

Competency: An Introduction

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DOI: <https://doi.org/10.30880/mari.2021.02.02.003>

Received 25 April 2021; Accepted 16 March 2021; Available online 30 May 2021

Abstract: Competency or competence for some others is getting much attention in the past few decades, especially in the literature of management strategy. It was understood that the term is usually associated with training and educational fields. Unfortunately, there were occasions of misunderstanding on the appropriate usage for the term, at least within the realm of the Malaysian construction industry. Therefore, the paper presents a brief review of competency in order to unfold the concept of competency. The paper posits that skills, knowledge, and abilities (including attitudes) became the primary elements when discussing what is inside the “competency”. Nevertheless, it needs to be discussed along with its intended usage, function, and amid its appropriate contexts, with the purpose of having the most suitable meanings.

Keywords: Competency, Construction Management, Malaysia

1. Introduction

Competency or competence for some others is getting much attention in the past few decades, especially in the literature of management strategy during the 1990s [1]. It was understood that the term is usually associated with training and educational fields. Thus, to discuss in more details, the views from several researchers such as Le Deist et al. [1], Hassan et al. [2], Stoof et al. [3], Hager et al. [4], Hackett [5], Dogbegah [6], and the Royal Institution of Chartered Surveyors (RICS) [7] were taken into consideration. Discussions generally covered the underlying concept of competency and its related components.

2. Competency

To begin with, Hassan et al. and Stoof et al. were both agreed that the concept of competency is frequently used in the area of education including training and Continuing Professional Development (CPD) [2][3]. The particular concept is deemed to be the underlying formula to develop new educational methods or improvisation of an existing method. Besides, Stoof et al. added that competency is not limited only to educational purposes, but the significance of the concept was also appreciated by business organisations through their human resource development (HRD) programs [3].

According to Cambridge Advanced Learner’s Dictionary, competency (or competence) means “the ability to do something well” or “an important skill that is needed to do a job” [8]. Based on those meanings, it is clear that the particular terms have a clear definition, which emphasis on people who have an appropriate ability and skill in order to do a job or task with the required performance. Additionally, several quite similar definition from Hartle (1995), Fletcher (2004), and Armstrong (2006), where they were associating competency with the state or quality or characteristic of individual from being adequately well qualified to perform superior job performance [2].

But however, Le Deist et al., Stoof et al., and Hager et al. collectively argues on the exact definition of the terms, which they stressed that there is no precise meaning of competency [1][3][4]. The same thought shared by Hackett who faced difficulty while trying to frame a comprehensive definition of competency in relation to training [5]. Le Deist et al. and Stoof et al. maintained that such definition is somewhat confusing in determining the concept of competence which may cater to different ways of usage [1][3].

To state a simple example, “a course or program is being developed in order to achieve a set of competency needed by the industry”. Based on the previous statement regarding a job situation, “competency” means everything important required by employers to ensure that their employees were capable or competent enough to carry a particular task. But still, those statement remains ambiguous especially on “everything important” and also “capable or competent”. Therefore, through the culmination of findings from the aforementioned researchers, a summary table (**Table 1**) on the concepts of competency are drawn to ease the understanding of the subject in hand.

Table 1: Summary of competency’s concepts based on the previous researchers

| No. | Researcher(s) | Detail(s) |
|-----|-------------------|---|
| 1 | Hassan et al. [2] | <ul style="list-style-type: none"> • Concepts of competency (Figure 1): <div style="text-align: center; margin: 10px 0;"> <pre> graph LR Competency --> Technical Competency --> Behavioral Technical --> HardSkills[Hard skills] Technical --> Knowledge Behavioral --> SoftSkills[Soft skills] Behavioral --> Abilities </pre> </div> |
| 2 | Stoof et al. [3] | <ul style="list-style-type: none"> • Develop competency definition and concept by using a “constructivist” approach. • Firstly, using three variables that affected the viability of the definition of competency: <ul style="list-style-type: none"> ○ People (who is the stakeholders of the competency activities, i.e. educators, trainers, students, etc.) |

- Goal (what is the objectives of such competency activities, i.e. curriculum design, training design, etc.)
- Context (what is the nature of the organisations involved, their products and processes involved, and their intended users of the definition, i.e. university as a learning place for students which organised by educators, etc.)
- Secondly, using the boundary approach of competency by adapting the amoeba-like visual aid (**Figure 2**) consists of:
 - The inside-out approach; based on several dimensions:
 - Personal vs task characteristics
 - Individual vs distributed competence
 - Specific vs general competence
 - Levels of competence vs competence as a level
 - Teachable vs non-teachable competence
 - The outside-in approach; based on several terminological hygienes:
 - Competence vs performance
 - Competence vs qualification
 - Competence vs capability and ability
 - Competence vs knowledge, skills, and attitudes
 - Competence vs expertise

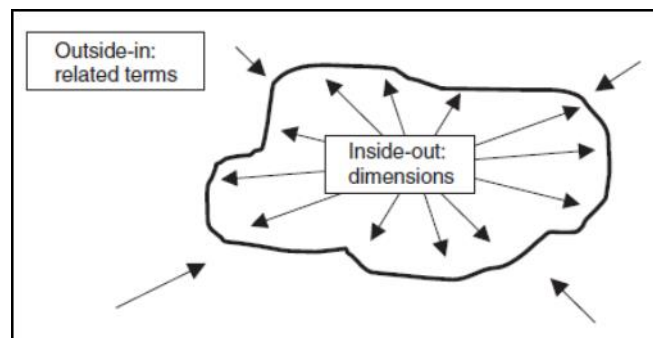


Figure 2: Stoof's outside-in and inside-out concept of competency

- Lastly, developing competency elements or concepts through the construction of definition based on the previous steps.

3 Hager et al. [4] ● Using an integrated approach to define a richer conception of competency (**Figure 3**):

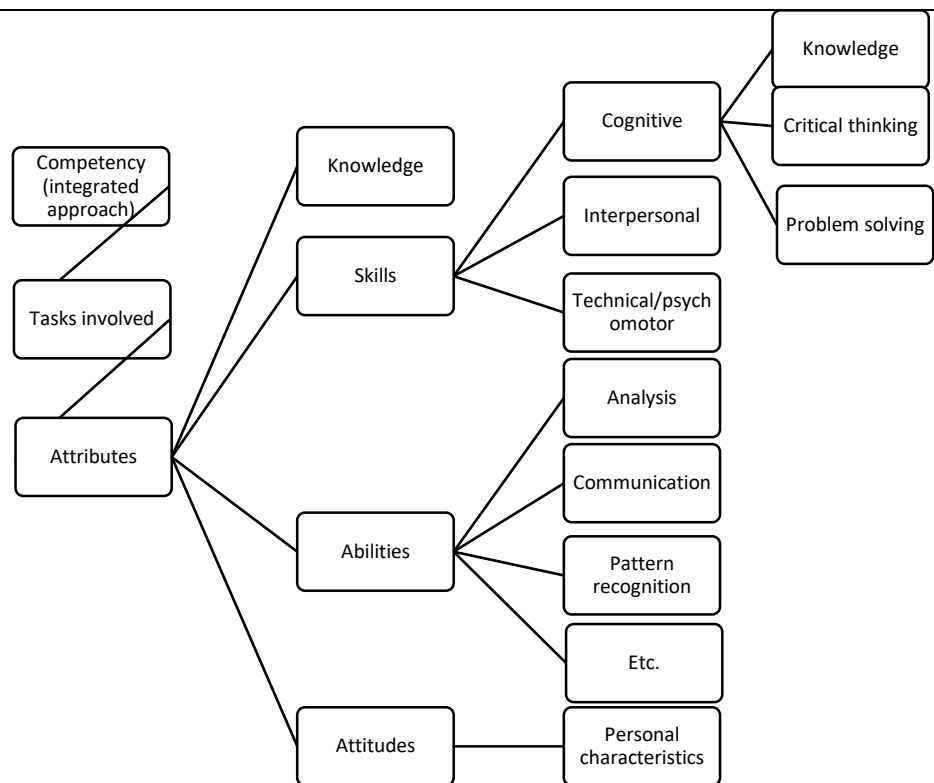


Figure 3: Hager's conception of competency

- 4 Le Deist et al. [1] • Using a multi-dimension framework to define the concept of competency (Figure 4):

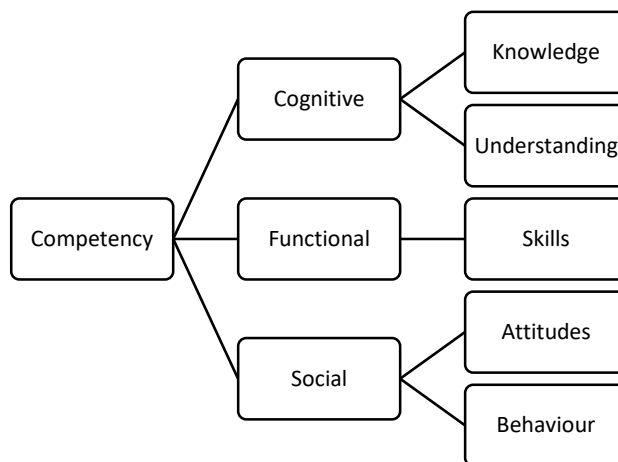


Figure 4: Le Deist's multi-dimension framework on the concept of competency

- Thus, representing the holistic competency model as a tetrahedron, which meta-competency signifies input that helps the acquisition of output competency (Figure 5):

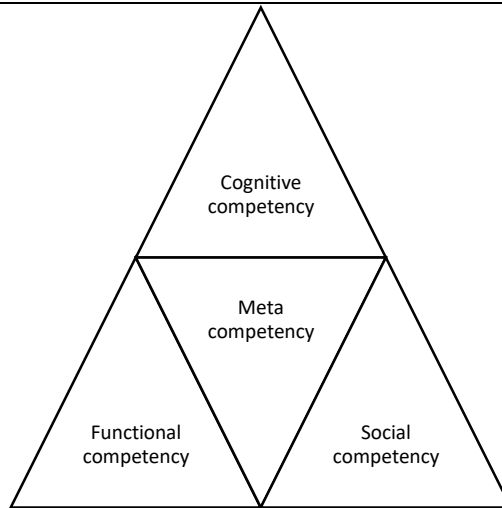


Figure 5: Le Deist's tetrahedron on meta-competency and output competency

- 5 Hackett [5] • By quoting the work of Pithers (1998), and Rylatt and Lohan (1995); Hackett comes out with the summary of competency's concept as follows (**Figure 6**):

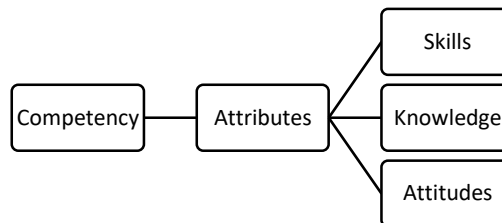


Figure 6: Hackett's competency concept

- 6 Dogbegah [6] • In culminating the views from Thamhain (1991), Wateridge (1998), Chen and Partington (2006), Chen, et al. (2008), Ahadzie, et al. (2009), Crawford (2005), Ahadzie et al. (2008), Isik, et al. (2009), Conway (1999), Borman and Motowidlo (1993), Fraser (2000), Edum-Fotwe and McCaffer (2000), Gellatly and Irving (2001), and Van Scotter and Motowidlo (1996) on the Project Managers competency, there are several approaches on competency: 1. Context Independent Attributes (**Figure 7**), 2. Task Performance Competency (TPC), and 3. Context Performance Competency (CPC).

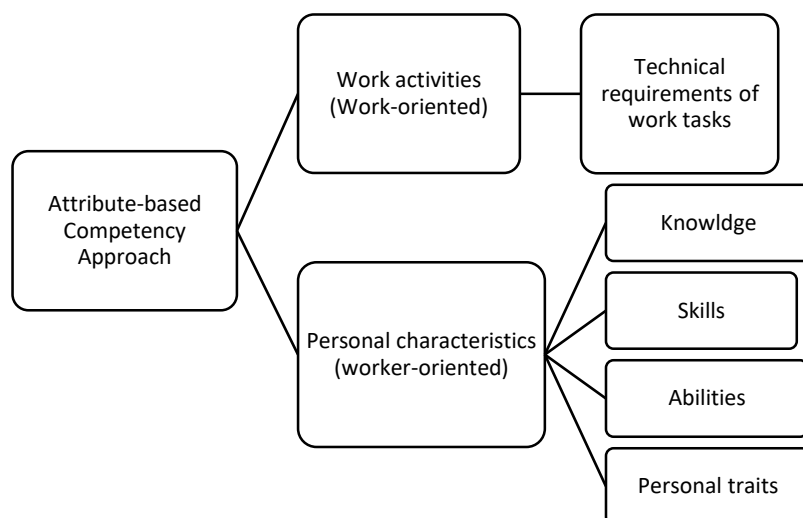


Figure 7: Context-independent attributes

- However, TPCs (**Figure 8**) are best predicted by drawing on cognitive ability, job knowledge, task proficiency and experience. TPC also contribute either directly or indirectly to the technical function and usually vary between different jobs in the same organisation. Nevertheless, the major sources of variation in TPCs are human characteristics such as knowledge, skills and abilities that vary with task proficiency.

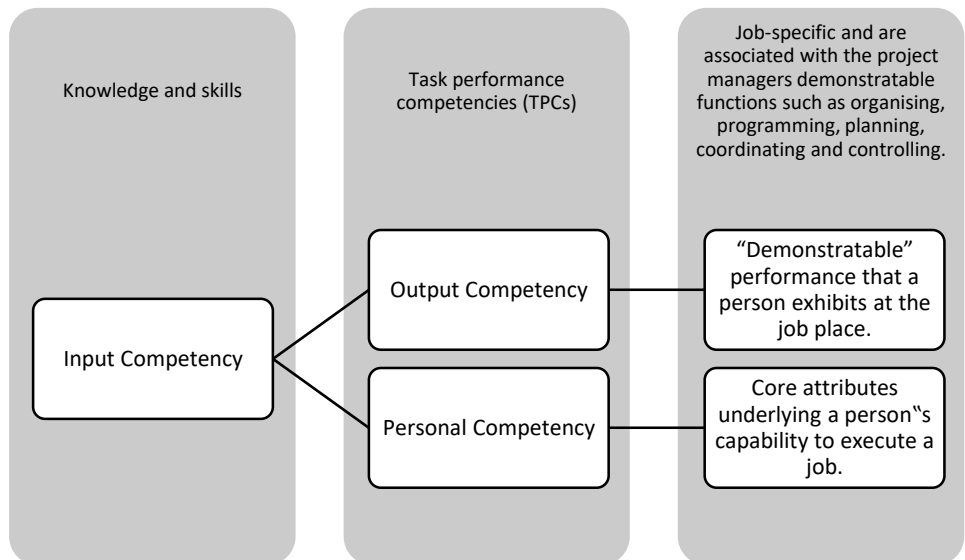


Figure 8: Task Performance Competency (TPC)

- On the other hand, CPC (**Figure 9**) is job-related acts which contribute to organisational effectiveness but are not formally recognised as part of the job. The knowledge, skills and habits associated with TPC are likely to be different from those associated with CPC.

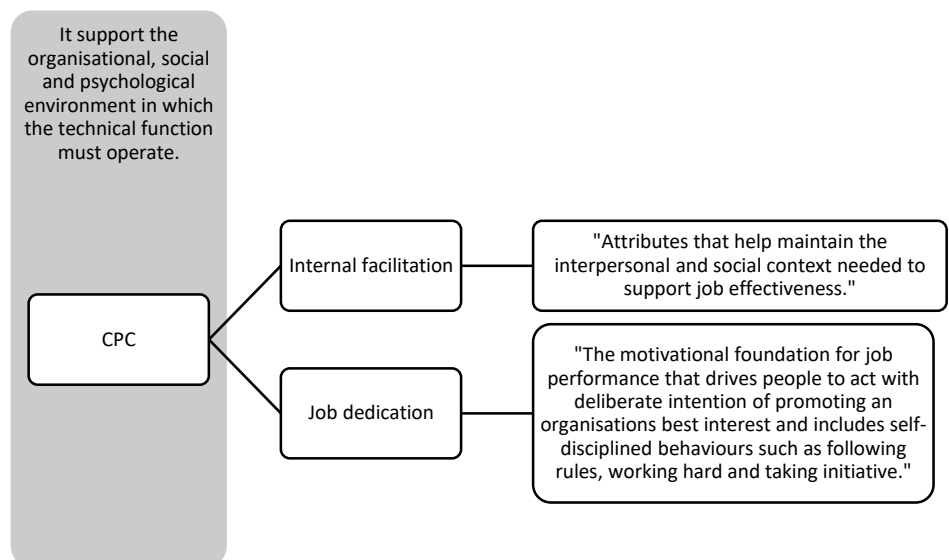


Figure 9: Context Performance Competency (CPC)

- However, the TPC offers a potentially significant methodology that could help isolate and explicit term on the different dimensions of the CPMs competency profiles so that a more detailed understanding could be made. Therefore, Dogbegah held the view that; the TPC is worth exploring in the pursuit of an empirically rigorous understanding of the CPMs competency profiles.

7 Royal Institution of Chartered Surveyors (RICS) [7]

- RICS’s Competency Mapping Framework (CMF) for quantity surveying (QS) programmes were categorising competency into Mandatory, Core, and Optional (**Figure 10**).

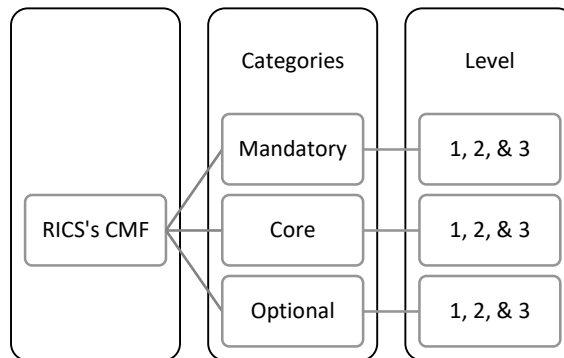


Figure 10: RICS’s Competency Mapping Framework (CMF)

- Where:
 - Mandatory is generic and basic skills for the QS to ensure the professionalism of the QS.
 - Core competencies are defined as essential skills towards practising QS.
 - Optional competencies are demarcated by their desirable nature of competencies that able to enrich the QS competency.
 - All categories are further divided into three (3) attainment levels, namely; Level 1 for knowledge, Level 2 for knowledge and practical experience, and Level 3 for knowledge, practical experience, and capacity to advise.
- RICS stated that competencies are a collection of technical, professional practice, interpersonal, business, and management skills. Within these, the culmination of skills and abilities which comprises of tasks, attitudes, and behaviours became the basis (**Figure 11**).

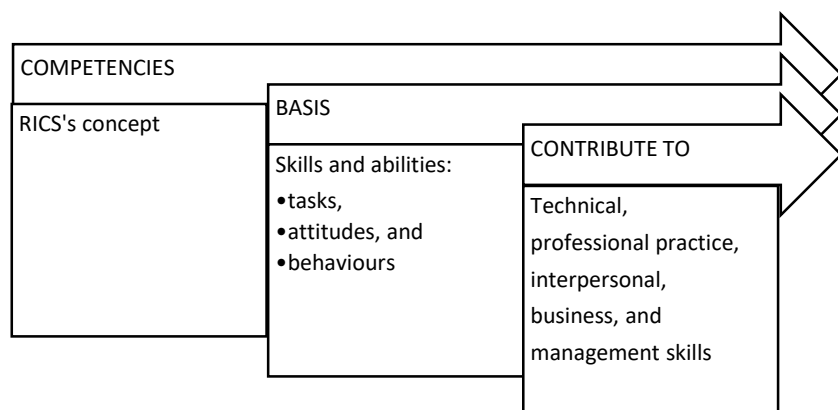


Figure 11: RICS’s competency concept

3. Visible Part of Competency

Highlighting the work of Stoof et. al. [3] and Le Deist et. al.[1]; Spencer and Spencer (1993), Hartle (1995) and Parry (1996) were mutually agreed on the visible part of “competency” which comprises of skills and knowledge. Spencer and Spencer (1993) stressed that skills and knowledge are noticeable and also teachable; he conceptualised his thought by using the iceberg model as the following figure

(**Figure 12**). Whereas, Parry (1996) categorised skills and knowledge as hard competency and can be developed through training. Moreover, Hassan et al. were also in the same boat where he grouped the skills and knowledge into one predecessor, which are the “technical” aspect [2].

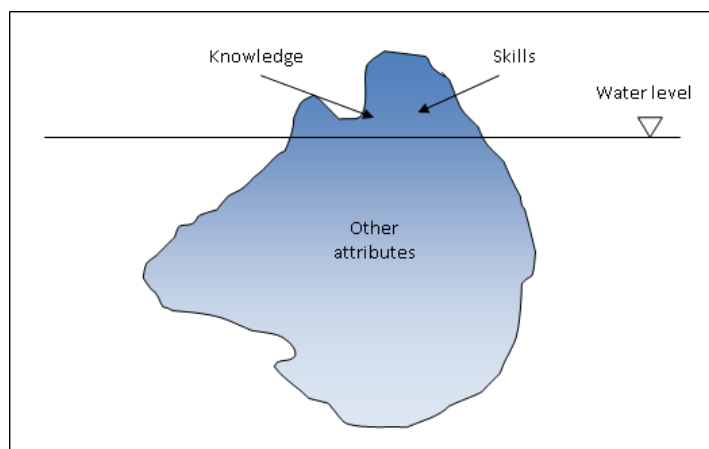


Figure 12: Iceberg concept of Spencer and Spencer (1993) [3]

Additionally, a learning curve related to competency can be differentiated between both types of competency (i.e. technical and non-technical) through a plotted diagram (**Figure 13**). Whilst aligned with the previous demarcation of competency; Rudarakanchana et al. (2015) asserted that both types of competency have a dissimilar pattern of contribution towards development level, by judging through cumulative competency achievement versus time spent (from novice to expert personnel) [9]. Technical competency requires a much shorter time to acquire, meanwhile the other way round for non-technical competency.

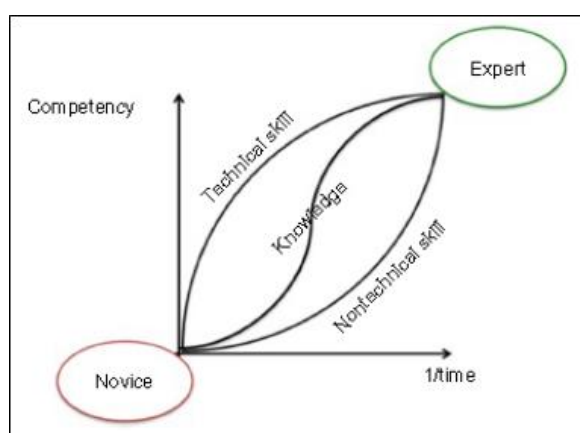


Figure 13: The Contributions of Knowledge and Technical and Non-technical Skills in the Development from Novice to Expert Performance [9]

4. Conclusion

Therefore, based on the previous table of summary (**Table 1**), it is obvious that the concept of competency underpinned the definition propounded by researchers. But however, it is noticeable that knowledge, skills, and abilities/attitudes (KSA) became the primary elements when discussing what is inside the “competency” – albeit technical or non-technical. Besides, most of the researchers agreed that “competency” need to be addressed along with its intended usage, function, and amid its appropriate contexts, in order to have the most suitable meanings. However, Mansfield (1996) continued as stressing that identification of basic, intermediate, and advanced levels of proficiency for technical

competency needs to be placed whilst judging the effective level of particular tasks to be performed. To sum up, the quest of finding the exact definition of competency will probably not worth without first knowing the particular usage of that term. Nevertheless, the concept of competency, which comprises of KSA will continue to shed lights on improvisation or development of new methods in the educational or training purposes.

Acknowledgement

All authors would like to thank Centre for Diploma Studies, University Tun Hussein Onn Malaysia (UTHM) for its support.

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