Bass, 2004). Additionally, the timing of data collection could have limited participation in the study. Finally, the research design was limited to using the self-report version of the MLQ.

Recommendations

Community college vocational education and training occupies a unique niche in the higher education system in India, advancing gainful employment and social equity, equal opportunity for disadvantaged populations, as well as economic and human development. These ideals are particularly pertinent for rural Indians who constitute over 70% (Sachs, 2015) of the population and are the primary target beneficiaries of community college VET (Alphonse, 2013). Yet, data on chronically low educational attainment rates portend that rural Indians will remain marginalized and relegated to vulnerable employment largely in the informal economy (Sharma, 2018). Furthermore, the disproportionately low number of community colleges in the country does not bode well for the radical transformation that skilling 500 million people in 10 years, demands. Paradoxically, community colleges are expected to implement sweeping operational and instructional reforms aligned with national and international labor market demands, yet labor market information systems, accountability structures, infrastructure, and organizational and human resource capacity to effect and monitor change are inadequate (Gross, 2017). Given negligible documented evidence of professional development for community college CEOs in India and scant empirical research on this group, opportunities abound to contribute to the literature on global community college leadership at the crossroads of change.

The new normal for community college VET in India will require rapid responses to constantly changing labor market demands and technological advances altering current and future workplace skill requirements. Below are recommendations for further research to explore and enhance our understanding of community college leadership in India.

- Cross-cultural research opines that Indian workplace values are predominantly hierarchical and collectivist in contrast with individualistic values prevalent in the United States (Hofstede, 2007; Northouse, 2016; Pellegrini et al., 2010; Pereira & Ashish, 2015). Collectivism, in the context of this study, might be germane: The researcher's results for the *Individual Consideration* (IC) subscale of transformational leadership may be indicative of this cultural difference. In contrast with MLQ research findings for U.S. community college leaders, the researcher's results for males and females revealed no differences for IC. This subscale focuses on a dyadic, mentoring relationship between leaders and followers, whereas in hierarchical, collectivist cultures there is not only distance between leaders and followers, but a focus on group cohesion and loyalty rather than on individual advancement. Establishing an individual development plan in consort with one's leader would be an example of an IC activity. Future community college research in India is suggested on the IC subscale correlated with collectivism constructs. 81
- Another example of a cultural dimension unearthed in the study related to the researcher's exclusive use of electronic mail. By western standards, electronic mail is an accepted, efficient means of communication. Although information communication technologies are regularly used in India, the researcher might have made an imprudent assumption as a foreigner that one could garner unconditional support to conduct successfully an online survey. Obtaining 30 participants for this study was challenging and required frequent reminders from the researcher and ICRDCE's Director. Future researchers in a global context should take 81

cognizance of implicit socio-cultural norms and plan accordingly on relevant research protocols. Suggestions in an Indian research context include meeting with prospective participants prior to administering an online survey to build rapport, ascertain possible implementation challenges, and discuss the purpose of the research and issues of anonymity. Calling each participant to answer his/her questions while ensuring their confidentiality might have increased the participation rate. Essentially, a relational touch was needed that built trust to allay multiple expressed concerns about the use of the data and queries about the personal benefits of participation. An explanation of the latter point might be a reflection of limited exposure to participating in research (Palrecha et al., 2012).

- Community colleges in India, given their focus on VET, are poised to contribute to local solutions to myriad development challenges in resource limited settings. The limitations of this study suggest a need to replicate this study to confirm the findings for accepting and rejecting the null hypotheses. This might further strengthen our understanding of ICRDCE community college leadership. Furthermore, extending the participant pool to include public community college leaders could provide compelling comparative data. Using a wider variety of variables, such as moderating, intervening, and predictor variables, would allow for a more comprehensive study of community college leaders in India that would not only contribute to the literature, but provide insights on the role and meaning of CEO leadership in community colleges. Given the results of the current study, using the MLQ as the independent variable is suggested not only to

understand differences but relationships among the variables. Finally, expanding the research methodology to a mixed methods approach is also suggested. Interviews with CEOs centered on personal descriptions of their leadership behaviors using the MLQ subscales as a framework might identify differences imbedded in Indian culture and socialization, as well as moderating variables.

- The researcher's results suggest that the MLQ is an appropriate tool to examine leadership behaviors in India, supporting earlier findings from south Asia (Dhammika et al., 2014; Ghaus et al., 2017; Zwingmann et al., 2014). Interestingly, differences were revealed between the job placement rate of VET graduates and each of the three major scales of the MLQ and all of the subscales except *Individual Consideration* and *Contingent Reward*. What those differences mean in community colleges in India needs further investigation.
- This study was limited to the use of the MLQ self-rating version. It is recommended to add the MLQ rater form for testing community college staff to provide a more robust understanding of perceptual and applied behavioral aspects of transformational leadership theory in a non-western context.
- The researcher assumed that the job profile of community college CEOs in India was comparable to that of their American counterparts. The point of departure for most leadership research is an underlying assumption that there are universally acceptable leadership behaviors and common values irrespective of the research context (Dickson et al., 2012; Dickson et al., 2003). Hofstede (2007) and Pellegrini et al. (2010) added an insightful

caveat that most researched theories are based on western assumptions.

Unearthing assumptions throughout the research process is recommended.

- The results of this study suggest another compelling area for further research. The literature describes Indian culture as highly paternalistic whereby the bonds that unite families and workers alike are worth protecting under the guidance of a father-type figure (Pellegrini et al., 2010). The prevalence of paternalism in Indian organizations is understudied in the literature, yet preliminary results indicate that paternalistic behaviors are evident (Pellegrini et al., 2010). Moreover, Pellegrini et al. (2010) propound, “through its emphasis on power differentials, paternalistic relations may create a disadvantage for subordinates” (p.392). How do female leaders function in Indian community colleges? The results of this study suggest that females may lead community colleges differently from their male counterparts and produce positive outcomes. The clustering of MLQ results for females linking transformational leadership behaviors and related subscales with the job placement rate in the current study warrants further investigation, including qualitative research to explore gendered leadership behaviors (Wilson & Cox-Brand, 2012). Arnold and Loughlin (2013) posit that research on the MLQ subscales represents the future of transformational research.
- The researcher confronted an unexpected level of suspicion from potential study participants. Introductory emails from ICRDCE stated that the researcher was an American. The perceptions of Americans in India might have contributed to the low response rate. Chacko’s (2014) discourse is

instructive, highlighting fundamental philosophical differences between Indians and Americans that are rooted historically and could alter perceptions of American researchers in India, as well as skew their understanding of research results from an Indian context. She wrote: American exceptionalism entails the notion that American ideals and institutions are universal and that the United States has an obligation to exercise global leadership, India's civilizational exceptionalism gives rise to the understanding of India as a responsible state with a non-coercive, prudent, exemplar-style approach to moral leadership that seeks a better path to modernity. (p. 343)

The subtle implications of ethnocentrism and competitiveness between the U.S. and India are noteworthy. Additionally, Hofstede (2007) cautioned that leadership is not universal, rather deeply embedded within a cultural context. Thus, collaborating with Indian researchers is advisable, in part, to reduce biases and to add to a more nuanced, culturally relevant interpretation of study results.

Summary

Conducting research on community college leaders in India is a worthwhile endeavor. India is the world's largest democracy. Promoting and protecting human dignity, enshrined in India's constitution, is an implicit ideal inherent in the American community college VET model. The global movement of human capital in an increasingly globalized economy underscores the imperative need for community colleges and their comparable counterparts worldwide to consistently achieve quality, relevant, and increasingly visionary vocational educational and training employment outcomes of graduates. The results from examining age and gender differences in the transformational leadership behaviors of community college CEOs in India, and the

job placement rate of community college VET graduates raise questions, provide insights, and contribute to understanding leadership behaviors in a limited research setting. The findings may be useful to policy makers, community college practitioners, and researchers and suggest that the MLQ is a worthwhile tool for further inquiry. The researcher's results for women CEOs are particularly noteworthy, suggesting that the MLQ's transformational leadership subscales could be used as a framework for professional development activities and self-assessment irrespective of age. Conversely, the predilection for emerging community college leaders to practice passive-avoidant behaviors augers for (a) further research, and (b) leadership training interventions that nurture transformational behaviors. Coupled with the researcher's results, the burgeoning youth population in India provides compelling evidence for proactively preparing the next generation of community college leaders.

In India as well as the United States, VET outcomes not only promote educational, social, and employment mobility, but potentially reduce poverty and concomitant human development barriers and social ills. Exploring leadership behaviors of community colleges CEOs in India could have a positive impact on ensuring the viability of community colleges in India, their expansion, and the export value of efficacious VET practices and outcomes. Consequently, the rich learning from global community college leadership research extends beyond national boundaries.

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Appendices

A: Sample Items the Multifactor

Leadership Questionnaire (MLQ) Form 5X Short

(PROPRIETARY: SAMPLE ONLY)

These questions provide example of the items that are used to evaluate leadership style. The MLQ is provided in both Self and Rater forms. The Self form measures self- perception of leadership behaviors. The Rater form is used to measure leadership. By thinking about the leadership styles as exemplified below, you can get a sense of your own belief about your leadership.

Key:	0 = Not at all	2 = Once in a while	3 = Fairly often	4 = Frequently, if not always
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Transformational Leadership Styles

Idealized Influence (Attributes)	I go beyond self- interest for the good of the group.	0	1	2	3	4
Idealized Influence (Behaviors)	I consider the moral and ethical consequences of decisions.	0	1	2	3	4
Inspirational Motivation	I talk optimistically about the future.	0	1	2	3	4
Intellectual Stimulation	I reexamine critical assumptions to question whether they are appropriate	0	1	2	3	4
Individualized Consideration	I help others to develop their strengths.	0	1	2	3	4

Transactional Leadership Styles

Contingent Reward	I make clear what one can expect to receive when performance goals are achieved.	0	1	2	3	4
Management by Exception: Active	I keep track of all mistakes	0	1	2	3	4

Passive/Avoidant Leadership Styles

Management by Exception: Passive	I wait for things to go wrong before taking action.	0	1	2	3	4
Laissez- Faire	I avoid making decisions.	0	1	2	3	4

B: Leadership Behaviors of Community College

Chief Executive Officers in India

Section 1

DISSERTATION STUDY BACKGROUND SURVEY FOR COMMUNITY COLLEGE CHIEF EXECUTIVE OFFICERS

Directions: All responses will be *STRICTLY CONFIDENTIAL* and used *ONLY* for the current study. Please mark the item that best applies to you. There is no right or wrong answer. Please provide a response to each question. Only completed surveys can be used in the study. One completed survey is requested from each community college chief executive officer; no duplicates please.

Definitions:

1. **Chief Executive Officer:** senior-most administrative cum executive position at the community college.
2. **Job Placement Rate:** (a) is the percentage (%) of employed community college vocational education and training graduates/pass outs completing programs during the 2016-17 academic session; (b) employed within 6 months of program completion; and (c) employed for a minimum of 3 months.

A. INSTITUTIONAL CHARACTERISTICS (applies to your current community college)

1 Total number of students currently enrolled at your community college:*

2 Total number of faculty/instructors/teachers:*

3 Total number of staff:*

B. PERSONAL DEMOGRAPHIC INFORMATION (please mark the item that applies to you)

1 Gender: * Male Female Other

2 Age in years: * 30 and under 31 - 39 40 - 49 50 - 59 60 and above

3 Highest educational degree: Less than a Bachelor's Degree Bachelor's Degree Master's Degree Doctorate Degree Other*

- If you selected **Other**, please specify

4 Number of years in a Chief Executive Officer position at any higher education institution:*

5 Number of years in a Chief Executive Officer position at a community college:*

C. COMMUNITY COLLEGE GRADUATE/PASS OUT STUDENT JOB PLACEMENT RATE (indicate percentage number from 0-100)

1 Academic year 2016-17:*