



Higher education institution leadership competency model development using the KSA approach

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ABSTRACT

Higher Education Institutions (HEIs) need competent leaders to survive and thrive in today's challenging educational environment. In order to achieve this, HEIs have to develop leadership competency models that are aligned with their needs and context. A leadership competency model is essential in understanding how to develop Higher Education Institution leaders. This study proposes a list of HEIs leadership competencies and a HEI leadership competency model based on knowledge-skills-attitudes (KSA) approach. The proposed model can be used as a foundational framework that can be adapted and customized by HEIs to develop their own unique models.

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INTRODUCTION

Leadership has a profound effect on organizations. Studies have shown that there is a relationship between leadership and performance in various sectors (Ahsan, 2024; Flanigan et al., 2013; Miloloža, 2018; Rakotobe-Joel & Sabrin, 2010; Tran, 2017). This relationship between leadership and performance also exist in the higher education sector (Shukri Bakar & Mahmood, 2014). Organizations that are led by leaders with strong leadership competencies have high levels of competitiveness (Cong et al., 2021). Therefore, the development of a leadership competency model for HEIs is urgent because this model can help HEIs to compete and remain relevant in a dynamic global higher education landscape. HEIs need to create job profiles for leadership positions based on competency models that list and describe the competencies that their leaders need to have.

A competency is a combination of knowledge, skills, and attitudes that is needed to perform work (Lee & Phan, 2000). KSA framework is a competency framework that can be used in job profile development and analysis (Chang et al., 2019; Dilshan & Asanka, 2025; Putka et al., 2023). This approach divides competency into three distinct categories, which are Knowledge, Skill, and Attitude. Knowledge can be defined as facts and concept of a certain domain (Hamzah et al., 2012). It is the combination of information, experience, context, interpretation, reflection, intuition, and creativity (Syed Aktharsha, 2013). Skill is the ability and capacity that is acquired through effort that is deliberate and systematic in order to execute complex activities smoothly and adaptively (Venkateswarlu et al., 2013). It is used to manage and apply knowledge in problem solving

activities (Hamzah et al., 2012). Attitude is how skill and knowledge is implemented through individual values, concerns, preferences and biases toward goals (Hamzah et al., 2012). It is formed in the work environment (Mingzhu, 2023).

In developing Leadership competency models, there are two kinds of approaches that can be applied: Vertical concept and Horizontal concept (Ruben & Gigliotti, 2017). Vertical concept suggest that leadership competencies are unique within a specific sector. This concept focuses too narrowly on a specific sector and ignores leadership competencies from other sectors. Horizontal concept suggest that leadership competencies are generic and transcend various sectors. This concept disregards the existence of unique leadership competencies that are required only in certain sectors. In reality, competencies of a sector are different to another sector in terms of its unique competencies. However, that is not the only difference. A sector also has differences with another sector in terms of which generic leadership competencies are important to a certain sector. The list of the ten most important generic leadership competencies might vary from one sector to another (Bergstrom, 2012). Differences between sectors must be accommodated in the competency development model. Therefore, it is best to combine these two concepts in developing leadership competency models.

This study will develop a Higher Education Institution Leadership Competency Model based on KSA approach and incorporate the combined Vertical-Horizontal concept by dividing the competencies into two categories: Higher education-specific leadership competencies and generic leadership competencies. The model developed in this study can be used as a template for HEIs in developing their own unique Higher Education Institution Leadership Competency Model.

RESEARCH METHOD

This study uses the KSA approach and combined Vertical-Horizontal concept to develop a Higher Education Institution Leadership Competency Model. This study uses previous studies as a data source. The search for previous studies on Higher Education Institution Leadership Competencies is conducted through Google Scholar. Studies that contains specific competencies list of leaders in Higher Education will be selected for the study. The competencies list in the selected studies will be extracted and used in developing a KSA-based Higher Education Institution Leadership Competency model and Competencies list.

RESULTS AND DISCUSSIONS

The literatures selected as the data source for this study can be seen in Table 1. The list of competencies listed there will be used as a data source for the development of Higher Education Leadership Competency Model that uses the KSA approach.

Table 1. Previous studies on higher education institution leadership competencies list

Authors	Competencies Categories	Competencies List
Jais et al. (2021)	Personal effectiveness	Self-confidence; empathy; organizational commitment; value and ethics
	Cognition	Conceptual thinking; analytical thinking; decision-making ability; planning and organizing
	Leading	Teamwork and team leadership; leveraging diversity; change leadership
	Impact and influence	Impact and influence; organizational and environmental awareness; networking
	Achievement and action	Achievement orientation; initiative and proactive behavior; information seeker
Pham et al. (2019)	Leadership and management	Leading change, managing operations
	Administration	Formulating and processing management documents; building

		organizational culture; communicating information internally; applying information technology
	Advising and consultation	Creative problem solving; conflict management; presentation skills; negotiation skills
	Human resource management	Allocating and using human resources, evaluating performance and providing feedback; coaching and mentoring; building a work environment and motivating team members
	Self-management	Maintaining political and ethical qualities; self-training; self-direction; interpersonal skills; collaborative skills; adapting to changes; using competently a foreign language
Crosthwaite & Erwee (2015)	(This research did not organize competencies into clusters)	Figurehead (role model); interpersonal skills; negotiation/influencing skills; administration; problem solving; developing people; academic; communication skills; motivating others; innovation approach; organizing, planning and objective setting; managing resources; coordination; integrity/ethics; monitoring and control; decision making; developing and communicating a vision; time management; teamwork; stakeholder focus; liaison and networking; quality improvement and best practice; change management.
Ehrenstorfer et al. (2015)	Academic excellence	Proficiency in applying academic methods; publication of findings; being up-to-date in the related academic field; reputation; active involvement in the academic community and disposal of a network
	Professional expertise	In-depth knowledge in the related professional field
	Leadership and social skills	Ability to trust in staff members and their skills; capacity to delegate; empathy; assertiveness; ability to confront and to deal with conflicts; communication skills; decision making competencies; teamwork and trust in staff members; open mind about actively approaching people and accepting their diversity
	Personality traits	Leaders should be mature and possess stable personalities with the following characteristics: determination, assertiveness, patience and general willingness for change
	Management skills	Strategic thinking; know-how in marketing, finance, project management and external representation; organizational development; self-organization and smooth organization of study programs
	Organisational knowledge	Detailed knowledge of distinctive organisational structures and practices of academic institutions
Freeman & Kochan (2013)	Foundational knowledge	History of higher education, finance in higher education
	Knowledge acquisition of context	Understanding public image
	Complex cognitive knowledge	
	Personal attributes	
	Management	Assessment / accountability; enrollment management; fundraising; strategic planning
	Communications	Writing to diverse audience; speaking to diverse audience; interpersonal development
Potgieter & Coetzee (2010)	Planning and organizing	Strategic planning and formulation; strategy implementation; day-to-day planning in terms of prioritizing tasks and activities; environmental scanning and analysis; delegation of tasks to teams and individuals; project management
	Leadership	Leadership of overall team and individual team members; motivation of overall team and individual team members; managing change and renewal; managing interdepartmental relationships with peers within the department; managing external relationships with key external stakeholders and suppliers; customer care and customer service management (external and internal); risk identification and management; managing diversity and cross cultural issues in teams within the department
	Controlling	Monitoring and dissemination of information; performance management in terms of planning, conducting and follow-up for team and self; rewarding performance of team and team members; effective use of IT especially communication, planning and reporting systems;

		financial and commercial understanding especially in budgeting, cost control and financial reporting; planning and running meetings and effective follow-up strategies or activities; administration, reporting performance and financials, monitoring, maintaining and developing reporting systems; quality awareness and management according to quality standards and procedures
	Human resource specific aspects	Handling grievances and disputes; dealing with issues of discipline; attracting talent in terms of recruitment; interviewing and selection of new staff members; effective induction and orientation of new staff members; employment and HR policy awareness and management, according to policies: equity, disability, harassment, et cetera; occupational health and safety awareness and management according to policies
	Personal attributes	Time management; communication skills in terms of questioning and active listening, building trust, empathy and mutual understanding; business writing in terms of letters, reports, plans and project plans; emotional intelligence in terms of self-development, self-control, compassion and humanity, seeking responsibility and personal growth; creating and giving effective presentations to groups; creative problem-solving and decision-making; Negotiation and conflict resolution
Noor & Dola (2009)	(This research did not organize competencies into clusters)	Time management; communication; computer knowledge; teamwork; work scheduling; drive for results; planning and organizing; decision making; integrity/honesty; high discipline; customer-oriented; problem solving; creative thinking; analysis and data interpretation

As can be seen in Table 1, previous studies used various approach to divide competencies into several categories but none of them uses the KSA approach. Most of the previous studies divide competencies into several categories but do not specifically define which competencies are knowledge, skills, and attitudes. Most of the previous studies also did not classify which leadership competencies are Higher Education-specific and which competencies are generic competencies. Although, all the literatures are about Higher Education Institution Leadership Competencies, only literatures by Ehrenstorfer et al. (2015) and Freeman & Kochan (2013) that specifically include leadership competencies that are specific to higher education sector into the competencies list. The other literatures only include generic leadership competencies list that can be applied to all sectors.

Most of the literatures also describe the competencies with lengthy and detailed description. In practical terms, these competencies lists are difficult to replicate and implement across all HEIs because a detailed definition of a specific competency can be defined differently between different institutions. It is better to define the competencies in general terms that if needed, can be further developed in detail by institutions that want to use the competency list as a source of data and benchmark. For example, instead of defining a competency as "Strategic planning and formulation; strategy implementation; day-to-day planning in terms of prioritizing tasks and activities; environmental scanning and analysis", it is more practical to define it as "Strategy management", which is an umbrella term for all those competencies. By using an umbrella term that is generally understood, HEIs do not need to figure out which discipline of study that is related with a certain competency. Also, it is better to avoid mixing various discipline of study in the definition of a single competency. This kind of definition is obscure and will lead to confusion as to the scope of the competency. For example, mixing strategy planning and delegation skills in the definition of a single competency can cause confusion in the process of assessing the leaders' competencies.

Based on the literature review results in Table 1, this study developed a concise and clear competencies list of the competencies based on KSA approach, as can be seen in Table 2. This study analyzed the competencies listed in the Table 1 and redefine them into terms that is easily understood and came from a certain discipline of study. Similar competencies that are subset of a

certain competency will be combined into one single umbrella competency. This study excluded competencies in Table 1 that is region/country-specific, such as “using competently a foreign language”. This study also divided the competencies into Higher Education Institution-specific competencies and generic competencies. This approach can help Human resources department to develop and recruit leaders. Training needs analysis (TNA) for leadership development can be done faster and easier when the competencies list are clear and concise. Job profile development, that is used to assess to suitability of candidates, can also be done faster and easier with this approach. In Table 2, it can be seen that there are leadership competencies that are unique to the higher education sector. Although not many compared to the number of generic leadership competencies, these higher education specific competencies are crucial for the success of higher education leaders.

The competencies list in the higher education-specific section might seem to have an overlap with the generic section. For example, in the knowledge section, there are “Higher Education Quality Management” in the higher education-specific competencies and “Quality Management” in the generic competencies. However, these two competencies are quite different. “Higher Education Quality Management” focuses on achieving higher education related accreditations that represents academic quality. These accreditations can be divided into HEI-level accreditations and major / study program-level accreditations. These accreditations could be national accreditations that are mandated in the national regulations or international accreditations, such as ABET, AACSB, EQUIS, AMBA, and NAAB. On the other hand, “Quality Management” focuses on achieving quality management standards that can be applied to organizations from all sectors, such as ISO 9001.

In the skills section, there are “Leading skills that focus on leading and managing highly intellectual group of people with advanced / post-graduate degrees” in the higher education specific skills and “Leading skills” in the generic skills. HEIs are unique in terms of the level of education of the employees that need to be led and managed, especially in the academic departments where the employees are faculties who are highly educated. Higher education sector employs the most employees with doctoral degrees (McCarthy & Wienk, 2019). Highly educated employees tend to have more negative attitudes toward other employees that they see as less educated as they are (Kuppens et al., 2018). Furthermore, employees with higher level of education, especially the senior ones, are more resistant to change initiatives or projects that they do not approve of (Islam et al., 2010). Various studies have shown that faculties indeed have the tendency to resist change proposed by their leaders (Dana et al., 2021; Kane & Dahlvig, 2022; McBride, 2010). The late Warren Bennis, who was a globally renowned Leadership author and business professor at the University of Southern California, once said that managing people is like herding cats (Steele, 2010). This is particularly true when it is put in the context of leadership within the higher education sector, where the employees, especially the faculties, are typically highly educated, intelligent, and accustomed to work independently. This is why “Academic leadership skill” is distinct from generic “Leading skill” because leading a team of highly educated and highly intelligent people requires a skill that in several ways different than leading other kind of teams.

Table 2. Higher education institution leadership competencies list based on KSA approach

Category	Leadership Knowledge	Leadership Skills	Leadership Attitudes
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Higher Education-Specific	Higher education administrative processes Higher education assessment Higher education athletics and sports Higher education student enrollment management Higher education environment, systems, national regulations, and politics Higher education fundraising management Higher education history Higher education organizational structures Higher education research and publication management Higher education stakeholder management Higher education student affairs management Higher education quality management	Academic leadership skill	Maintain academic integrity
Generic	Leadership theories Strategy management Financial management and Accounting Human resource management Organizational behavior Marketing management Quality management Knowledge management Organizational development Risk management Occupational health and safety Laws and regulations that are relevant to the organization Project management Performance management Public relations management Management control system Operations management Change management Business process management Innovation management Conflict management Technology management Soft skills theories Decision-making theories Crisis management Asset management	Planning skill Organizing skill Leading skill Controlling skill Interpersonal skill, communication skill, and networking skill	Maintain professional integrity and ethics Maintain personal reputation Being a good role model Empower employees Empathetic Result-oriented Assertive Adaptive Tolerant to ambiguity Emotionally intelligent Highly committed to organization High level of discipline Lifelong learner Views mistakes as learning opportunities for future growth Inclusive Effective in managing time Exhibiting civility at all times Healthy degree of confidence Maintaining up-to-date knowledge Being a calculated risk-taker Innovation-oriented Maintaining good relations with stakeholders

In the attitude section, there are “Academic integrity” in the higher education specific section and “Maintain professional integrity” in the generic skills. Academic integrity has different focus than professional integrity. For example, Academic integrity might focus on things like not falsifying research data while professional integrity might focus on things like not accepting bribes from suppliers.

The competencies list in Table 2 shows that to become a competent leader in the higher education sector, one needs to have mastery in both categories: Higher Education Institution-specific competencies and generic competencies. This study considers the duality of academic and

administrative roles of most leaders at HEIs who are academic faculties and leaders at the same time. By dividing the competencies into HEIs-specific and generic, this study considers the differences of competencies needed for academic and administrative roles. The issue with leaders that are selected from academic faculties is that they normally have mastery in their own academic disciplines but they only have rudimentary knowledge about organization management and leadership (Gmelch & Buller, 2016). Most academic faculties without previous non-academia work experience would not have proper knowledge listed in the generic knowledge list. Therefore, academic faculties that are in the leadership talent pool need to be developed further before they enter leadership position. Leaders without Higher Education work experience that are recruited for leadership positions in the Higher Education sector normally do not have mastery over Higher Education Institution-specific leadership competencies. They also need to be developed further after they are recruited.

The job profiles of higher education leaders at all levels can be different from one institution to another institution; therefore, it is best if the competency model can accommodate those differences. For example, a leader of Higher Education Institution with limited financial resources may require a different focus of competencies than one leading a Higher Education Institution with abundant financial resources. The former might need to have strong marketing management and enrollment management knowledge while the latter might need to have strong asset management and innovation management knowledge.

Based on Robert Katz's concept of competencies, different levels of leadership positions require different prioritization of competencies (Laghari et al., 2024). Some leadership competencies might be required at all levels of leadership at HEIs, starting from Head of Department to Rector/President. But other competencies might not be required for certain positions or might have low degree of importance. For example, a Rector/President has to have an advanced knowledge on strategy management while a Head of Department might only need a basic knowledge on that subject.

There can also be differences in terms of competencies that are required in different countries. Each country has its own culture and Higher Education regulations. This model has accommodated this issue by listing "Organizational Behavior", which considers cultural differences, and "Higher education environment, systems, national regulations, and politics", which considers differences in regulations between nations, politics, and other external factors, in the competencies list.

Higher education institutions might choose to develop their future leaders by sending them to external programs and the other might choose to develop an internal leadership development program. Some higher education institutions might opt to send their future leaders, although they already have PhD degrees, to attend non-degree and degree programs that are relevant in order to build their leadership competencies, such as Mini MBA non-degree program, MBA degree program, Master in Higher Education Administration degree program, and Doctorate in Business Administration (DBA) in Higher Education Management degree program (University of Bath, 2025). Other higher education institutions might choose to develop internal leadership development programs that are integrated with on the job trainings. The decision on which choice that will be chosen normally depends on the future leader's background and organization's financial resources and training capabilities.

Figure 1 shows the KSA-based Higher Education Institution Leadership Competency Model that is developed in this study. This model is related with the competencies list in Table 2. The model conceptualizes the relationship between knowledge, skills, and attitudes. Knowledge is what is implemented through skills and attitudes shape how individuals use their skills (Hamzah et al., 2012). Although these three types of competencies are distinct, they are not totally separated from one another.

This model divided generic leadership skills into 4 categories: Planning, Organizing, Leading, and Controlling. This categorization is based on how Potgieter & Coetzee (2010) divided leadership competencies into categories that was based on the concept of management functions by Louis A. Allen. These management functions can be considered as primary skills that leaders must have. The concept behind the model is that generic leadership skills are the four skills related to management functions and complemented with interpersonal skill, communication skill, and networking skills. In conducting planning, organizing, leading, and controlling, leaders must also utilize their interpersonal, communication, and networking skills in order to be effective. These generic leadership skills must be augmented by Higher Education Institution-specific leadership skills. Leadership skills as a whole must be supported by knowledge and attitudes in order to perform well. It is unlikely for a leader to be able to plan properly without related knowledge and attitude. For example, even if a leader has good planning skills, without knowledge on strategy management and calculated risk-taking attitude, it is likely that the plans that he/she developed will contain shortcomings that might impede the success of his/her organization.



Figure 1. KSA-based Higher Education Institution Leadership Competency Model

The comprehensive and concise model will help HEIs in developing their leaders. When using this model, institutions only need to develop a plan on how to specifically develop the leadership skills of leaders and to identify the knowledge and attitudes that need to be imparted to leaders in order for them to be able to utilize their leadership skills at a high level. The competencies list and model produced in this study can be used by HEIs as foundation and template for developing their own customized competency lists that are suitable to their own organizations.

This model will also help HEIs improve their human resources development system. This model can be used in developing a leadership succession plan. By mapping the competencies required for leadership positions and the level of competencies of their current employees, HEIs can identify high potential individuals and put them in the leadership talent pool. HEIs can also plan the trainings required to prepare them to become future leaders. If internal candidates are not sufficient, HEIs can plan to recruit from outside the organization.

CONCLUSION

This study has developed a Higher Education Institution Leadership Competency Model and Competencies List that can be used by HEIs as a template to develop their own leadership competency models. This study has several limitations: it does not consider of the focus differences in leadership competencies that are required for different levels of leadership positions; it does not consider of the focus differences in leadership competencies that are required in different regions or countries. Therefore, it is advised for HEIs to customize this model to create detailed sub-competencies from each of the competencies listed in the model that are relevant to different levels of leadership and to the regional/country context. It is suggested for future research to compare the practicality of implementing of a KSA-based HEIs leadership competency model and other kind of HEIs leadership competency models.

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