

Leadership core competencies for higher education facilities managers

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ABSTRACT

The higher education facilities manager has a broad spectrum of leadership responsibilities for maintaining the institutional campus, which includes the management of buildings and grounds maintenance as well as people and customer service management. Leadership core competencies for the higher education facilities manager can be just as varied as the job duties. Therefore, a literature review was conducted to determine the leadership core competencies for higher education facilities managers. A data analysis using a two-stage qualitative thematic coding of the available literature contributed to the development of eight leadership master core competencies, which are: Physical Asset Operational Knowledge, Organizational Effectiveness, Strategy/Vision Leadership, Human Resources Administration, Relationship Cultivation, Communicative Expertise, Governance Acumen and Decision Making/Conflict Resolution. Higher education facilities entities can utilize the set of eight competencies as parameters for hiring managers into the profession, for employee evaluation and development initiatives and for internal leadership succession planning.

Keywords: leadership; core competencies; higher education; facilities manager; facilities management

Introduction

The higher education (HE) facilities manager is an integral part of the daily operations of an institution, managing multiple physical assets as well as staff, building occupants, students, and campus visitors. The purpose of the facilities maintenance staff is to not only maintain the building structure but support the needs of the organization by contributing to its productivity, profitability, service and quality product (Amaratunga et al., 2000). There may be common core competencies for these managers that play a role in their approach to the task at hand. The discussion of the literature herein investigates what has been written about core competencies for higher education facilities managers.

Method

A literature review was conducted using the search terms: leadership core competencies for facilities managers, higher education facilities core competencies, university facilities management, higher education facilities management, higher education facilities manager, facilities manager core competencies, facilities management core

competencies, core competencies for facilities management, facilities management leadership. The findings are discussed herein.

Discussion

Core competence for facilities managers is the fundamental mode of knowing the business in which the manager operates and being the owner's representative in best practices for asset value management. The concept of core competencies is best understood by looking at several definitions: Merriam-Webster defines competency as "possession of sufficient knowledge or skill" (2019, para. 1) and skillset as "a collection of skills and abilities that can be applied to a professional or creative endeavor" (2020, para. 1). Competencies can be identified for individuals, as part of defining job performance, as well as identifying organizational performance.

The Facilities Manager

The responsibilities of the facilities manager require having more than one specific functional concentration serving the main purpose of the governing entity. For example, an accountant works with finances, money and

spreadsheets, a cardiologist concentrates on everything to do with heart wellness, and an auto mechanic fixes a motor vehicle. The difference between these types of job functions and the facilities manager is that the facilities manager is literally, as Tay and Ooi (2001) title their article, “a jack of all trades”. The facilities manager employs a “multi-faceted approach” to facility management, using space, environmental, and support services management, “people management skills, financial management skills, and technical skills,” workplace and team management, while focusing on “strategic workplace planning and organizing issues” (Tay & Ooi, 2001, p. 360). Facilities core competencies for Tay and Ooi (2001) are primarily behavioral skills with some technical skills.

A framework for core competencies in facilities management was introduced by Clark and Hinxman (1999) as a summary of specific literature with the suggestion for education programs for facilities managers. According to Clark and Hinxman (1999), core competencies for facilities manager education programs are: environmental issues, insights into building design, relevant legislation, project management, management of FM [facilities management] processes, property management, stress management, coaching, managing conflict, time management, information technology, negotiations, managing information systems, finance/budgeting, organizational strategy, organizational behavior (p. 251). The identified competencies for an education program can serve as an example of workplace priorities for facilities management professionals.

One of the many job functions of a facilities manager is to conduct small maintenance projects, either to replace flooring or to replace an HVAC rooftop unit. Termed “turnaround maintenance” (TAM) projects, the coordination of these projects requires skills common to project management, which are: leadership, conflict resolution, planning, organizational, negotiation, forecasting, motivation, management support, resource allocation, communication, decision-making, health/safety, computer literacy, technical, control reporting, supervision of staff, budgeting, and management skills in time, contracts, quality, risk, human resources, cost control, and building occupancy (Obiajunwa, 2013). Project management is a small subset of the broad functions of the facilities manager with behavioral skills being common to the management aspect. Knowledge of the required skills for TAM project management provides the organization with the ability to conduct work successfully, and to match employee skills set with job function (Obiajunwa, 2013). The list provided by Obiajunwa (2013) illustrates the vast skillset the maintenance manager is challenged to possess.

International Facility Manager

The International Facility Management Association (IFMA) is the organization recognized globally for being the international facilities industry standard. IFMA (2019) states its 11 core competencies for facilities management on its website, which are: communication, emergency pre-

paredness and business constraints, environmental stewardship and sustainability, finance and business, human factors, leadership and strategy, operations and maintenance, project management and technology, quality, real estate and property management and technology (IFMA, 2019). IFMA (2019) identifies core competencies for the global facilities manager because the profession is defined as multidisciplinary to ensure the built environment is appropriately integrating people, place, process and technology.

The British International Facilities Management (BIFM) group is now called the Institute of Workplace and Facilities Management (IWFM) group, which intends to provide both workplace and professional guidance for the facilities management profession. IWFM (2019) provides a “global competence model” for the facilities management profession with standards that are intended “to benchmark skills, knowledge and competence for those working at all levels in the facilities management profession” (para. 2). The IWFM (2018) competencies are comprised of ten functional areas, with each having a stated group of subsidiary skill sets, which are: 1.) The role of workplace and facilities management- sector knowledge, organizational behavior, information and knowledge management; 2.) Strategy and policy development- strategy, organizational performance, corporate social responsibility, workplace/facilities management policy; 3.) Leadership and management- project management, people management, culture and values, a healthy and productive workplace, change management; 4.) Business continuity and compliance- risk management, compliance; 5.) Business support services management- service innovation, managing service delivery; 6.) Property Portfolio Management- building maintenance, property and asset management, space management, managing accessibility and inclusion, building information modelling; 7.) Quality management and customer service- customer service, stakeholder relationships, quality management; 8.) Finance and technology-financial management, technology; 9.) Procurement and contract- procurement, contract management; 10.) Sustainability- energy management, environmental management.

The IWFM competencies are a combination of technical skills and behavioral skills that encompass the multitude of areas of responsibilities for the facilities manager. Further, the IWFM showcases a development of the manager from entry level to senior leadership, focusing on behavioral competencies that develop the facilities professional throughout all stages of the career.

The Hong Kong Institute of Facilities Management (HKIFM) promotes facilities management as a process and a discipline, whereby the facility manager is held to a high standard of knowledge, integral to organizational strategic decision making. The HKIFM (2010) identifies 11 areas of competencies for the facility manager, listed as follows: law on local real estate, real estate portfolio management, space planning and design management, human resources management, health safety and physical security, logistic

management, project and contract management, environmental management, financial management, maintenance and operations, and IT management. The HKIFM competencies describe the core functions of a facilities manager in the profession.

Higher Education Facilities Management

The job purpose of a facility manager in higher education is to support the mission of the institutional employer, which may require a broad spectrum of responsibilities and competencies. Awang et al. (2013) conducted a study of what competencies were thought to be required for facilities managers of Malaysian Polytechnics (universities). The study found eight competencies ranked in order of importance, which are: managing people, managing resources, operations and maintenance, leadership and management, managing the working environment, understanding business organization, managing premises and managing services (Awang et al., 2013, p. 14). Several years later continuing their research, Awang and Mohammad (2015) conducted a study of required core competencies for facility managers in a Malaysia polytechnic (university) using the Facilities Management Competencies Questionnaire (FMCQ). The FMCQ was based on a summation of competency commonalities from literature and professional organizations, which focus on the following five management competencies: leadership in organization and human resources, services management, operations and maintenance, working environment and resource, and law management (Awang & Mohammad, 2015, p. 96). Awang and Mohammad (2015) used the five management competencies as headings for a detailed description of job duties that were also found in their research. Using a partial least squares analysis of the final data, the analysis results found the FMCQ to be a valid and reliable method for determining required competencies for a facility manager at a university (Awang & Mohammad, 2015).

Facilities managers in higher education settings would have first-hand knowledge of required competencies because they are living the job on a daily basis. Raavi (2015) conducted a study for his dissertation that focused on input from higher education facilities personnel, which found seven primary competencies with subcategories of required skills under the main competency headings and ranked them in order of importance. Raavi (2015) competencies are: 1.) Leadership and Innovation- decision making, management of resources, strategy development, business improvement, change management, knowledge information management using technology (p. 69); 2.) Risk Management- emergency preparedness, risk assessment, mitigation and control, disaster recovery, training programs, evacuation procedures (p. 69); 3.) Stakeholder Relationships- communication skills, managing complaints, dispute resolution, managing purchasing and procurement processes and developing a supplier network (p. 69); 4.) Operational Activities- people management, building operations costs management, building and

grounds maintenance, energy management, building operating costs, space management, water, fire, support services management, knowledge of US labor law, time and employee work schedules, construction and renovation and utilities services (p. 70); 5.) Business Systems and Productivity- financial, project and quality management, accreditation knowledge (p. 70); 6.) Strategic Activities- energy efficiency, policymaking, contracts negotiations, strategy audit (p. 70); 7.) Industry Knowledge- building services, asset management, legislative and zoning requirements, real estate operations, property markets (p. 71). Overall, the competencies determined by Raavi (2015) found behavioral attributes to be more important than a technical skillset in the facilities management field.

The Association of College Unions International

The Association of College Unions International (ACUI) is a non-profit educational organization supporting the development of community by providing education and advocacy services to college union and student activities professionals from around the world (ACUI, 2019). The ACUI defines facilities management as “the ability to successfully maintain an attractive, safe, fully operable built environment” (ACUI, 2019). The ACUI lists its version of core competencies associated with facilities management on its website as being four categories: General Administration and Management, Daily Facilities Management and Assessment, Environmental and Energy/Utilities Management, Building Design and Construction (ACUI, 2019). ACUI provides core competencies for managers as having “the ability to coordinate, oversee, administer and evaluate the daily operations of our facilities, programs, services and activities” (para. 1, 2). The ACUI (2019) recognizes facilities management as necessary for maintaining the college union physical assets, thereby having customer service competencies, administrative savvy, knowledge of relevant laws assessment, policy development and contracting and project management.

The ACUI defines leadership as being “the ability to develop and communicate a vision so that others commit to fulfilling the mission and the goals of the organization” (2019). The core competencies associated with leadership are: self-knowledge, role modeling, integrity, political adeptness, decision-making and conflict resolution, group facilitation, motivation, empowerment, problem solving, change, vision and planning, collaboration and partnerships” (ACUI, 2019). Although the ACUI leadership competencies are more behavioral in nature and are intended for leading unions and activities, they can be attributed to a facilities management professional working in a college environment managing the physical structure of the union or other student gathering spaces.

APPA

Educational Facilities Management groups can belong to a member group called Leadership in Educational Facilities (APPA), which has been in existence for 100 years, centralizes information sharing about the profession. All

types of educational facilities groups participate in APPA, such as K-12, higher education and specialty education sectors. APPA's purpose is to leave an impact in educational facilities by increasing the performance of facilities professionals, helping institutions become better learning environments, and elevating the value of educational facilities (APPA, 2019a). APPA supports the facility professional by providing information, research, and training of competencies in four core areas, which are: (a) General Administration and Management, (b) Operations and Maintenance, (c) Energy, Utilities and Environmental Stewardship, and (d) Planning, Design and Construction (APPA, 2019a). The four core areas cover all that may be involved in educational facilities management responsibilities. APPA competency areas further serve as the basis for its management and leadership educational initiatives.

APPA focuses on leadership in educational facilities through its leadership training at its Leadership Academy, which provides skills according to four levels of advancement in perspectives on individual leadership (APPA, 2019b). The four levels with attributed skills are: (a) Individual effectiveness skills- effective leadership, responsibility, accountability, vision, mission, credibility, integrity; (b) Interpersonal effectiveness skills- credibility, relationship management, building trust, individual style awareness; (c) Managerial effectiveness skills- difficult conversations, affirmation; (d) Organizational effectiveness skills- stakeholder strategy, organizational effectiveness, team management, systems strategy (APPA, 2019b). Within the APPA leadership skills, there is a focus on managerial skills as well, indicating a cross-functional connection between management and leadership.

Management and Leadership Connection

The connection between managers and leaders is not always an obvious one. According to Uebbing and Ford (2011), there is no clear separation between management and leadership, rather, "management is a prerequisite for leadership" (p. 15). Leaders conduct their daily activities by weaving between managing and leading staff. Leaders approach a given situation using four viewpoints; structural, political, symbolic and human resources (Uebbing & Ford, 2011). These common perspectives are used by leaders to make decisions. Further, there are three competencies that are essential to school leadership, which are also challenges in governance for leaders; time, communication, and organization (Uebbing & Ford, 2011). The skills that leaders in educational settings find necessary for challenging issues are not technical per se, but are the behavioral skills required for navigating those challenges in their everyday role.

The integration of management and leadership qualities may lead one to think that these two roles are indeed one in the same, with an automatic switching between the two roles. Popovici (2012) however does not believe that leaders and managers are one in the same, the difference being how each motivates people, with persuasion and influence being a strong attribute for leaders. Further, Popovici (2012)

believes that authentic leaders possess specific characteristics, which are "vision, integrity, competence, responsibility, trustworthiness, empathy and enthusiasm" (p. 133). Whereas, a manager has the essential features of structuring, creativity, intuition, commitment, knowledge, flexibility, humanity, discipline, relaxation, and broad details (Popovici, 2012). These competencies are different, revealing that some thoughts on leadership and management reflect a separation of tasks viewpoint. However, research has shown there is no firm line drawn between leaders and managers (Bass, 1990, as cited by Kotterman, 2006). Sometimes the roles intertwine, as Bass (1990) writes "sometimes leaders manage and sometimes managers lead" (as cited by Kotterman 2006, p. 15). Although there are characteristics of each type of role, the roles can overlap.

Kotterman (2006) states there are four processes common for both leaders and managers, but the difference is in application of the tasks. The four processes identified by Kotterman (2006) for both leaders and managers are vision establishment, human development, vision execution, and vision outcomes. Kotterman (2006) further details a description of tasks as they apply to each of the four processes for leaders and managers; the separation of tasks for leaders is (p. 15): a.) Vision Establishment sees the direction and develops vision, develops strategic plans, displays passionate attitude; b.) Human development and Networking aligns organization, communicates the vision, mission and direction, influences creation of coalitions, teams, partnerships, displays driven, high emotion, increases choices; c.) Vision Execution motivates and inspires, energizes employees to overcome barriers to change, satisfies basic human needs, takes high-risk approach to problem solving; d.) Vision Outcome promotes useful and dramatic changes, i.e. new products or processes to improving labor relations.

Leaders and managers are considered as having different roles but are actually more entwined than originally considered. Alexander (2000) states that facilities leaders create the vision and future strategy, whereas facilities managers will have not only technical skills, but "business, social and personal skills" as well, making them a "hybrid manager" (p. 10). Further, the hybrid manager requires communication as a key skill, is a change agent, holds business acumen for organizational effectiveness, exhibits accountability service management, holds purchasing and contracting skills, and knows team management (Alexander, 2000). The facilities manager is varied in competencies, being a hybrid, to better align with the corporate landscape that changes based on needs and current mission of the governing organization.

The definitions of leadership and management may further assist in understanding the two terms. Covey (2004) defines leadership as "communicating to people their worth and potential so clearly that they come to see it in themselves" (p. 98). Popovici (2012) defines a leader as someone people follow of their own volition, because "his vision unites people behind him," "whereas a manager must be obeyed" (p. 138). The literature illustrates there

are competencies which are specific to both management and leadership within an organization, some of which may also overlap; however, some are tasks that are performed under master themes for each role.

Summary

The literature shows that persons in managerial positions can exhibit leadership competencies. The broad-spectrum responsibilities and core competencies for facilities managers encompass both technical expertise and behavioral skills as pertinent to the nature of the job purpose. However, most of the competencies listed are more behavioral in nature, such as communication, which is cited by several authors, groups and organizations, including Alexander (2000), IFMA (2019), and Obiajunwa (2013). Further, communication is cited as a competency itself for leadership by Kotterman (2006). Leadership as a core competency for several functions involving facilities management appears on several lists, including IFMA (2019) and Obiajunwa (2013). Leadership is cited by several authors to be a competency for higher education facility managers, such as Awang and Mohammad (2015) and Raavi (2015). Leadership as a career development focus is cited by several organizations such as APPA (2019b) Leadership Academy and IWFM (2018). Therefore, leadership itself can be viewed as both the competency itself as well as the actionable item for demonstrating the skillset that comprises leadership.

Data Analysis

There were 273 competency terms listed from the discussion herein. Using qualitative analysis, line by line coding was performed grouping similar and synonym terms into 29 categories, which are: human resources, strategy/vision, structure infrastructure property, relationship, risk and quality, negotiations, organizational effectiveness, team, environmental, finance, operations and maintenance, change, interpersonal skills, communication, sector knowledge, health safety security, business, information technology, decision-making, integrity, leadership, project management, law/legislation, time management, conflict resolution, technical, control, stress and accreditation. Terms were grouped using a *like theme* concept, for example, property management and space management were placed under structure and infrastructure, forecasting was placed under strategy/vision, mitigation and control was placed under risk and quality and group facilitation under team (reference Table 1).

Then, these 29 categories were again grouped using thematic coding, forming a master core competency list of eight competencies with sub-competencies and listed in order of cited most herein, which are (reference Table 2): physical asset operational knowledge (53 citations), organizational effectiveness (52 citations), strategy/vision leadership (40 citations), human resources administration (39 citations), communicative expertise (30 citations), relationship cultivation (29 citations), governance acumen (18

citations) and decision making/conflict resolution (12 citations). The thought process behind the grouping was that actions or processes that interact with each other should be placed together. Health safety and security having the action skills of emergency preparedness was placed as a sub-competency to Physical Asset Operational Knowledge because of the life safety systems in structures. The sub-competencies of finance, business and sector knowledge under organizational skills because these have causes and effects considerations on the facilities entity as it operates within the higher education system. Leadership was viewed as being integral to establishing a strategy and having the vision to implement change as needed to accomplish the mission, therefore the master competency title of Strategy/Vision Leadership. Leading a team and engaging staff in the in the mission as well as managing the stress for oneself and the team is integral to Human Resources Administration. Contracts are essentially negotiations on paper and procurement of resources involves forming relationships for process support, both being sub-competencies to Relationship Cultivation. Interpersonal skills are a form of communicating with staff and stakeholders, with integrity being keeping your word, all being able to have the master competency of Communicative Expertise. Having the ability to manage risk and quality with compliance regulations and laws as they apply to the organizational functions is having Governance Acumen. Time management as a sub-competency to decision-making because timeliness of solving issues can either prevent or dissolve further complications from indecision.

Value and Application

The master list of eight leadership core competencies developed through data analysis herein provides a synthesis of 278 cited competencies from 18 sources, including research publications and professional facilities member organizations. The final master list of eight competencies derived from multiple sources using qualitative analysis provides higher education facilities professionals one source for reference, thereby offering a solution to their own multiple search queries that would result in extensive time for analysis and terminology comparison. The master list provides the higher education facilities profession an established resource for leadership competencies that can be used in several management aspects: a standardized skillset for hiring managers into the profession; guidance for the creation of development programs for managers lacking skills or seeking career advancement; and for present higher education facilities leaders to set parameters for future leadership succession planning.

Limitations

For this literature review, only facilities and higher education facilities leadership competencies were reviewed. The topics of healthcare, corporate, industrial, hospitality

TABLE 1.—Literature competency terms thematic grouping samples (redundant terms removed).

Human Resources: training programs, humanity, time and employee work schedules, knowledge of US labor law, people management skills, supervision of staff, human resources management, coaching, healthy and productive workplace, leadership in organization, managing the working environment, empathy, satisfies human needs, human development supports organization

Strategy/Vision: strategic activities, strategy audit, future strategy, culture and values, develops strategic plans, vision establishment, forecasting, strategy and policy development, vision and planning, organizational strategy, leadership and strategy, mission, vision unites people, stakeholder and systems strategy, vision execution, vision outcomes, vision knowledge

Structure Infrastructure Property: space management, building services, asset management, real estate operations, property markets, construction and renovation, space planning and design, real estate/property management, accessibility and inclusion, real estate portfolio management, structural, building/ grounds maintenance, water, fire, support services management, utilities services, building occupancy, managing premises, building design

Relationship: relationship management, managing complaints, stakeholder relationships, service innovation, managing service delivery, quality management, customer service, collaboration and partnerships, influences formation of partnerships, teams, create supplier network, resource allocation, managing resources, political adeptness, building trust, symbolic, managing purchasing processes, business backing services, procurement

Risk and Quality: risk assessment, risk management, quality management, business continuity and compliance, policymaking, quality, compliance

Negotiations: contracts negotiations, negotiations, contract management; procurement and contract, holds purchasing and contracting skills

Organizational effectiveness: organizational, organizational effectiveness skills, workplace management, strategic workplace planning, organizing issues, organizational behavior, organizational performance, comprehend business organization, coordination abilities, oversee, broad details, human factors, corporate community responsibility

Team: knows team management, group facilitation, empowerment, motivates people, persuasion and influence, role modeling, managerial effectiveness skills, difficult conversations, affirmation, leadership motivation, inspiration

Environmental: environmental stewardship and sustainability, environmental issues, sustainability, energy, utilities and environmental stewardship, energy efficiency, energy management, environmental management

Finance: financial, building operations costs management, building operating costs, financial management skills, finance/budgeting, cost control, finance and business, finance and technology, financial management

Operations and Maintenance: support services management, operations and maintenance, operational activities, logistic management, services management

Change: change management, is a change agent, change, energizes employees to overcome barriers to change, structuring, creativity, flexibility, increases choices, encourages useful changes

Interpersonal Skills: social and personal skills, self-knowledge, individual effectiveness skills, interpersonal effectiveness skills, individual style awareness, passionate attitude, shows driven, high emotion, enthusiasm, intuition, commitment, discipline

Communication: communication skills, communicates the vision, mission and direction, communicating worth and potential to staff, communication is key, communicate vision to encourage commitment

Sector knowledge: industry knowledge, the role of workplace and facilities management, sector knowledge, management of FM processes, evaluate the daily operations of facilities, programs, services and activities, workplace/facilities management policy; information/ knowledge management

Health Safety Security: health/safety, emergency preparedness and business constraints, health safety and physical security, emergency preparedness, disaster recovery, evacuation procedures

Business: business systems and productivity, holds business acumen for organizational effectiveness, business, general administration, business improvement

Information Technology: knowledge information management using technology, information technology, managing information systems, technology, IT management, computer literacy, technology, building information modelling

Decision-making: make decisions, problem solving, high-risk problem solving, decision-making and conflict resolution

Integrity: integrity, credibility, accountability, displays responsible service, responsibility

Leadership: leadership and management, leadership and innovation, effective leadership

Project Management: project management and technology

Law/Legislation: relevant legislation, law management, local real estate laws, zoning requirements

Time Management: time management, management skills in time, time

Conflict Resolution: dispute resolution, managing conflict, conflict resolution

Technical: technical skills, technical, competence

Control: control reporting, mitigation, controls

Stress: stress management, relaxation

Accreditation: accreditation knowledge

NOTE: Table 1 is a sample of the analysis process and is not a full list of competency terms from the literature.

facilities and many others all specific in nature were not considered. Some healthcare facilities are governed by a higher education entity, or a University, however being that healthcare is in itself very specific in nature, it was not considered for this review.

Conclusion

From the literature analysis, the eight leadership core competencies with actionable descriptions based on the identified sub-competencies for the higher education

TABLE 2.—Master competency list with sub-competencies and total number of citations.

Master Competency Title	Sub-competencies	Quantity of Citations
Physical Asset Operational Knowledge	Structure Infrastructure Property	24
	Environment/Sustainability	10
	Operations and Maintenance	9
	Health Safety Security	6
	Technical skills	4
	Total	53
Organizational Effectiveness	Organizational Effectiveness	17
	Finance	11
	Business	5
	Sector Knowledge	7
	Information Technology	8
	Project Management	4
	Total	52
Strategy/Vision Leadership	Strategy/Vision	25
	Change Management	10
	Leadership	5
	Total	40
Human Resources Administration	Human Resources	22
	Team	15
	Stress Management	2
	Total	39
Relationship Cultivation	Relationship Management	22
	Negotiations/Contracts	8
	Total	30
Communicative Expertise	Communication	9
	Integrity	9
	Interpersonal Skills	11
	Total	29
Governance Acumen	Law/ Legislation	4
	Accreditation	1
	Risk and Quality	11
	Controls	2
	Total	18
Decision-Making/Conflict Resolution	Decision-Making	6
	Conflict Resolution	3
	Time Management	3
	Total	12
	Grand Total skills:	273

facilities manager was developed (reference Table 3). The *like theme* coding technique illustrates that there are many terms that are associated with the same skillset all related to the overall leadership skills. The research shows that

physical asset operational knowledge is a major concern for leadership in facilities, with having the ability to navigate the organizational structure being a close second priority. The research herein provides the next grouping of

TABLE 3.—Master core competency list with descriptions.

Master Competency Title	Description
Physical Asset Operational Knowledge	Understanding of necessary technical skills for operations, maintenance, health, safety and security for structure/infrastructure/property with considerations of environmental/sustainability effects.
Organizational Effectiveness	Leading organizational efficacy through finance, business, information technology, and project management applications as applicable to all facets of facilities management.
Strategy/Vision Leadership	Leading the corporate vision and establishing the strategy for mission accomplishment while utilizing change management as necessary.
Human Resources Administration	Administration of human resources best practices for forming teams and engaging dedication to mission with strategies for stress mitigation.
Relationship Cultivation	Cultivating and maintaining relationships with supplier and resource networks to establish effective negotiations and contracts.
Communicative Expertise	Using interpersonal skills to maintain open lines of communication while employing integrity and accountability with every action.
Governance Acumen	Knowledge of applicable laws/legislation while establishing controls for risk mitigation and quality improvement for supporting institutional accreditation.
Decision-Making/Conflict Resolution	Employing timely decisions for problem-solving and conflict resolution.

important skills being related to having vision to lead people with strategy implementation, team facilitation, and cultivating relationships with a communicative style that employs staff for managing complex facilities with multiple and varied tasks for maintaining physical assets. Having the framework of eight leadership core competencies for higher education facilities managers provides the facilities entity a resource for hiring and developing staff with leadership competencies that are applicable to the profession.

REFERENCES

- Alexander, K. (2000), "Facilities Management: A Strategic Framework", *Facilities Management Theory and Practice*. Taylor and Francis, New York, NY.
- Amaratunga, D., Baldry, D., & Sarshar, M. (2000), "Assessment of Facilities Management Performance- What Next?", *Facilities*, vol. 18 no. 1/2, pp. 66–75. doi: 10.1108/02632770010312187.
- APPA (2019a), *About Us*, accessed 13 May 2019, retrieved from APPA: <http://www.appa.org/appas-purpose>.
- APPA (2019b), *Leadership Academy*, accessed 13 May 2019, retrieved from APPA: <http://www.appa.org/leadership-academy>.
- ACUI (2019), *About*, accessed 13 May 2019, retrieved from ACUI: <https://www.acui.org/resources/core-competencies>
- Awang, M., Mohammed, AHB., Sapri, M., Rahman, MSA. (2013), "Transformation of Malaysian Polytechnics Inevitabilities Facility Management," *Journal of Global Management*, vol. 5 no. 1, pp. 1–20.
- Awang, M. & Mohammad, A. H. (2015), "Reliability and validity of facilities management competencies instrument using partial least squares", *International Journal of Social Science and Humanity*, vol. 5 no. 1, pp. 95–99. doi: 10.7763/IJSSH.2015.V5.430.
- Clark, E., & Hinxman, L. (1999), "Developing A Framework of Competencies for Facilities Management", *Facilities*, vol. 17 no. 7/8, pp. 246–252.
- Covey, S. R. (2004), *The 8th Habit: From Effectiveness to Greatness*. Free Press, New York.
- HKIFM (2010), "What is FM?", *About*, dated 1 December 2010, accessed 13 May 2019, http://www.hkifm.org.hk/public_html/about.html
- IFMA (2019), *About IFMA*, accessed 13 May 2019, retrieved from IFMA: <http://www.ifma.org/about/about-ifma>.
- IWFM (2018), "Professional Standards Handbook," *IWFM The Institute of Workplace and Facilities Management*, accessed 13 May 2019, retrieved from IFMA: https://www.iwfm.org.uk/sites/default/files/Professional%20Standards%20-%20Digital%20Single_1.pdf.
- IWFM (2019), "Professional Standards," *About*, accessed 13 May, 2019, retrieved from IWFM: <https://www.iwfm.org.uk/professional-standards>.
- Kotterman, J. (2006), "Leadership versus management: what's the difference?", *The Journal for Quality and Participation*, vol. 29 no. 2, pp. 13–17. <http://search.proquest.com.ezp.lib.rochester.edu/docview/219091679?accountid=13567>.
- Merriam-Webster (2019), *competency*, viewed on 14 October 2019, retrieved from Merriam-Webster Dictionary: <http://www.merriam-webster.com/dictionary/competency>.
- Merriam-Webster (2020), *skillset*, viewed on 10 January 2020, retrieved from Merriam-Webster Dictionary: <http://www.merriam-webster.com/dictionary/skill%20set>.
- Obiajunwa, C. C. (2013), "Skills for the management of turnaround maintenance projects", *Journal of Quality in Maintenance*, vol. 19 no. 1, pp. 61–73. doi: 10.1108/13552511311304483.
- Popovici, V. (2012), "Similarities and differences between management and leadership", *Annals of the "Constantin Brancusi"*, vol. 2 no. 2, pp. 126–135.
- Raavi, D. P. (2015), "Assessment of competencies required for facilities management of educational institutions", *Open Access Theses*, Purdue University, vol. 598, https://docs.lib.purdue.edu/open_access_theses/598.
- Tay, L., & Ooi, J. T. (2001), "Facilities management: A "Jack of All Trades"?", *Facilities*, vol. 19 no. 10, pp. 357–362. <http://dx.doi.org/10.1108/EUM000000005534>.
- Uebbing, S., & Ford, M. (2011), *The life cycle of leadership: Surviving and thriving in today's schools*, Learning Forward, Oxford, OH.