

# The Future of Competencies for Academic Support Personnel in Higher Education Institutions Under State Supervision with an Emphasis on Science and Technology

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**Abstract** - This research aims to study the performance of academic support personnel in higher education institutions under state supervision with an emphasis on science and technology by using EDFR techniques. Data from a sample group of 20 experts was gathered using open-ended semi-structured interviews and a questionnaire with a 5-level estimation scale and analyzed through median and interquartile range. The results showed that the competencies of academic support personnel were grouped into 3 areas of performance as follows, each with specific components of importance: 1) core competencies, including achievement, good service, accumulation of proficiency, adherence to righteousness and teamwork; 2) performance according to duties, including analytical thinking, holistic vision, searching for information, proactiveness, accuracy, flexibility and motivation; and 3) administrative competencies, including leadership, strategic vision, strategic thinking, potential to bring about change, self-control, problem solving and decision making.

**Keywords** - Competency, Academic Support Personnel, Higher Education, Science and Technology

## I. INTRODUCTION

The advanced technological advancements of the 21<sup>st</sup> century bring with them significant changes, be they economic, social, political or environmental, that directly affect the transformative progress of organizations as well as their ability to survive, adapt and thrive. For organizations to cope with this change, they must develop highly trained personnel equipped with technological knowledge and skills as well as capable management. The responsibility for the development and production of the human resources that will comprise these organizations lies, at the tertiary level, with higher education institutions, be they private or under state supervision. Higher education institutions must adapt to current and ever changing necessities and develop processes and management that are able to meet them. In particular, advances in information technology greatly influence modern society and are an important matter for every organization or institution to consider.

## II. LITERATURE REVIEW

The most important factor impacted by these advances is human resources, a crucial segment at the core of all organizations, and

higher education institutions must foster understanding with academic, administrative and support personnel at all levels in order to alter and align their behavior with the vision and strategic plan of the organization as a whole. It is essential to motivate and empower organizations' management to achieve goals set forth by the emergent needs of Thailand 4.0, [1] allowing them respond to issues rising from a rapidly changing world and meet increasingly fierce competition. Education is a central component in transforming society to move forward as it directly affects the future of the nation. Educational institutions have been entrusted with the important main role and mission to create people who will be able to perform their duties to a standard that meets the needs of society [2]. The goal of the 2<sup>nd</sup> edition of Thailand's long-term higher education framework plan for 2022 is to raise the quality of Thai higher education to produce qualified personnel capable of adapting to work that will change and evolve throughout their lives and develop higher education to meet its full potential in sustainably fostering knowledge and innovation to increase the country's competitiveness in this era of globalization.

In accordance with modern management principles, human resources is considered to be among the most important factors which enable organizations to develop and progress further. For an organization to be able to achieve its goals, it is necessary to ensure its personnel's efficiency and to have their cooperation. Any organization failing to develop and nurture these will lack the quality human resources possessing the necessary competencies and drive to propel the organization forward and to compete with external forces effectively. Organizations must continuously develop human resources to ensure progress since, in today's global and intellectual society, "people" are as the center of growth. It is necessary to develop human resources to be the best they can be in order to achieve the highest level efficiency for the organization [3]. Human resource development is an important process, resulting in systematic behavioral changes that allow for personnel to have knowledge, skills and attitudes in various

matters, extensively leading to personnel being more progressive and able to live with and adapt to various environments. To support such change in both internal and external environments, organizational practices and processes need to be clear and consistent, and must develop systems that are suitable for both current and future operations [4].

Every organization needs quality human resources. Personnel having the appropriate characteristics and core competencies will lead the evolution of the organization in the desired direction. With Thailand stepping into the digital economy, its organizations are in the midst of rapid changes which are bringing about various new modern crises and increased competition, so said organizations must be able to gain competitive advantage. By adhering to the notion that "humans" can think in any manner, it can be surmised that human beings can be driven into schools of thought within an organization. Starting from the executives at various levels all the way down to the lowest levels of personnel, change can be brought about in organizations in various ways. However, all stakeholders must have sufficient knowledge and understanding and be ready to accept changes in order to move along or influence the direction of the organization as a whole [5]. An important factor that increases the competitiveness of an organization is performance, not only in the execution of direct tasks but also in the ability to manage and develop human capital to meet their full potential to result in active and positive organizational development. Organizations that manage human capital by developing them to have sufficient and appropriate knowledge and abilities in accordance with organizational goals, operations and practices, in conjunction with good planning for the future, are better positioned to meet their goals and maintain quality.

Changes that occur quickly cause the organization structure to be changed, with personnel rotated and transferred to positions with ever shifting duties, so management too must be more agile. But these shifts have a detrimental effect on most academic support

personnel, making their work fail to meet the objectives set forth by the organization. The cause is due to the lack of continuous development of work performance in the face of ever changing responsibilities. As can be seen from the current institutions under governance of the state, this interruption to continuity makes it impossible to work effectively and impacts especially communication and coordination skills, information technology skills and the ability to provide consistent services to faculty, students and the public. Attention must also be paid to issues of recruitment and consideration given in respect to the characteristics of new generations that make them attractive as employees, such as proficiency in emerging technologies and advanced computer skills that will benefit an organization. This would allow for older workers to retire earlier and benefit the organization in the face of salary increases for civil servants and increase employment rates.

Competencies have been a significant basis for systems of performance evaluation and therefore, should there be an evaluation of performance, then persons who lack necessary competencies and are ineffective in terms of self-development will obviously be negatively assessed and prove to be a detriment to the status of any institution [6]. As stated, academic support personnel must strengthen the development of human capital by continuously developing themselves to keep pace with current changes, to adjust their work behavior by increasing performance capability to be appropriate with their position, to be able to use information technology in their operations and to have the skills, knowledge and ability to perform all duties, responsibilities and workloads. It is also important that working in the organization be open to personnel at all levels to allow for flexibility and incentive for growth and advancement in the system and within work processes and thus pushing for greater participation within the organization, increasing the potential for effectiveness and dedication in the work and ultimately leading to success. Working trends in the digital age are issues that all stakeholders need to acknowledge, familiarize and educate themselves as

the progress of technology is changing the world rapidly and in order to thrive, personnel need to change the way they work to be in line with current changes. As a sector that holds the responsibility for molding future generations of the workforce, and therefore playing a crucial part in making that work more convenient and faster, educational institutions must develop human capital to drive organizations to success by allowing them to meet their goals and be successful as envisioned. This requires the economic and effective use of resources. Maximizing the benefits of "human capital" is an important factor in bringing success to an organization and instilling this concept and the adherence to thereof in executives, as well as changing worldviews to look upon human labor as a valuable asset to be tended to and nurtured can create tremendous benefits for the organization [7].

The researcher therefore has an interest in studying related future scenarios regarding the competencies of academic support personnel in higher education institutions under state supervision with an emphasis on science and technology in accordance with the future research principles of EDFR (Ethnographic Delphi Future Research) to collect data on the corresponding opinions of the experts, which can then be used to develop the components of said academic support personnel's competencies deemed suitable for the current era and considered to be of benefit in the future and to shape new personnel ready in all aspects and as a person with intellectual capital, appropriate social relations and high performance. Important skills for people wishing to thrive in the 21<sup>st</sup> century not only encompass knowledge and skills, but also good attitudes and proficiency with digital technology in order to maximize the benefits of communication, coordination and collaboration to meet national policies and to enable higher education institutions that focus on science and technology to become leading e-universities that keep pace with the changes happening in the world today as well as those to come.

### **III. RESEARCH OBJECTIVES**

This research aims to study the future image of competencies for academic support personnel, with an emphasis on science and technology, in higher education institutions under state supervision.

### **IV. CONCEPTUAL FRAMEWORK**

The researcher focused on core competencies for the conceptual framework of the study. These consist of the functional and administrative competencies for academic support personnel in higher education institutions under state supervision, focusing on the scientific and technological competencies of personnel from of King Mongkut's Institute of Technology Ladkrabang, King Mongkut's University of Technology North Bangkok and King Mongkut's University of Technology Thonburi. For determining the future image of competencies for the academic support personnel in higher education institutions under state supervision, the research utilized analysis of competencies regarding performance in scientific and technological management and education, related principles from the Office of the Civil Service Commission [8], and the Office of the Higher Education Commission [9]. Details pertaining to competencies based on the concepts from McClelland's from 1970 research [10] as well as his Iceberg Model from 1973 [11] and details pertaining to performance based on the concepts of Spencer and Spencer [12], Prahalad & Hamel [13] and Parry [14] were also utilized in the research.

### **V. RESEARCH TOOLS & METHODOLOGY**

This study is a future research based on EDFR (Ethnographic Delphi Future Research) [15] and using EDFR technique, with the first round being a semi-structured interview about the competencies of academic support personnel in higher education institutions under state supervision with a focus on science and technology conducted with experts with administrative knowledge and in which the method of selection is purposive.

The sample group numbered 20 persons, comprised of experts from the executive positions of Vice President, Assistant to the President, Deputy Dean, Assistant Dean, Director, Administrator and Supervisor of Human Resource Management, Academic Section Director of Human Resources Management Office and Director of the Office under the Office of the President Supervising Human Resource Management from King Mongkut's Institute of Technology Ladkrabang, King Mongkut's University of Technology Thonburi and King Mongkut's University of Technology North Bangkok.

Results were then gathered from expert interviews to analyze and synthesized to develop a 5-level rating scale questionnaire which was to be delivered to 20 experts to assess the levels of competency of academic support personnel in higher education institutions under state supervision with an emphasis on science and technology. The second round of the EDFR analyzed the results of research using basic statistics such as median and interquartile range. The aforementioned questionnaire, devised in accordance with EDFR technique, was the center of the third round and was sent to the original group of experts to confirm the consensus demonstrated in earlier responses concerning tendencies examined in the competencies of academic support personnel in higher education institutions under state supervision and to forecast future scenarios regarding performance. The results of the research are based on basic statistics such as frequency, mode, median and interquartile range.

The results of the research conducted in accordance to the EDFR process and research methodology and analysis of the experts' responses showed a trend, and looking at the future image of the competency of academic support personnel in higher education institutions under state supervision with an emphasis on science and technology, these consist of 3 areas: core competencies, performance according to duties and administrative competencies.

## VI. RESULTS & DISCUSSION

The results of the future data analysis of the competencies of academic support personnel in higher education institutions under state supervision with an emphasis on science and technology in accordance with EDFR techniques are as follows:

### A. Core Competencies

Experts give an overview of the core competencies in the overall picture with the value of Md. = 5, IR = 0.20 and the highest level of importance.

When considering the accumulation of expertise in a career, the value is Md. = 5, IR = 1.00. The items with the highest level of importance are all equal, including achievement. Good service, adherence to righteousness and teamwork is Md. = 5, IR = 0.00.

For the core competencies of academic support personnel, the experts emphasized the importance of aiming for achievement. Good service, accumulating proficiency, adherence to righteousness and teamwork were also significant and overall core competencies are deemed as important and necessary for organizations generally. Academic support personnel must aim for the highest achievement in their work; this requires a commitment to perform well and a desired to exceed existing standards while aiming for target consistent with the goals of the organization. Providing good services needed by society is key because service providers that have an understanding of the needs of clients will therefore have the attention and willingness to provide services that create satisfaction and fill actual needs. For the accumulation of professional expertise, the experts are of the opinion that workers must have the drive and ability to accumulate new knowledge and to study and research for continuous self-improvement in order to maximize benefits for the organization. In addition, adherence to righteousness is considered important because organizations benefit from personnel who conduct good deeds with a sense of morality, ethics and professionalism. This is especially

necessary for working as a team, as everyone must understand their roles and duties in order to be fully responsible for their assigned tasks and fully participate in the processes of the organization. Troubleshooting, sharing of experiences and proposal of opinions and ideas facilitate the accumulation of professional expertise but the experts gave these secondary level priority due to the lack of expertise in their observation caused by shifts in and changes to work, resulting in lack of confidence.

### B. Performance According to Duties

Experts' responses regarding practical performance according to specific duties yielded values of Md. = 5, IR = 0.25, and the level of significance is at a highest level.

Values for analytical thinking were Md. = 5, IR = 1.00 respectively and the level of importance is high. The items with the highest levels of importance are all equal, including finding information, proactiveness, accuracy, flexibility, motivational and job responsibility, at Md. = 5 and IR = 0.00.

The experts emphasized that, in terms of the performance of academic support personnel, attention should be paid to the quest for information, proactiveness, accuracy, flexibility, motivational and job responsibility as much as possible. They are significant factors and important elements for all personnel, who should be willing and motivated to learn to gain the correct information in relation to their work, to have foresight and appropriately plan in advance by recognizing both problems and opportunities in order to deal with any issue decisively and accurately. Effective personnel must also be artful in communication and proficient in modern media, as the ability to adapt to the current fast-changing environment requires media savvy to impress, to support, to influence and to convince colleagues and clients, leading them to adhere to desired ideas and directions.

All personnel should be dedicated to their job responsibilities and committed to performing their duties efficiently and effectively. Cost-effectiveness, responsible and sustainable use

of resources and benefits for clients should also be taken into account. Analytical thinking's importance is clear; it allows for looking at the overall image so it is a performance competency that the experts give priority to. This analytical and critical thinking must be fostered because personnel who are new to the job are not able to adequately analyze and see their duties in terms of how they fit into the big picture. They still lack work experience but executives at higher levels should possess the overall vision to be able to see at the overall image of the organization and guide lower level personnel in the right direction.

### ***C. Administrative Competencies***

For administrative competencies, Md. = 5 and IR = 0.29, with experts also giving this area the highest level of importance.

While considering strategic vision, strategic thinking has values of Md. = 5 and IR = 1.00 and the level of importance is high. The items with the highest level of importance are again all equal, including potential leadership status to bring change, self-control, teaching, problem solving and decision making, at Md. = 5 and IR = 0.00.

The experts emphasized the administrative competencies of academic support personnel in leadership situations in potential to bring about change, self-control, teaching, problem solving and decision making because these principles of management must be understood and adequately applied within relationships between those with different degrees of power, both formal and informal, in the organization and it is important to remember that the ability to manage is not necessarily inherent to a management position.

Academic support personnel are able to be leaders if they have the potential to apply modifications such as change management, especially in their dedicated duties, in order to develop and improve the work to be effective and in alignment with the overall strategic vision and strategic thinking. This underlines its importance as a high level element since traditionally vision and strategic thinking are

mainly the purview of higher-level executives rather than that of the academic support personnel who are primarily responsible for the routine operations.

## **VII. CONCLUSION**

From the study of the core competencies, functional competency (performance according to duties), and administrative competencies for academic support personnel, many elements should be considered as important, being essential to the development of overall personnel competencies in an organization. For the management of human resources to be effective, it must be able to adapt to rapid changes, support sustainable growth and to be competitive in the modern world. Being competitive means developing and maintaining personnel to meet appropriate performance standards according to their own levels and to possess the knowledge, skills, expertise, habits and thought processes that will result in operational efficiency. Effective personnel must have the ability to cope and adjust to changes that are more rapidly occurring in the presently technologically based society. Focusing on achievement, good service, adherence to righteousness and teamwork are considered to be the core competencies that all personnel in the organization must practice thoroughly to better bring about success. The emphasis on providing quality services and impressing the clientele, and teamwork resulting from the collaboration will also increase chances of success. For performance according to duty, or functional competencies, personnel should strive to search for information to better themselves and the processes they affect. This also involves proactive action to keep pace with current changes, and must take into account accuracy, know-how and flexibility to adapt to the environment and new, evolving working situations. Personnel should be self-motivated and also adept at motivating others, be it through shared work or creative experiences or other ancillary products or activities. Work must be efficiently assigned and consistent, and needs leadership with the ability to convince them to follow and meet organizational needs. Organizational leaders

should recognize potential in people in order to apply both work and job adjustments appropriately and institute work processes suited to achieve the organization's goals. Leaders need to know how to control themselves to be able to work under stressful conditions and instill formal and informal teaching that encourages the transfer of knowledge and experience to the next generation of workers. This is in addition to having the ability to make decisions and solve problems. Should personnel be developed to have these crucial competencies, the management of human resources in the organization would be more effective and able to lead personnel to bring success to the organization in a sustainable manner.

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**(Arranged in the order of citation in the same fashion as the case of Footnotes.)**

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