

# Building Blocks of Chef's Competency and Articles Distribution: A Literature Review

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## Abstract

Research on chefs is underrepresented in the hospitality literature. This article examined the expertise of chefs by identifying the journals, temporal scope, and the distribution of countries of origin. By searching databases such as Google Scholar, Science Direct, Emerald, and Scopus, 37 relevant articles from 23 journals were examined. This study also identifies the competency components needed in a chef's career and suggestions for future research. The findings indicate that a cook's competencies can be broken down into three categories, namely functional, core, and general competencies. These categories are shown below, along with examples of specific skills that build up a chef's competency blocks. It has been discovered that the qualities a chef needs include organisational competencies, self-management competencies, and innovative culinary competencies.

**Keywords:** Chef Competency, Hotel Industry, Technical Competency, Non-Technical Competency, Literature Review.

## Introduction

Competency is a skilful performance, knowledge, attitude, and ability that a person needs to accomplish a task (Boyatzis, 2015; Shoop et al., 2015). It is also defined as quantifiable patterns of knowledge, skills, abilities, behaviours, and other qualities that distinguish between high and average performance (Bissett et al., 2010; Sanghi, 2016; Shoop et al., 2015;). While the notion of competence appears to vary significantly due to its broad foundation, it has been researched in numerous contexts (Lambert et al., 2014; Lee, 2010; Takey & de Carvalho, 2015; Wang & Xu, 2017).

The definition of culinary competencies varies depending on the literature review. According to Jirasinghe and Lyons (1995), culinary competency is critical in culinary arts because it reflects the reputation of the educational institution and the students themselves. Competency includes both cognitive and kinaesthetic abilities. With the required level of skills in culinary arts, culinary competencies provide culinary arts learners with the necessary talents, skills, and information to effectively perform specific occupations, allowing for appropriateness and career advancement.

Birdir and Pearson (2000) identified the competencies that focus on the aspect of food research and management: Knowledge of recipe development, ratio formulation, the function of meal ingredients, food chemistry, and the use of additives in food products. Zopiatis (2010), on the other hand, identified technical competencies as the critical criteria to be considered a successful chef. Culinary-specific competencies include knowledge of food service management, the ability to develop menus and recipes, and being an expert in culinary flavours. Competencies in leadership and management are also essential requirements in this field.

To date, there is a lack of study on literature review in chef competency. According to Suhairom et al (2019), identifying and assessing a chef's competence has been challenging due to a lack of guidelines. Table 1 shows examples of articles that address the culinary competency of chefs.

Table 1

*Articles on culinary competency among chefs*

<b>Author</b>	<b>Country</b>	<b>Objectives</b>	<b>Unit of analysis</b>	<b>Instrument</b>
<b>Suhairom et al (2019)</b>	<b>Malaysia</b>	<b>To identify competencies that are perceived to be vital to culinary professionals, especially the young chefs in the industry.</b>	<b>1. Culinary professionals 2. Culinary academics in culinary education institutions</b>	<b>Interview</b>
<b>Zopiatis (2019)</b>	<b>Cyprus</b>	<b>To identify which competencies were perceived as important and undeveloped, and to determine any gaps between those two</b>	<b>Chef professionals</b>	<b>Questionnaire survey</b>
<b>Suhairom et al (2015)</b>	<b>Malaysia</b>	<b>To examine instruments for measuring culinary competencies among chefs for superior performance at work, how competencies at the workplace are assessed, and the importance of competency measurement among chefs</b>	<b>Members of Chefs Associations of Malaysia (a Facebook group).</b>	<b>Questionnaire survey</b>

Bissett et al (2010)	USA	To identify self-perceived competence and how important each competency is to job success	Research Association members	Chef	Questionnaire survey
Hu (2010)	Taiwan	To explore competency issues related to innovative culinary practices	Senior chefs, managers, research chefs	R&D	Questionnaire survey
Birdir & Pearson (2000)	USA	To identify basic competencies of research chefs	Research chefs		Questionnaire survey

**In light of the aforementioned issue assertions, this review study was conducted to answer these questions**

- (1) What are the distributions of chef competency articles from the literature in terms of research methodology, journal name, year of publication and country of origin?
- (2) What are the building blocks of competency required for a chef?

It is anticipated that this review will shed light on readers by providing a pattern of the published articles within the context of this topic and a clear understanding of the components that build a chef's competency.

### **Literature Review**

The industry has changed dramatically due to globalisation, technological advances and changing economic conditions, and the required competencies have been identified and become essential to the hospitality industry (Weber et al., 2009). According to Mahfud et al (2019), the competency of chefs can be divided into three main blocks: functional, core, and general competencies. At the eleventh meeting of the ASEAN Task Force on Tourism Manpower Development, a minimum standard for the competencies of travel, housekeeping, front office, and food and beverage service professionals was established. This competency standard is known as the ASEAN Common Competency Standards for Tourism Professionals (ACCSTP), and is based on knowledge, skills and attitude (The ASEAN Secretariat, 2018).

Functional competencies are the specific competencies required to perform roles or tasks in a work area and include skills and expertise (know-how) to perform effectively. Functional competencies include taking and processing orders, serving guests, and operating bar equipment. On the other hand, the industry has agreed that core competencies are important for someone to be considered competent in a particular primary division of labour. These competencies are directly related to key occupational tasks and include working effectively with colleagues and customers and implementing health and safety measures in the workplace. General competencies, on the other hand, are industry-recognized competencies that must be attained in a specific secondary work area. The term general competency is often associated with a life skill, which refers to the ability to use common tools and technologies, as well as the ability to manage and resolve conflict situations.

Suhairom et al (2019) stated that competency could also be distinguished into two types:

technical and non-technical. According to Stasz (2001), technical competency refers to specific skills required in employment and may include skills or knowledge in utilising specific tools or processes. Technical competency is frequently stated in job descriptions or industry skill standards, particularly in certified or licenced occupations, and measured through standardised assessments. Similarly, technical competency is related to an individual's specific field of study, preparation, or occupation (Medina, 2010).

Non-technical competencies were defined by Koopmans et al (2014) as behaviours that go beyond the formally prescribed work goals, such as taking on extra tasks or showing initiative. It refers to knowledge, skills, and abilities. There have been numerous studies that address the importance of non-technical competency, particularly among graduates. Due to the professional nature of a chef, which deals with many technical elements, culinary-specific competencies are essential for a successful career as a professional chef (Bissett et al., 2010; Lee-ross, 1999).

However, non-technical competencies are also crucial, as most published studies in various disciplines agreed on the importance of non-technical competencies as a bonus for competent individuals in the twenty-first century (Allen & van der Velden, 2012; Kaprawi et al., 2010; Kyndt & Baert, 2015).

### **Research Methodology**

This study is a review study aimed at analysing the distributions of chef competency articles and reviewing the building blocks of a chef's competency. The database for the articles in this review comes from Google Scholar, Science Direct, Scopus, and Emerald. To ensure that the research is up to date, only studies published between 2000 to 2020 were selected. The keywords used in the search string were "Chef AND Competency", "Culinary AND Skill" and "Competency AND Hospitality". Google Scholar yielded a more comprehensive result compared to other databases as common word variations are automatically searched within its parameters (Bakkalbasi et al., 2006; Jacsó, 2005). Initially, 45 articles were identified that relate to the topic and context of this study. These articles were then filtered by examining the content, and eight articles were not included as they were inappropriate for the goals of this review study.

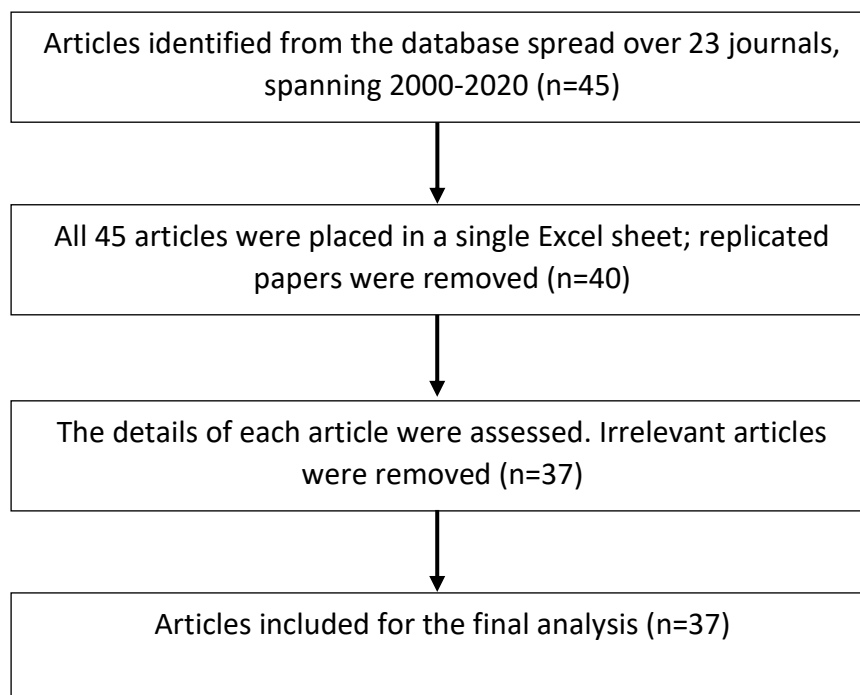


Figure 1. Flow diagram of the article selection process

## Results

Based on the extraction from 37 articles, the competency components and instruments were validated by the expert review. The results are presented based on the two objectives of this review paper: 1) the distributions of chef competency articles in relation to research methodology, journal name, year of publication and country of origin, and 2) the building blocks of competency required for a chef.

### Distributions of the articles by the research methodology

The distribution of articles extracted for this review study varies in terms of research methodology: questionnaire survey, longitudinal research, Delphi method, in-depth interviews, semi-structured and structured interviews, document analysis, and mixed methods research. These approaches are grouped into four primary methodologies: quantitative, qualitative, mixed methods and review study. Table 2 summarises the number of articles based on the four main research approaches, with the quantitative approach dominating the distribution.

Table 2

*Research methodology of the reviewed papers*

Research methodology	Number of papers		
	2000-2010	2011-2020	Total
Qualitative approach	2	5	7
Quantitative approach	4	20	24
Mixed methods	1	4	5
Review study	1		1
<b>Total</b>	<b>8</b>	<b>29</b>	<b>37</b>

**Distribution of Articles by Journal Name**

The articles of this review study were extracted from 20 different journals, as shown in Figure 2. The majority of the articles reviewed in this study were derived from the International Journal of Hospitality Management. International Journal of Hospitality Management was published by Elsevier with the Social Sciences Citation Index and was categorised under the field of hospitality, leisure, sport and tourism from the Journal of Citation Reports. The second-highest number of articles reviewed comes from the International Journal of Contemporary Hospitality Management.

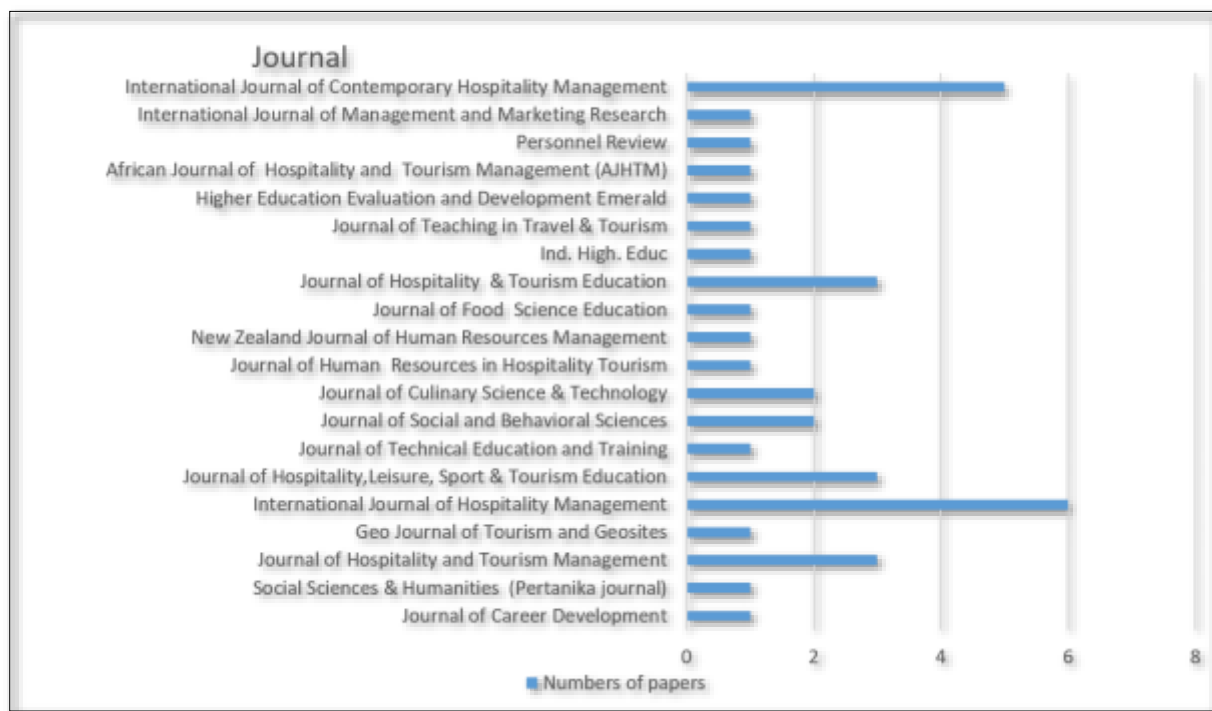


Figure 2. Articles distribution by journal name

**Distribution of articles by year of publication**

Based on Figure 3, there are eight articles were published in 2019. Previous researchers studied the chef competency needed in the industry. The second highest is in 2020 which is five articles.

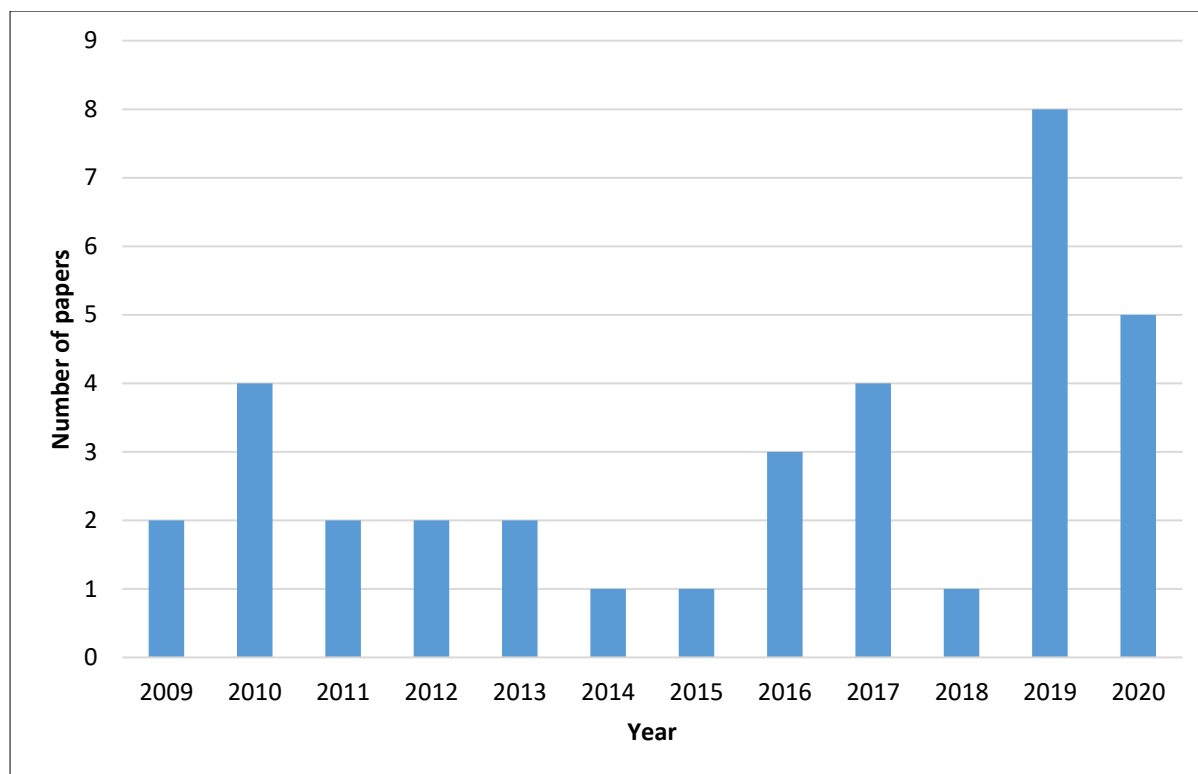


Figure 3. Articles distribution by year of publication

#### Distribution of articles by country of origin

The literature is organised according to the country of origin, which corresponds to the site of the research that was done. It was found that of the 37 identified articles related to the topic of chef's competency, most of the data were collected in Malaysia (7), followed by Taiwan (6), the United States of America [USA] (5), Cyprus (2), United Kingdom [UK] (3) and India (2). The remaining countries are shown in Figure 4.

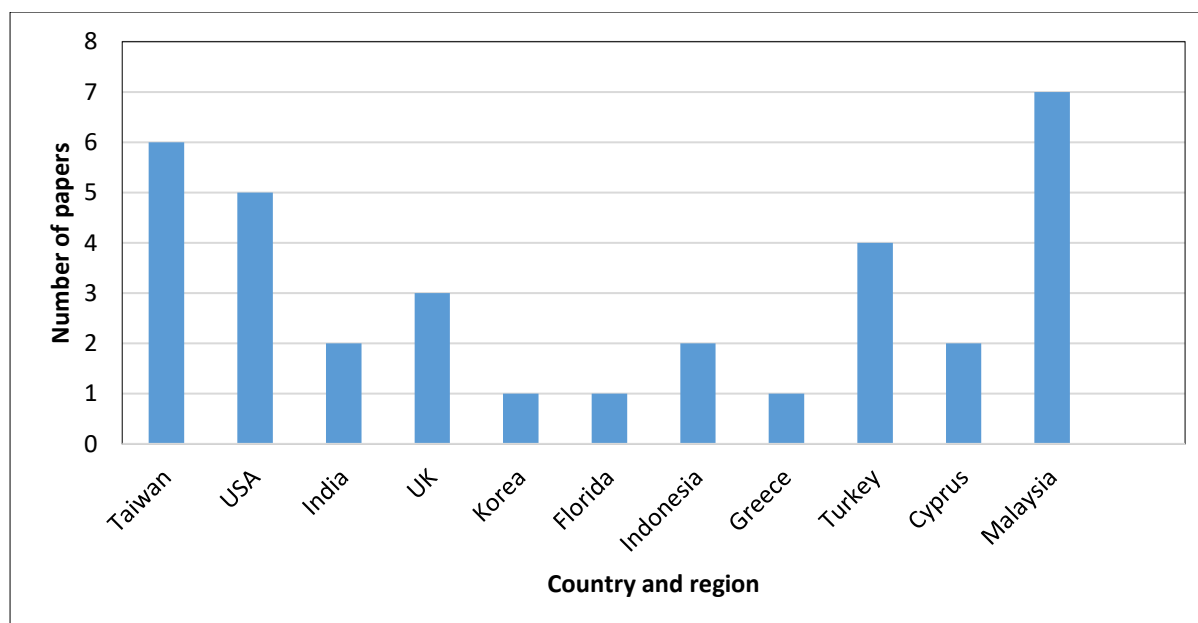


Figure 4. Distribution of articles by country of origin

**Competency components needed in chef's career**

The synthesis of the research on chefs' competencies relates to the three competency dimensions of functional, core, and general competencies. In addition, there are some competence dimensions from previous studies (Table 2).

Following Mahfud et al (2019), chef skills include all three elements of these competencies, which consist of functional competencies, core competencies and general competencies. Culinary expertise, including cooking skills, taste and food knowledge, and streamlining service, is the functional competency of the chef. Conceptual skills, cleanliness and business acumen are all core competencies. Interpersonal skills, leadership, management and motivational skills form general competence. Culinary educators and trainers seeking long-term professional development in the culinary industry might use the chef's competencies as a guide.

Technical competence and individual job performance have been found to be linked. Employees with strong technical skills can perform well in their jobs. According to Stasz (2001), technical competence refers to specific skills required in a job and may include references to academic skills or knowledge of specific tools or processes. Technical competence is often codified in job descriptions or industry qualification standards, especially in certified or licenced occupations, and is assessed with standardised tests.

Similarly, technical competence is linked to a person's particular field of study, preparation or profession (Medina, 2010). In the labour market, experience and practical training have exceptional and irreplaceable value. Non-technical competencies, also referred to as employability skills, generic skills, general skills, core skills and essential skills (Ahmad Nabil et al., 2011), include personality, attitudes, communication skills, problem solving, organisational management and decision-making skills (Rizal et al., 2008).

Mary et al (2019) examined the competencies required for success in the hospitality industry by employee demographic characteristics (gender, age, education, job title and years). In this study, she found six competency factors, including soft skill competencies, leadership competencies, interpersonal competencies and self-management competencies

Hu (2010) studied innovative culinary competency for innovative culinary departments. The study found seven dimensions, including innovative product, cultural, management, service, aesthetic, creativity and technology competencies.



Table 2

*Summary of chef's competency components*

No.	Author (Year)	Competency Building Blocks
1	Mahfud (2019)	1. <b>Functional competency:</b> cooking skills, taste and food knowledge, and service tightening. 2. <b>Core competency:</b> conceptual ability, cleanliness, and business sense. 3. <b>General competency:</b> interpersonal, leadership, managerial, and motivational skills.
2	Mary et al (2019)	1. <b>Soft skill competency:</b> listening skills, Accountability, written communication, guest interaction, decision-making, professionalism. 2. <b>Leadership competency:</b> innovative, creative, creating a work/life balance, spirit of optimism, inspiration. 3. <b>Interpersonal competency:</b> awareness of customers' needs, commitment to quality, motivate others. 4. <b>Organisational competency:</b> planning and implementation, strategic orientation, continuous improvement, and ethics. 5. <b>Relational competency:</b> time management, and network. 6. <b>Self-management competency:</b> peer interaction and fortitude.
3	Suhairom et al (2015)	1. <b>Technical competency:</b> Technical competencies in the chef's profession refer to the set of knowledge, skills, abilities, behaviours, and other attributes that are closely associated with cooking. 2. <b>Non-Technical competency:</b> culinary professionals are required to possess three types of intelligence: social, emotional, and cognitive.
4	Hu (2010)	<b>Innovative culinary competency:</b> culture, aesthetics, technology, product, service, management and creativity.

## Conclusion

This study provides a literature review of chefs' expertise in relation to a journal, the amount of time spent and the distribution across countries of origin. The International Journal of Contemporary Hospitality Management published the vast majority of the articles for this review. Most of the articles were published in 2019 and 5 articles were published in 2020. For this study, papers on chefs' competency that were published between 2000 and 2020 were mostly from Malaysia.

This review article can help researchers and practitioners advance their knowledge and lay the foundation for future research on the different research methodologies and the sources of the articles, which include the names of the journals and the countries of origin. The analysis of this review can also be used by educators who are currently developing or

delivering training courses and can help students acquire the skills required by the industry. Graduates need to be prepared to thrive in the future challenges of the hospitality industry. This study has the potential to enhance experiential learning in culinary arts, both for academic skill development and for practise in real work environments. This component bridges the gap between what educational institutions offer and what the industry expects. The hospitality and tourism industry could develop customised skills training for their chefs, as chefs are crucial in providing tourists with pleasurable experiences on the plate and promoting culinary dialogue.

Further research is needed to improve the knowledge and industry competencies generally expected of culinary graduates to develop such effective programmes. Instead of technical and non-technical competencies, Suhairom et al (2019) also noted that there are hidden competencies (i.e. self-concept, personality quality, physical state and motives) that are considered critical for culinary professionals, especially among young chefs in the industry.

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