



A systematic review of studies addressing the cost control process in food and beverage businesses

Şeyma Çakır^{a*}, Merve Özgür Göde^b

a Anadolu University, Türkiye,
ORCID: 0000-0002-4034-5105 / e-mail: s_cakir@anadolu.edu.tr

b Anadolu University, Türkiye,
ORCID: 0000-0002-7315-4284 / e-mail: merveozgurgode@anadolu.edu.tr

ABSTRACT

This study aims to synthesize and evaluate research conducted on cost control in food and beverage businesses using the systematic review technique. This study employed the PICOS research question strategy, adhered to the PRISMA-P principles, and utilized the PRISMA-P flow diagram to guide the research process. Between May and July 2024, the databases DergiPark, EBSCOhost, and ResearchGate were searched using a search formula developed by the researchers. As a result of these searches, seven articles were identified as eligible for inclusion in the systematic review. The study's findings indicate that the number of research articles published on cost control in the food and beverage industry is limited. It was also found that cost control is generally conducted in food and beverage businesses or their departments, mainly on a monthly basis. However, differences exist in terms of food and beverage cost control methods, with simple cost control methods being the most commonly used for food and standard cost control methods being the most frequently applied for beverages. This study contributes to the literature by systematically evaluating the cost control process in food and beverage businesses.

KEYWORDS

Food and beverage cost control, food and beverage cost control process, systematic review.

*Corresponding Author

Received 20.02.2025; Received in revised form 04.03.2025; Accepted 19.04.2025

This article is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

e-ISSN: 2687 - 3737 / © 2021 The Authors. Published by Anadolu University

<https://doi.org/10.48119/toleho.1643299>

INTRODUCTION

Food and beverage businesses, which hold a significant position within the service sector, must prioritize cost control to sustain their operations in a highly competitive environment, enhance profitability and sales, and ensure customer retention and satisfaction. Compared to other businesses, cost control in food and beverage businesses is more challenging due to the labor-intensive nature of the sector, the perishable nature of food and beverages, and the limited storage duration of these products (Çam, 2009; Akbulut & Aslan, 2015; Dülğaroğlu, 2023). However, as in all profit-oriented enterprises, the ultimate goal of food and beverage businesses is to maximize profit. Achieving this goal requires not only increasing sales but also utilizing resources efficiently and effectively, as well as controlling costs. The primary function of cost control, which is a comprehensive process encompassing everything from procurement to revenue control in food and beverage businesses, is to achieve this objective. Therefore, integrating food cost control methods, beverage cost control methods, and the five fundamental cost control standards is recommended for effective cost management in food and beverage businesses (Çam, 2009; Bulut, 2014; Okutmuş & Gövce, 2015; Işık & Yılmaz, 2016).

In this context, the primary aim of this study is to systematically synthesize and evaluate research on cost control in food and beverage businesses. To achieve this, the study employs a systematic review methodology to address the research question: *"In the national literature, which cost control methods are studied in food and beverage businesses in terms of cost control, and what is the current state and trend of research on this topic?"* When the literature is examined, various systematic review studies are found in the fields of tourism (Gomezelj, 2016; Ye et al., 2020; Üner, 2021; Yıldırğan & Batman, 2023) and gastronomy (Rachão et al., 2019; Yong et al., 2022; Uçuk, 2023; Bayram, 2023; Rosin et al., 2024). However, there is no systematic review study on food and beverage businesses. Accordingly, this study contributes to the literature in two ways: it is the first systematic review of food and beverage businesses, and it addresses the cost control process from a systematic perspective. In addition, it aims to make a practical contribution by providing recommendations that will guide decision-making processes for managers of independent food and beverage businesses, as well as food and beverage departments in hotels and accommodation establishments.

CONCEPTUAL FRAMEWORK

Businesses operate in line with their predetermined goals to sustain their existence and increase profitability. However, the successful realization of these goals depends on the effective control of business processes (Ninemeier, 2000). Control encompasses the process of measuring the achievement of predetermined goals, identifying deviations, taking necessary corrective measures, and reporting them to management (Kutlan, 1998; Büyükmirza, 2021; Tiana et al., 2022). Today, increasing competition conditions have made it imperative for businesses to keep their costs under control. This is because the profit businesses achieve depends on the balance between costs and revenues. When cost control is effectively implemented, it enables efficient revenue management by addressing factors such as fixed capacity, market segments with similar characteristics, perishable inventory, fluctuating demand, and high fixed costs. In other words, proper cost control also allows businesses to optimize their revenues (Suklabaidya & Singh, 2017). Therefore, as costs decrease and revenue increases, profitability will also rise. For this reason, businesses must have a thorough understanding of cost elements and manage them effectively to reach their targeted profit levels (Atmaca & Yılmaz, 2011; Anasız, 2019).

Cost control is particularly significant for food and beverage businesses, which operate with high costs. Cost control in food and beverage businesses aims to eliminate excessive labor, food, and beverage costs (Dittmer & Keefe, 2005; Akbulut & Arslan, 2015). Therefore, continuously monitoring and controlling labor costs, material costs, and other operational expenses play a critical role in the profitability and sustainability of food and beverage businesses (Dopson & Hayes, 2016).

Food and beverage cost control is a process that extends from the purchasing stage to receiving control, storage, issuing materials from storage, production, and revenue control (Akbulut & Arslan, 2015; Özbirecikli & Güven, 2016; Anasız, 2019). Any disruption in this process

can reduce the efficiency of cost control, negatively affect the accuracy of analyses, and complicate decision-making processes (Yilmaz, 2007). Food and beverage cost control aims to establish and maintain standards, conduct revenue and expense analyses, ensure accurate pricing, take measures against waste and theft, and inform management about this process (Aktaş, 2001; Erdinç, 2009; Köroğlu, Biçici, and Sezer, 2011; Akın & Akın, 2013). However, various factors complicate cost control in food and beverage businesses. The perishability of food and beverages, the unpredictability of customer preferences, the difficulty of sales forecasts, the necessity of processing and selling products within short periods, classification challenges, and the sale of products in small portions are some examples of these factors. Therefore, food and beverage businesses require effective cost control methods to monitor whether costs align with predetermined targets and ensure accurate cost tracking (Dönmez et al., 2011; Akyürek & Kızılcık, 2018).

Commonly used food cost control methods in food and beverage businesses include the simple food cost control method, the standard food cost control method, the detailed food cost control method, and the potential food cost control method (Uçma Uysal, 2015; Miller et al., 2005; Çiftci & Köroğlu, 2008; Erdinç, 2009; Çam, 2009; Özdoğan, 2010; Ojugo, 2010; Akın & Akın, 2013; Dönmez et al., 2011; Akbulut & Arslan, 2015; Sancar, 2016). The simple food cost control method, commonly used in small-scale food and beverage businesses, involves calculating daily and monthly food costs, comparing these costs with sales ratios, and analyzing trends from previous periods (Sancar, 2016). The standard food cost control method examines increases and decreases in past food costs in detail to determine which ingredients contribute to these changes, thereby providing more realistic data (Çiftci & Köroğlu, 2008). The detailed food cost control method aims to monitor daily cost variations effectively and identify which ingredients impact costs (Taşkın, 1997). The potential food cost control method (also known as pre-costing or pre-control) forecasts expected future food costs, takes necessary measures (such as adjusting food prices, menu planning, and controlling portion costs), and aims to improve operational efficiency (Akbulut & Arslan, 2015).

In addition to food costs, controlling beverage costs is also crucial for food and beverage businesses. Beverage cost control is crucial for increasing profit margins, preventing waste and theft, and providing clear information to relevant units. Food cost control methods can also be applied to beverage cost control. Additionally, commonly used beverage cost control methods include the percentage beverage cost control method, the sales price beverage cost control method, and the simple cost control method (Miller, 2005; Çiftci & Köroğlu, 2008; Özdoğan, 2010; Ojugo, 2010; Dönmez et al., 2011; Akbulut & Arslan, 2015; Boroğlu, 2016). The percentage beverage cost control method involves comparing predetermined beverage cost percentages with current percentages and can be applied on a monthly or daily basis (Çetiner, 2009). In the sales price beverage cost control method, beverages are taken from storage and evaluated based on their sales prices, then compared with actual sales revenues. It is essential to consider that beverage sales may occur in various forms, including bottles, cocktails, or neat, which can result in revenue variations (Dönmez et al., 2011). The simple cost control method for beverages is quite similar to the food cost control method, but the beverage cost percentage is generally expected to be around 20%. Like food costs, beverage costs can also be calculated on a daily and monthly basis (Çiftci & Köroğlu, 2008).

According to Çetiner (2009) and Rızaoğlu and Hançer (2005), to ensure effective cost control in food and beverage businesses, five basic standards should be established in addition to the cost control methods employed. These standards are the standard ingredient card, standard recipe, standard yield, standard portion, and standard food cost percentage. A standard ingredient card provides the identification of the characteristics of ingredients used in food and beverage businesses, such as shape, size, weight, color, durability, density, and taste. It facilitates the recognition of these ingredients by staff during the delivery of orders. A standard recipe is a fixed formula that ensures that a dish has the same quality, flavour, and appearance every time. This recipe offers convenience in food preparation and supports the standardization of meals (Gönen & Ergun, 2008). Standard yield is a standard that increases efficiency in food cost control by facilitating the planning of the products produced (Kahya, 2004). The standard portion is the

determination of the standard amount of food to be served to the customer (Yılmaz, 2005). Standard food cost percentage is the ratio of the cost of food sold to the revenue from food sales (Schmidgall & Damitio, 1996; Köroğlu, 2007). These five standards, when applied in an integrated manner with the food and beverage cost control process, contribute to effective cost management. In this context, cost control, which is vital for preventing excessive costs, increasing profitability, and ensuring sustainability in the food and beverage industry, can be achieved through continuous monitoring and control of labor and material costs, as well as revenue and expense analysis, and the establishment and maintenance of standards.

METHODOLOGY

In this study, which aims to synthesize and evaluate the evidence on the concept of cost control in food and beverage businesses, a systematic review technique was employed as the research design. Systematic review, also known as research synthesis, research review, or research compilation (Cooper et al., 2019), can generally be defined as the process of synthesizing publications related to a specific research question by bringing them together within predetermined criteria to answer that question. Systematic review is a research method that has been used in fields such as health (Hussey et al., 2009; Zuhur & Özpancar, 2017), education (Alp & Şen, 2021; Montenegro-Rueda et al., 2023), business (Sánchez González et al., 2010; Tiftik, 2022), and management (Boon et al., 2019; Ataç et al., 2022), as well as, in recent years, in the fields of tourism (Gomezelj, 2016; Ye et al., 2020; Üner, 2021; Yıldırğan and Batman, 2023) and gastronomy (Rachão et al., 2019; Yong et al., 2022; Uçuk, 2023; Bayram, 2023; Rosin et al., 2024).

Systematic reviews are a structured and comprehensive synthesis of numerous studies conducted using similar methods to determine the best available research evidence by experts in the field (Burns & Grove, 2007; Dickson et al., 2014; Çınar, 2021). The application process of this technique consists of a series of procedural steps. These steps are as follows (Gough et al., 2012):

- Determination of the research question,
- Identification of inclusion and exclusion parameters,
- Conducting a literature review,
- Selection of studies to be reviewed,
- Data collection and analysis, and
- Interpretation and writing of the results.

This study was conducted by considering these procedural steps. However, the evaluation of a study's quality is generally shaped by the extent to which it is free from methodological biases (Karaçam, 2013). Therefore, to ensure a stronger methodology for the systematic review, the research process was carried out by adopting PRISMA-P (2020) (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols). PRISMA-P is a 27-item guideline developed to ensure transparency and clarity in reporting systematic reviews (Moher et al., 2009) and is committed to by many journals (Bronson & Davis, 2011). Additionally, to structure the evaluation process more consistently, the approach proposed by Fish and Block (2018) was followed in the interpretation and analysis of the findings. This approach consists of six steps: 1) Motivating the topic and defining the research problem, 2) Systematically identifying relevant literature, 3) Structuring the review process, 4) Assessing methodological robustness, 5) Examining relationships among findings, and 6) Making the results meaningful. Therefore, in this study, the PRISMA-P was followed to ensure a stronger methodology that adheres to systematic review procedures. At the same time, the approach proposed by Fisch and Block (2018) was adopted for a more consistent evaluation.

The first step in conducting a good systematic review is to define the problem, which should be addressed as a clear, precise, and structured question. Since the search strategy is built upon the review question, formulating the review question is crucial for developing an effective search strategy (Çınar, 2021). Therefore, in this study, the PICOS model—stated to enhance the quality of literature reviews when used as a search strategy tool—was utilized to define the framework of the research question. The PICOS model is derived from the PICO concept, which was developed by Richardson, Wilson, Nishikawa, and Hayward (1995) to break down clinical questions into searchable keywords. Schardt et al. (2007) later extended this concept by

incorporating the type of question and the references needed to answer it. According to the PICOS model, the framework of a research question should be clearly defined in terms of participants (P: population), interventions (I: interventions), comparison groups (C: comparators), outcomes (O: outcomes), and study designs (S: study designs) (Çınar, 2021). In this context, the research question formulated within the scope of this study is: *"In the national literature, which cost control methods are studied in food and beverage businesses in terms of cost control, and what is the current state and trend of research on this topic?"*

P: Food and beverage businesses

I: Cost control in food and beverage businesses

C: None

O: Cost control methods

S: Qualitative, quantitative, and mixed-method studies

The sub-research questions formulated within the scope of this study are as follows:

- What is the distribution of studies on cost control in food and beverage businesses in the national literature over the years?
- What are the objectives and benefits of cost control in food and beverage businesses?
- What are the challenges encountered in cost control in food and beverage businesses?
- Which methods are used for cost control in food and beverage businesses? Which of these methods is used the most?
- What are the standards that must be followed in terms of cost control in food and beverage businesses?

In systematic reviews, after determining the research question, relevant studies must be thoroughly examined based on predefined inclusion and exclusion parameters. However, the abundance of sources and studies in the social sciences that may affect the quality, objectivity, and outcomes of systematic reviews makes literature screening quite challenging. According to Reed and Baxter (2009) and White (2009), while the search should be comprehensive, it does not necessarily have to be overly detailed. For this reason, widely used electronic bibliographic databases were preferred for searching published and unpublished studies in systematic review research. The selection of studies that met the inclusion and exclusion parameters was conducted using the electronic databases DergiPark, EBSCOhost, and ResearchGate. Conducting searches across multiple databases was intended to minimize potential bias. Although the primary research focus was initially set on cost control in independent food and beverage businesses, the study also included food and beverage departments within hotels or accommodation businesses. This inclusion was based on the growing significance of food and beverage services in the hospitality sector in recent years (Chand & Kapoor, 2014) and the integrated operation of food and beverage departments within general accommodation services. Regarding publication types, books, theses, conference papers, and unpublished studies were excluded from the scope. In terms of publication language, only peer-reviewed journal articles published in Turkish were considered. In line with these inclusion and exclusion parameters, studies on cost control in food and beverage businesses were retrieved using the following search formula: ("maliyet kontrolü" OR "maliyet kontrol") AND ("yiyecek içecek işletmesi" OR "yiyecek içecek departmanı" OR "restoran" OR "konaklama" OR "otel"). These searches were conducted in the relevant electronic databases between May and July 2024. Table 1 below presents the inclusion and exclusion parameters for the articles examined within the scope of this systematic review.

Table 1.

Inclusion and Exclusion Parameters

<i>Inclusion parameters</i>	<i>Exclusion parameters</i>
Studies on cost control in food and beverage businesses	Studies with no full-text access
Research articles	Studies published in languages other than Turkish
Studies published in peer-reviewed journals	

As previously stated, this study employed the PRISMA-P approach. Therefore, the PRISMA-P flow diagram was used as a reference when selecting studies to be included in the research. Based on the inclusion and exclusion parameters presented in Table 1, the PRISMA-P flow diagram used to determine the studies included in the systematic review is shown in Figure 1 below.

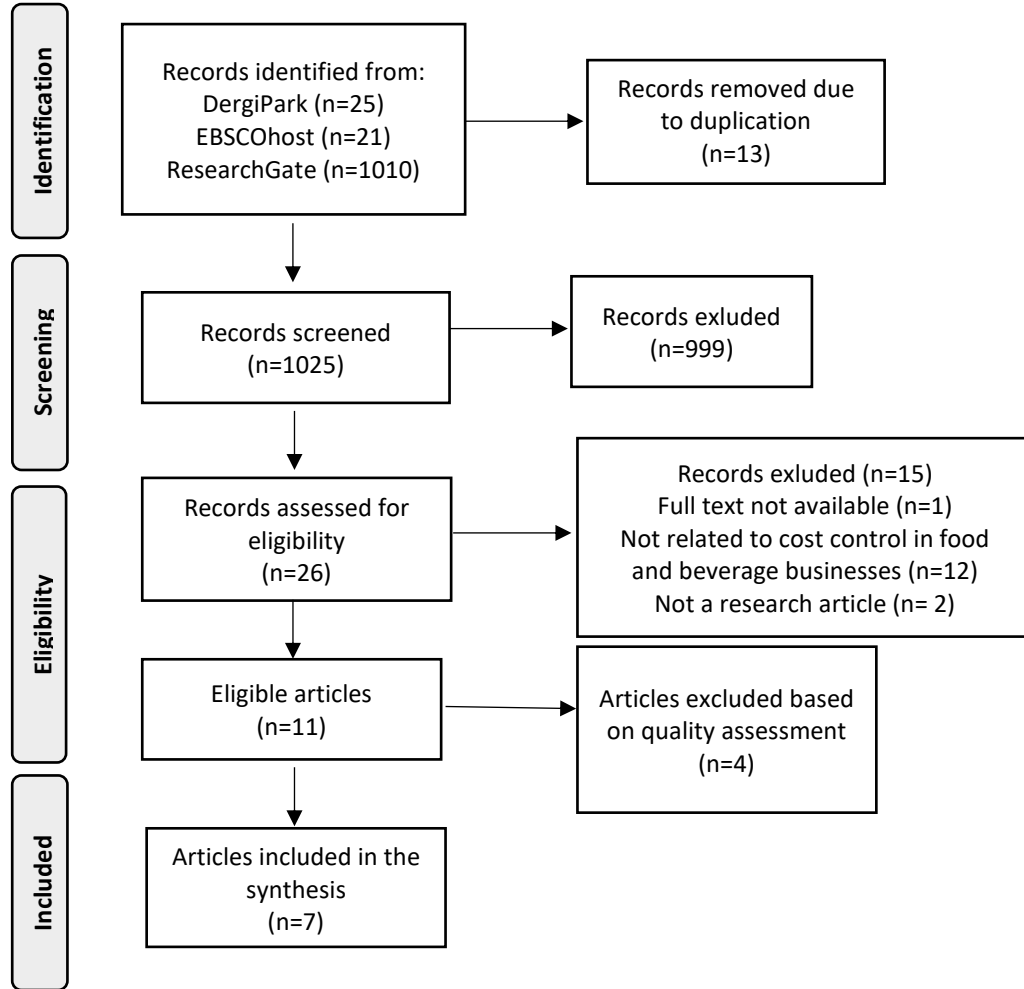


Figure 1. Identification of Studies through Databases According to the PRISMA-P Flow Diagram
(Source: Own research)

Table 2 below presents the details of the searches conducted, based on the PRISMA-P flow diagram as a reference.

According to PRISMA-P (2020), the methods used in the study must be clearly specified to determine whether a record meets the inclusion and exclusion parameters. This includes details on how many reviewers screened each record, whether they worked independently, and the databases used in the process. Additionally, Bronson and Davis (2012) state that to prevent individual bias, studies should be evaluated independently by two or more researchers, following predetermined criteria, and then compared for eligibility. For this reason, in this study, two researchers independently conducted title screenings (n = 1056), followed by detailed reviews (n = 26) based on the established inclusion and exclusion parameters. After all independent evaluations were completed, the findings were compared, and in cases where consensus could not be reached, a third expert was consulted to resolve any uncertainties.

Table 2.

Selection Process of Studies Included in the Systematic Review

Database	Search date	Number of articles retrieved from the search	Total number of duplicate articles	Number of articles removed due to irrelevant titles	Number of articles reviewed according to inclusion and exclusion parameters	Number of articles found suitable for systematic review according to the inclusion and exclusion parameters	Number of articles excluded from the systematic review based on quality assessment
DergiPark	03.05.2024	25	13	7	7	5	4
EBSCOhost	25.05.2024	21		3	6	2	
ResearchGate	15.06.2024	1010		989	13	4	

According to Patole (2021), the article exclusion process, a significant aspect of systematic reviews, must be conducted with utmost care, as it can potentially alter the results. As shown in Figure 1, in line with this approach, a review based on inclusion and exclusion parameters was conducted, resulting in the exclusion of studies that lacked full-text access ($n=1$), were not related to cost control in Food and Beverage Businesses ($n=12$), or were not research articles ($n=2$). Consequently, taking into account the research objectives and inclusion-exclusion parameters, the articles deemed suitable for systematic review were identified ($n=11$). However, Bronson and Davis (2011) suggest that studies deemed appropriate for systematic review based on inclusion and exclusion criteria should first be assessed using a series of quality evaluation methods. Therefore, to enhance the research quality and methodological rigor, the Mixed Methods Appraisal Tool (MMAT) Version 2018 was employed in this study.

MMAT is an instrument designed to evaluate primary research studies based on experiments, observations, or simulations, specifically empirical studies (Abbott, 1998; Porta et al., 2014). In other words, it is a critical appraisal tool designed for the evaluation phase of systematic reviews that include qualitative, quantitative, and mixed-methods studies. MMAT consists of two sections: a checklist and criteria descriptions. For each study included in the evaluation, the appropriate study category is selected, and the assessment is conducted based on the criteria specific to that category. For example, if an article follows a qualitative research design, it is evaluated solely based on the five criteria designated for the qualitative category (Hong et al., 2018). In this context, all articles deemed suitable for the systematic review ($n = 11$) were evaluated using this tool in terms of research quality and methodological rigor. Following the evaluation, it was determined that four articles would not be included in the synthesis. These articles were identified based on a “No” or “I do not know” response to one or both of the MMAT screening questions (S1: Are there clear research questions? and S2: Do the collected data allow for addressing the research questions?). The seven articles determined to be included in the synthesis (systematic review) were identified by receiving a “Yes” response to both of these questions, as MMAT does not recommend calculating an overall score based on individual criterion ratings or excluding studies solely due to low methodological quality.

The study has certain limitations. These include: 1) the inclusion of only articles published in Turkish within the national literature, 2) the inclusion of only full-text research articles from peer-reviewed journals indexed in DergiPark, EBSCOhost, and ResearchGate, and 3) the limited number of articles on the research topic within the national literature.

FINDINGS

In this part of the study, evaluations of the articles ($n = 7$) are presented in terms of research quality and methodological soundness, using the MMAT, and are included in the systematic review in line with the sub-research questions. Before evaluating the studies, a data extraction form was created. This form includes the databases, colophons, keywords, objectives,

research methods or costing methods, data collection tools, and results of the articles included in the systematic review. The data extraction form is shown in Table 3 below.

As a result of the systematic review, it is evident that the number of published research articles on cost control in the food and beverage industry is extremely limited. This can be attributed to the fact that owners or managers of food and beverage businesses are generally reluctant to share accounting data due to concerns about competition, confidentiality, and security.

As seen in Table 3, the articles were published in 2011, 2013, 2014, 2015, 2016, and 2019. This situation suggests that the number of articles published on cost control in food and beverage businesses increased after the 2008 global economic crisis. Following the crisis, businesses may have felt the need to manage their costs more effectively in order to maintain profitability and ensure long-term sustainability. For this reason, the increase in research on cost control in the food and beverage industry during the post-2008 period can be considered a natural result. The fact that digitalisation and technological developments in recent years have enabled businesses to monitor cost data more easily and in detail may have contributed to the increased interest in food and beverage cost control methods in academic research. In addition, the fact that issues such as sustainability and resource efficiency have also increased during this period may have led to an increase in research focused on reducing waste and optimising costs in food and beverage businesses.

The articles mention several objectives and benefits of cost control in food and beverage businesses. These objectives and benefits are as follows:

- Conducting revenue-expense analysis,
- Setting standards and ensuring their continuity,
- Establishing a foundation for pricing,
- Preventing theft and waste,
- Informing management,
- Ensuring profitability and sustainability,
- Identifying deviations and taking corrective actions,
- Gaining a competitive advantage,
- Improving service quality,
- Increasing customer satisfaction,
- Reporting data,
- Analyzing reports,
- Developing sales policies.

Income and expenditure analyses should be performed to monitor the financial status of food and beverage businesses and guide management decisions. Standards should be established and consistently maintained to enhance consistency and efficiency in operational processes. A basis for pricing should be established to support the accurate costing of products and services, and theft and waste should be prevented to ensure the efficient use of resources and minimize losses. Provide the necessary data and analyses for management to make informed and timely decisions, ensuring the long-term sustainability of profitability and increasing the business's financial success. Deviations should be identified, and corrective measures should be taken to identify the causes of performance problems and develop solutions. In addition, it should aim to increase the competitiveness of the business through strategies suitable for market conditions, to provide better customer experiences by improving service quality, and to increase loyalty by enhancing customer satisfaction. Therefore, it can be stated that effective cost control in food and beverage businesses enables them to achieve sustainable success by increasing their business volume.

Table 3.
Data Extraction Form

No	Database	Citation	Keywords	Aim	Research method	Data collection tool	Result
1	DergiPark	Dönmez, A., Arıcı, A. & Angay Kutluk, F. (2011). Research on food and beverage cost control applications and pricing in five-star hospitality enterprises in Antalya. <i>International Alanya School of Business Journal</i> , 3(1), 201-222.	Hospitality enterprises Food and beverage Pricing Cost control	To present the practices related to food and beverage cost control systems and pricing systems in accommodation businesses, including 5-star hotels and 1st class resorts operating in Antalya.	Quantitative	Survey	It has been observed that the majority of food and beverage businesses have established cost systems and place importance on food and beverage cost control.
2	DergiPark	Okutmuş, E. & Gövce, G. (2015). Comparatively analysing standard recipe at the cost control phase of food businesses and an application. <i>Niğde University Journal of the Faculty of Economics and Administrative Sciences</i> , 8(2), 79-90.	Food businesses Cost control Standard recipe	To demonstrate how cost control and efficiency in food businesses can be achieved by using standard recipes and balancing product quantities comparatively.	Quantitative	Secondary data	It has been observed that effective cost control and, consequently, cost efficiency have not been achieved in the business, resulting in issues of fraud and losses.
3	EBSCOhost	Köroğlu, Ç., Biçici, F. ve Sezer, D. (2011). The effects of cost control on superiority of competitiveness. <i>Journal of Business Research</i> , 3(1), 33-48.	Competition Cost control Cost control method	Explaining the relationship between cost control and the competitive advantage that can be achieved in hotel businesses operating in Marmaris.	Quantitative	Survey	As the star rating of hotels increases, the food and beverage cost and labor cost control methods they use differ. It has been observed that as the star rating increases, businesses gain a competitive advantage over other businesses operating in the same sector.
4	EBSCOhost	Işık, I. & Yılmaz, B. B. (2016). Food and beverage cost control in accommodation enterprises: an examination of food and beverage cost control methods of a hotel. <i>Journal of Entrepreneurship & Development</i> , 11(1), 60-83.	Accommodation enterprises Cost control Food and beverage cost control	Through the examination conducted in a selected hotel business as an example, the importance of cost control is demonstrated by analyzing which cost control method is applied through which process and whether this process is aligned with the intended purpose.	Mixed	In-depth interview (Secondary data)	It has been observed that the hotel business needs to revisit the processes starting from menu planning and including purchasing, receiving, storage, issuing goods from the warehouse, production, and sales activities, and continue its operations with a cost control method that supports these processes.

5	ResearchGate	Akın, A. & Akin, A. (2013). A study for detection of cost control systems applied in food and beverage organizations: Example of Gaziantep. Journal of Academic Perspective, (36), 1-16.	Food and beverage sector Cost Cost control Gaziantep	Identifying the cost control methods applied in food and beverage businesses with tourism operation certificates in Gaziantep and determining the current status of businesses regarding cost control.	Quantitative	Survey	It was observed that the businesses in the sample, which are classified as restaurants using à la carte menus, generally implement detailed cost control systems; that the menu type and business resources are important factors in the application of these systems; however, the owners and managers of the businesses were unsure whether their educational background has an impact on the cost control systems.
6	ResearchGate	Tandoğan, U. & Şahin, Ö. (2014). An implementation in using standard recipes and target costing on strategic decisions of food and beverage business. Niğde University Journal of Economics and Administrative Sciences, 7(1), 242-259.	Target costing Strategic costing Food and beverage cost Standard recipe	Determining how cost reduction or contribution margin increase strategies will be implemented in a food and beverage business in line with cost and profit targets, without compromising customer expectations, and how products will be designed with a focus on both customer and profit.	Quantitative	Interview (Secondary data)	It has been observed that a food and beverage business can control its targeted costs on a product basis by using standard recipes and can apply the target costing method in its strategic decisions.
7	ResearchGate	Büyükalvarcı, A. & Şener, G. (2019). International five-star chain hotel facilities cost control applications in food and beverage department and the case of Ankara province. Journal of Social and Humanities Sciences Research, 6(47), 4187-4197.	Cost Cost control Hotel management Food and beverage	Analysis of the cost control and operation of food and beverage departments in 5-star accommodation businesses with international chain status in Ankara province.	Qualitative	Face-to-face interview	It has been observed that hotel businesses need to effectively control food and beverage costs and implement cost control systems that are suitable for their operations to ensure sustainability.

The articles mention several challenges faced in cost control within food and beverage businesses. These challenges can be summarized as:

- Daily demand fluctuations,
- The impact of menu changes,
- Products used in multiple menu items,
- Stock diversity,
- Sales irregularities,
- Small portion sales,
- Stock turnover rates,
- Versatile use of materials,
- Lack of staff knowledge,
- Selection of an appropriate cost control system,
- The influence of indirect workers,
- Environmental factors.

As can be seen, several factors contribute to the difficulty of cost control in food and beverage businesses. While daily demand fluctuations make it challenging to maintain stock levels while preserving product freshness and quality, menu adjustments may be necessary if the estimated demand is not met. However, this may adversely affect the effectiveness of cost control. The use of purchased products in more than one menu item complicates portion costing. In contrast, the inability to track stocks of raw, semi-processed, or fully prepared products in the kitchen has a negative impact on cost control. Sales irregularities, as well as the sale of food and beverages in portions or by the glass, further complicate cost control processes. High inventory turnover rates make it challenging to track purchases made in varying quantities and at different prices, especially during peak periods. Additionally, the use of food and beverage ingredients in different meals and drinks creates further difficulties in portion costing. Additionally, the fact that personnel responsible for cost control and other personnel lack sufficient knowledge of costing, pricing, and service issues significantly reduces the effectiveness of control processes. The preference for cost control systems that are not suitable for the enterprise's structure and policy may cause the control to lose its effectiveness. At the same time, it is very difficult to measure the contributions of indirect employees, such as cleaning staff. Additionally, unexpected developments in economic, social, political, and technological spheres may adversely affect the enterprise's cost control system. Especially in inflationary environments, maintaining consistent cost control becomes even more challenging.

The articles mention some methods used for cost control in food and beverage businesses. These are simple cost control method, detailed cost control method, standard cost control method and estimated (potential) cost control method for food. For beverages, the percentage control method, the sales price control method, and the standard cost control method are used. However, the articles also mention the use of sub-methods, modern cost methods, and control tools related to these methods in terms of cost control in food and beverage businesses. These are daily simple cost control method, monthly simple cost control method, the Harris, Kerr and Forster method, the target costing method, standard recipes and product quantity balance tables. In the articles, it is mentioned that the most commonly used cost control methods in food and beverage businesses are the monthly simple cost control method for food and the standard cost control method and the percentage control method for beverages.

The articles mention several standards that should be followed in cost control for food and beverage businesses. These standards are as follows:

- Regular internal control and cost control of food and beverage items.
- Creating standard material and purchasing cards, and acting in accordance with them.
- Purchasing food and beverage items based on actual needs to prevent waste.
- Performing quality and quantity checks when food and beverage items are delivered.
- Tracking daily sales reports and maintaining statistics to determine menu preference indexes.
- Creating a standard menu list.
- Producing according to standard recipes.

- Monitoring production with comparative product quantity balance sheets.
- Tracking price changes in raw materials and goods and developing effective cost strategies.
- Implementing effective measures in purchasing, receiving, storage, production, revenue control, and personnel costs.
- Analyzing actual results in line with profitability expectations and forecasts, investigating the reasons for deviations, and taking corrective actions if necessary.
- Emphasizing menu planning and efficiently utilizing business resources.
- Using contemporary cost methods like target costing.
- Applying cost control methods that positively affect financial performance to gain a competitive advantage.
- Creating independent units for cost control in food and beverage departments.
- Continuously training accounting and audit staff on cost and control issues.
- Paying attention to cost control for profitability and sustainability in food and beverage departments of hotels or accommodation businesses.
- Managing the control of even small-scale costs like staff meals, considering them as part of the overall business expenses.

These standards include 1) Standards in terms of internal control and audit, 2) Standards for purchasing and materials management, 3) Standards for production and menu management, 4) Standards for efficiency and waste prevention, and 5) Standards in terms of competition and sustainability.

CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

This study aims to synthesize and evaluate the evidence related to the concept of cost control in food and beverage businesses. Therefore, studies from the national literature addressing cost control in food and beverage businesses were reviewed using the systematic review technique. By presenting the trends and the current state of these studies, a framework has been outlined.

Food and beverage businesses, which are an important part of the service sector, face challenges in cost control due to factors such as daily demand fluctuations, the impact of menu changes, products used in multiple menu items, stock diversity, sales irregularities, small portion sales, stock turnover rates, multi-purpose use of materials, lack of staff knowledge, choosing the appropriate cost control system, the impact of indirect workers, and environmental factors, according to the findings of the studies included in the systematic review. However, like any other business, food and beverage businesses must understand and control cost elements to survive in this highly competitive environment (Dimitrantzou et al., 2024). This is where cost control in food and beverage businesses comes into play, a process that spans from the purchasing process, including receipt control, storage, material withdrawal from stock, production, and revenue control. According to the findings from the studies included in the systematic review, cost control in food and beverage businesses aims to carry out income-expense analysis, establish and maintain standards, form the basis for pricing, prevent theft and waste, inform management, ensure profitability and sustainability, identify deviations and take corrective actions, gain competitive advantage, improve service quality, enhance customer satisfaction, report data, analyze reports, and develop sales policies. However, various factors make cost control in food and beverage businesses more difficult. Therefore, food and beverage businesses need effective cost control methods that allow them to track costs by determining them in advance and checking whether they align with the set goals.

According to the results obtained from the studies included in the systematic review, cost control is generally implemented in food and beverage businesses or departments, and this control is mainly carried out on a monthly basis (Dönmez et al., 2011; Köroğlu et al., 2011; Işık & Yılmaz, 2016; Büyüksalvarcı & Şener, 2019). While similarities exist among the studies in this regard, notable differences are observed in the food and beverage cost control methods employed. In the study by Dönmez et al. (2011), it was found that the most commonly used method for food was the simple cost control method, while for beverages, the standard cost control method was

employed. In the studies by Köroğlu et al. (2011) and Işık and Yılmaz (2016), they found that the simple cost control method was used extensively for both food and beverages without differentiation. However, in the study by Akin and Akin (2013), they concluded that the most commonly used method for both food and beverages, regardless of differentiation, was the detailed cost control method on a daily basis. These differences are believed to be related to the scope of the studies. Specifically, Dönmez et al. (2011), Köroğlu et al. (2011), and Işık and Yılmaz (2016) focused on food and beverage cost control in hotels or accommodation businesses, while Akin and Akin (2013) addressed food and beverage cost control in tourism-certified food and beverage businesses. This situation also aligns with the results of other studies in the literature. For example, in the studies conducted by Kutluk (2003), Çiftci and Köroğlu (2008), and Bulut (2014), which focused on food and beverage cost control in hotels or accommodation businesses, it was determined that the simple cost control method or the standard cost control method was most commonly used. On the other hand, a study by Akyürek and Kızılcık (2018) examining food and beverage cost control in independent food and beverage businesses found that the most commonly used method for food was the detailed cost control method. For beverages, it was the simple cost control method.

The frequent use of the simple cost control method or standard cost control method in hotel or accommodation businesses can be associated with the fact that the organizational structure of these businesses is more complex compared to food and beverage businesses. As a result, these businesses may require a more systematic approach to cost management. On the other hand, the widespread use of the detailed food cost control method in food and beverage businesses can be linked to the method's ability to overcome difficulties in product classification and facilitate the categorization of foods into groups such as vegetables and fruits, seafood, meats, and meat products.

According to some studies in the literature (Zainol et al., 2017; Cengiz et al., 2018; Pradiptha et al., 2018), in order to ensure effective cost control in food and beverage businesses, it is necessary to define not only cost control methods but also five fundamental standards: standard recipes, standard yields, standard portions, standard material cards, and standard food cost percentages. Particularly, the standard recipe is the most important tool in the food and beverage preparation and production process. Without standard recipes, it is not possible to control costs effectively. This is because the production of a menu item using different methods and materials will result in cost variations within each production cycle. The results of the studies included in the systematic review also indicate that food and beverage businesses should use standard recipes in their production process and monitor them through product quantity balance tables (Okutmuş & Gövce, 2015). If the product quantity balance is not adhered to, excessive use of materials will result in increased costs, or problems such as defective or substandard production, production losses, or theft may occur. In the study conducted by Okutmuş and Gövce (2018), excessive usage was detected, and it was reported that this excessive use seemed to be aimed at hiding unregistered sales or unreported production and sales. As a result, the study identified that the business was unable to effectively manage cost control and efficiency. Additionally, the studies included in the systematic review also highlighted the importance of using standard recipes in terms of contemporary costing methods, such as target costing (Tandoğan & Şahin, 2014). Target costing is a method used in the early stages before the production methods of a new product are designed and developed. In this method, operations are customer-oriented, production design is focused on, and the product's entire life cycle is considered. The goal of the method is to create a production process that generates the desired profit (Kaya, 2010). The standard recipe is a fundamental tool in the target costing process. The material quantities and prices specified in the standard recipe allow for the calculation of the unit cost of the product. At the same time, cost calculations made from the recipe enable adjustments to the product's components or quantities if the targeted profitability is not achieved. Therefore, preparing standard recipes with accurate and up-to-date information enhances the effectiveness of target costing.

The trend in research on cost control in food and beverage businesses in the national literature, although the number of published research papers on this topic is quite limited,

generally focuses on survey studies aimed at identifying the cost control methods used in the business. This situation may be due to the difficulty of accessing secondary sources related to food and beverage businesses compared to primary sources. Examining the current situation, it is evident that cost control in food and beverage businesses has not been thoroughly explored, both in terms of the calculations related to the cost control methods used and from the perspective of contemporary costing methods.

In future studies, examining articles from peer-reviewed journals indexed in multiple databases in the international literature and contributing their findings to the literature will provide significant contributions.

REFERENCES

- Abbott, A. (1998). The causal devolution. *Sociological Methods & Research*, 27(2), pp. 148–181.
- Akbulut, H., & Arslan, F. (2015). Yiyecek - içecek maliyet kontrolü: Batı Karadeniz Bölgesindeki otel işletmelerine yönelik bir araştırma. *Bolu Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 15(3), 71-106.
- Akın, A., & Akın, A. (2013). Yiyecek içecek işletmelerinde uygulanan maliyet kontrol sistemlerinin tespitine yönelik bir araştırma: Gaziantep örneği. *Akademik Bakış Dergisi*, 36 (3), pp. 1–16.
- Aktaş, A. (2001). Konaklama hizmet işletmelerinde yiyecek-içecek yönetimi. Ankara: Detay Yayınları.
- Akyürek, S., & Kızılcık, O. (2018). Restoran işletmelerinde maliyet kontrolü üzerine Trabzon ilinde bir araştırma. *Karadeniz Uluslararası Bilimsel Dergi*, 38(38), pp. 132–151. <https://doi.org/10.17498/kdeniz.342296>.
- Alp, Ö., & Şen, S. (2021). Eğitim Yönetimi ve Denetimi Alanında Yazılan Lisansüstü Nicel Tezlerin İncelenmesi: Bir Sistematik Derleme. *Türk Eğitim Bilimleri Dergisi*, 19(1), pp. 24–53. <https://doi.org/10.37217/tebd.774591>.
- Anasız, İ. (2019). Otel işletmelerinde yiyecek-içecek maliyet kontrolü için israfi azaltacak farklı bir uygulama önerisi "hedef maliyetleme". *Kapadokya Akademik Bakış*, 2(2), pp. 179–214.
- Ataç, İ., Yüksel, S., Dursun, İ. E., Özgenel, M. (2022). Türkiye’de öğretmenlerin örgütsel mutluluğu konulu lisansüstü tezlerin analizi (2000-2021): Bir sistematik derleme çalışması. *EKEV Akademi Dergisi* (92), pp. 297-313. <https://doi.org/10.17753/sosekev.1107608>
- Atmaca, M., & Yılmaz, B. B. (2011). Konaklama işletmelerinin faaliyetlerinde maliyet kontrolünün etkileri: Marmara Bölgesinde faaliyet gösteren beş yıldızlı oteller üzerine bir araştırma. *Financial Analysis/Mali Cozum Dergisi*, (108), pp. 15–34.
- Bayram, Ü. (2023). Sürdürülebilir gastronomi turizmi: Bir sistematik literatür taraması. *Journal of Gastronomy, Hospitality and Travel*, 6(1), pp. 74–82. <https://doi.org/10.33083/joghat.2023.248>.
- Boon, C., Den Hartog, D. N., & Lepak, D. P. (2019). A systematic review of human resource management systems and their measurement. *Journal of Management*, 45(6), pp. 2498–2537. <https://doi.org/10.1177/0149206318818718>.
- Boroğlu, A. (2016). İçecek maliyet kontrolü. In N. Ayaz & B. Akay (Eds.), *Turizm işletmelerinde maliyet kontrolü: Temel kavramlar* (pp. 73–89). Ankara: Detay Publishing.
- Bronson, D. E., & Davis, T. S. (2011). *Finding and evaluating evidences systematic reviews, and evidence-based practice*. Oxford University Press. doi:10.1093/acprof:oso/9780195337365.001.0001.
- Bulut, H. (2014). 4 ve 5 yıldızlı otellerde yiyecek-içecek maliyet kontrol sistemi: Ankara ili örneği, Unpublished Master's Thesis, Atılım University, Ankara, Türkiye.
- Burns, N., & Grove, S. K. (2007). *Understanding nursing research: Building an evidence-based practice*. (4th ed., pp. 134–163). China: Saunders.
- Büyükmirza, H. K. (2021). *Maliyet ve yönetim muhasebesi: tekdüzen'e uygun bir sistem yaklaşımı* (24. Baskı). Ankara: Gazi Kitabevi.
- Büyükkalvarcı, A. ve Şener, G. (2019). Uluslararası beş yıldızlı zincir otel işletmelerinin yiyecek ve içecek bölümünde maliyet kontrolü uygulamaları ve Ankara ili örneği. *Journal of Social and Humanities Sciences Research*, 6(47), pp. 4187–4197.

- Cengiz, E., Cengiz, F., Demirçiftçi, T., & Çobanoğlu, C. (2018). Do food and beverage cost-control measures increase hotel performance? A case study in İstanbul, Turkey. *Journal of Foodservice Business Research*, 21(6), pp. 610–627.
- Chand, M. ve Kapoor, B. (2014). A comparative study of food and beverage service practices in India chain hotels and resorts. *International Journal of Hospitality and Tourism Systems*, 7(1), pp. 49–58.
- Cooper, H., Hedges, L. V., & Valentine, J. C. (2019). Research synthesis as a scientific process. In H. Cooper, L. V. Hedges, and J. C. Valentine (Eds.). *The handbook of research synthesis and meta-analysis* (3rd Edition, pp. 3–18). New York: Russell Sage Foundation.
- Çam, M. (2009). Konaklama işletmelerinde yiyecek-içecek maliyet kontrolünün önemi ve Akdeniz Bölgesindeki konaklama işletmelerinde bir anket çalışması. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 6(11), pp. 501–522.
- Çetiner, E. (2009). Otel işletmelerinde yönetim muhasebesi. Ankara: Gazi Kitabevi.
- Çınar, N. (2021). İyi Bir Sistematik Derleme Nasıl Yazılmalı? *Online Türk Sağlık Bilimleri Dergisi*, 6(2), pp. 310–314. <https://doi.org/10.26453/otjhs.888569>.
- Çiftci, Y., & Köroğlu, Ç. (2008). Otel işletmelerinde yiyecek-içecek maliyet kontrol yöntemlerinin incelenmesi Marmaris ilçesi örneği. *Manas Üniversitesi Sosyal Bilimler Dergisi*, 10(19), 33-42.
- Dickson, R., Cherry, M. G., & Boland, A. (2014). Carrying out a systematic review as a master's thesis. In Dickson, R., Cherry, M. G. & Boland, A. (Eds.), *Doing a systematic review: A student's guide* (pp. 1–16). London: SAGE Publications.
- Dimitrantzou, C., Psomas, E., & Vouzas, F. (2024). The influence of competitive strategy and organizational structure on the cost of quality in food and beverage (F&B) companies. *The TQM Journal*, 36(8), pp. 2398–2417.
- Dittmer, P. R., & J. D. Keefe. (2005). *Principles of food, beverage and labor cost controls* (8th edition). New Jersey: Wiley.
- Dopson, L. R., & Hayes, D. K. (2016). *Food and beverage cost control*. John Wiley & Sons.
- Dönmez, A., Arıcı, A. & Angay Kutluk, F. (2011). Antalya'daki beş yıldızlı konaklama işletmelerinde yiyecek-içecek maliyet kontrolü ve fiyatlama uygulamaları üzerine bir araştırma. *Uluslararası Alanya İşletme Fakültesi Dergisi*, 3(1), pp. 201–222.
- Dülgaroğlu, O. (2023). *Yiyecek-içecek işletmelerinde maliyet kontrolü (cost control) ve yönetimi*. In H. Çiftçi & K. Kaya (Eds.) *Sosyal bilimlerde seçme konular*. Ankara: İKSAD Yayınları.
- Erdinç, S. B. (2009). Konaklama işletmelerinde yiyecek-içecek maliyet analizi. *Süleyman Demirel Üniversitesi İktisadi Ve İdari Bilimler Fakültesi Dergisi*, 14(1), pp. 313–330.
- Fisch, C., & Block, J. H. (2018). Six tips for your (systematic) literature review in business and management research. *Management Review Quarterly*, 68(2), pp. 103–106. DOI: 10.1007/s11301-018-0142-x.
- Gomezelj, D. O. (2016). A systematic review of research on innovation in hospitality and tourism. *International Journal of Contemporary Hospitality Management*, 28(3), pp. 516–558. <https://doi.org/10.1108/IJCHM-10-2014-0510>.
- Gough, D., Thomas, J., & Oliver, S. (2012). Clarifying differences between review designs and methods. *Systematic reviews*, 1, pp. 1–9.
- Gönen, S., & Ergun, Ü. (2008). Otel işletmelerinin yiyecek içecek bölümünde iç kontrol sisteminin etkinliğinin değerlendirilmesine yönelik bir uygulama. *Ege Academic Review*, 8(1), pp. 183–204.
- Hong QN, Pluye P, Fàbregues S, Bartlett G, Boardman F, Cargo M, Dagenais P, Gagnon M-P, Griffiths F, Nicolau B, O'Cathain A, Rousseau M-C, Vedel I. Mixed Methods Appraisal Tool (MMAT), version 2018. Registration of Copyright (#1148552), Canadian Intellectual Property Office, Industry Canada.
- Hussey, P. S., De Vries, H., Romley, J., Wang, M. C., Chen, S. S., Shekelle, P. G. etc. (2009). A systematic review of health care efficiency measures. *Health Services Research*, 44(3), pp. 784–805. <https://doi.org/10.1111/j.1475-6773.2008.00942.x>.

- Işık, I. & Yılmaz, B. B. (2016). Konaklama işletmelerinde yiyecek içecek maliyet kontrolü: Bir otel işletmesinin yiyecek içecek maliyet kontrol yöntemleri üzerine inceleme. *Journal of Entrepreneurship & Development/Girişimcilik ve Kalkınma Dergisi*, 11(1), pp. 60–83.
- Kahya, M. (2004). Otel işletmelerinde yiyecek maliyet kontrolü ve otel işletmesinde bir uygulama. Unpublished Master's Thesis, Niğde University, Niğde, Türkiye.
- Karaçam, Z. (2013). Sistematik derleme metodolojisi: Sistematik derleme hazırlamak için bir rehber. *Dokuz Eylül Üniversitesi Hemşirelik Fakültesi Elektronik Dergisi*, 6(1), pp. 26–33.
- Köroğlu, Ç. (2007). Otel işletmelerinde yiyecek-içecek maliyet kontrolü ve basit maliyet kontrol yöntemine ilişkin bir uygulama. *Mevzuat Dergisi*, 10(116).
- Köroğlu, Ç., Biçici, F. & Sezer, D. (2011). Otel işletmelerinde maliyet kontrolünün rekabet üstünlüğüne etkisi. *İşletme Araştırmaları Dergisi*, 3(1), pp. 33–48.
- Kutlan, S. (1998). Maliyet kontrolü (cost controlling) ve 5 yıldızlı konaklama işletmelerinde uygulama. İstanbul: Alfa Yayınları.
- Kutluk, F. A. (2003). Konaklama işletmelerinde maliyet ve yönetim muhasebesi sorunları ve çözüm önerileri, Unpublished Master's Thesis, Akdeniz University, Antalya, Türkiye.
- Miller, J. E., Dopson, L. R., & Hayes, D. K. (2005). *Food and beverage cost control* (3rd Edition). New Jersey: John Wiley & Sons.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of Internal Medicine*, 151(4), pp. 264–269.
- Montenegro-Rueda, M., Fernández-Cerero, J., Fernández-Batanero, J. M., & López-Meneses, E. (2023). Impact of the implementation of ChatGPT in education: A systematic review. *Computers*, 12(8), pp. 153. <https://doi.org/10.3390/computers12080153>.
- Ninemeier, J. D. (2000). *Management of food and beverage operations* (3rd Edition). Lansing, Michigan: Educational Institute of American Hotel and Motel Association.
- Ojugo, C. (2010). *Practical food & beverage cost control* (ikinci Baskı). Delmar, NewYork.
- Okutmuş, E. & Gövce, G. (2015). Yiyecek işletmelerinin maliyet kontrolünde standart reçetelerin karşılaştırmalı olarak incelenmesi ve bir uygulama. *Niğde Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 8(2), pp. 79–90.
- Özbirecikli, M., & Güven, G. (2016). Lokantalarda kullanılan maliyet hesaplama yöntemleri üzerine bir araştırma: Antakya örneği. *Journal of Accounting Science World*, 18(4), pp. 797–823.
- Özdoğan, O. N. (2010). Maliyet kontrolü. In M. Sarıışık, Ş. Çavuş, & K. Karamustafa (Eds.), Profesyonel restoran yönetimi: ilkeler, uygulamalar, ve örnek olaylar (pp. 255–283). Ankara: Detay Yayınları.
- Patole, S. (Ed.). (2021). *Principles and practice of systematic reviews and meta-analysis*. Cham: Springer International Publishing. doi:10.1007/978-3-030-71921-0.
- Porta, M. S., Greenland, S., Hernán, M., dos Santos Silva, I., Last, J. M. (2014). *A dictionary of epidemiology*. New York: Oxford University Press.
- Pradiptha, I. W. A., Darlina, L., & Elistyawati, I. A. (2018). Analysis of food cost control at The One Legian Hotel. *Journal of Applied Sciences in Travel and Hospitality*, 1(2), pp. 188.
- PRISMA-P (2020). Prisma statement. Available at: <https://www.prisma-statement.org/prisma-2020> (accessed 01 March 2024).
- Rachão, S., Breda, Z., Fernandes, C., & Joukes, V. (2019). Food tourism and regional development: A systematic literature review. *European Journal of Tourism Research*, 21(1), pp. 33–49.
- Reed, J. ve Baxter, P. (2009). Using reference databases. H. Cooper, L. Hedges ve J. Valentine (Ed.), *The handbook of research synthesis and meta-analysis* (pp. 51–71). New York: Russell Sage Foundation.
- Rızaoğlu, B., & Hançer, M. (2005). *Menü ve yönetim*. Ankara: Detay Yayınları.

- Richardson, W.S., Wilson, M.C., Nishikawa, J., & Hayward, R.S.A. (1995). *The well-built clinical question: A key to evidence-based decisions*. ACP Journal Club. 1995; 123: A12-13. doi:10.7326/ACPJC1995-123-3-A12 10.
- Rosin, M., Mackay, S., Gerritsen, S., Te Morenga, L., Terry, G., & Ni Mhurchu, C. (2024). Barriers and facilitators to implementation of healthy food and drink policies in public sector workplaces: a systematic literature review. *Nutrition reviews*, 82(4), pp. 503–535. <https://doi.org/10.1093/nutrit/nuad062>.
- Sancar, M. F. (2016). Yiyecek maliyet kontrolü. In N. Ayaz & B. Akay (Eds.), *Turizm İşletmelerinde Maliyetler ve Kontrolü* (pp. 43–72). Ankara: Detay Publishing.
- Sánchez González, L., García Rubio, F., Ruiz González, F., & Piattini Velthuis, M. (2010). Measurement in business processes: a systematic review. *Business Process Management Journal*, 16(1), pp. 114–134. <https://doi.org/10.1108/14637151011017976>.
- Schardt C, Adams MB, Owens T, Keitz S, Fontelo P. Utilization of the PICO framework to improve searching PubMed for clinical questions. *BMC Medical Informatics and Decision Making*. 2007; 7:16. doi:10.1186/14726947-7-16.
- Schmidgall, R. S., & Damitio, J. W. (1996). *Basic financial accounting for the hospitality industry*. New York: Educational Institute of the American Hotel & Motel Association.
- Suklabaidya, P. & Singh, A. (2017). Hotel revenue management: Impact of familiarity and information on customer's perceptions of fairness. *International Journal of Hospitality and Tourism Systems*, 10(1), pp. 34–44.
- Tandoğan, U. & Şahin, Ö. (2014). Yiyecek-içecek işletmelerinde standart reçetelerin ve hedef maliyetlemenin stratejik kararlarda kullanılmasına yönelik bir uygulama. *Niğde Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 7(1), pp. 242–259.
- Taşkın, E. (1997). Otel işletmelerinde yiyecek maliyetlerinin kontrolü ve azaltılması, Unpublished Doctoral Thesis, Balıkesir University, Balıkesir, Türkiye.
- Tiana Adelia, N. P. D., Saputra, M. D., & Nurhayanti, K. (2022). Budget analysis as a food and beverage cost control tool at The Westin Resort Nusa Dua Bali. *Repository Politeknik Negeri Bali*. Available at: <https://repository.pnb.ac.id>. (accessed: 04 July 2024).
- Tiftik, C. (2022). Sağlık sektörü işletmelerinde sürdürülebilirlik: Sistematik derleme çalışması. *Düzce Üniversitesi Sosyal Bilimler Dergisi*, 12(1), pp. 404–426. <https://doi.org/10.55179/dusbed.998422>.
- Uçma Uysal, T. (2015). Yiyecek-içecek hizmeti veren konaklama işletmelerinde maliyet kontrol sistemlerinin etkinliği açısından iç kontrol. *Journal of Accounting and Taxation Practices*, 8(1), pp. 53–65.
- Uçuk, C. (2023). Sinestetik yemek: Gastronomi ve sinestezi ilişkisi üzerine sistematik derleme ve meta-analiz. *Journal of Tourism Research Institute*, 4(1), pp. 1–16.
- Üner, T. (2021). COVID-19 döneminde turizm yazınında rekreasyon çalışmalarının sistematik derleme yöntemi ile incelenmesi. *International Journal of Contemporary Tourism Research*, 5, pp. 178–189.
- White, H. (2009). Scientific Communication and Literature Retrieval. H. Cooper, L. Hedges and J. Valentine (Ed.), *The handbook of research synthesis and meta-analysis* (s. 51–71). New York: Russell Sage Foundation.
- Ye, B. H., Ye, H., & Law, R. (2020). Systematic review of smart tourism research. *Sustainability*, 12(8), pp. 3401. <https://doi.org/10.3390/su12083401>.
- Yıldırğan, M. S., & Batman, O. (2023). “Müslüman dostu turizm” konulu çalışmaların sistematik derleme ile incelenmesi. *Helal ve Etik Araştırmalar Dergisi*, 5(2), pp. 50–61. <https://doi.org/10.51973/head.1316092>.
- Yılmaz, Y. (2005). Konaklama işletmelerinde yiyecek-içecek maliyet kontrolü: Maliyet ve satışların analizi. Ankara: Detay Yayınları.
- Yılmaz, Y. (2007). *Yiyecek ve içecek maliyet kontrolü*. Ankara: Detay Yayınları.
- Yong, R. Y. M., Chua, B. L., Han, H., & Kim, B. (2022). Taste your way across the globe: a systematic review of gastronomy tourism literature (2000-2021). *Journal of Travel & Tourism Marketing*, 39(7–9), pp. 623–650. <https://doi.org/10.1080/10548408.2023.2184445>.

- Zainol, N. A., Ahmad, R., Rashid Radha, J. Z. R. R., & Ideris, M. S. K. (2017). Examining food wastage, cash handling and cost control practices: The case of food and beverage outlets in Malaysia. *International Journal of Business and Management*, 1(2), pp. 182–188.
- Zuhur, Ş., & Özpancar, N. (2017). Türkiye'de kronik hastalık yönetiminde hemşirelik modellerinin kullanımı: Sistemik derleme. *Hemşirelikte Araştırma Geliştirme Dergisi*, 19(2), pp. 57–74.



Şeyma Çakır

ORCID: 0000-0002-4034-5105

CONTACT DETAILS

s_cakir@anadolu.edu.tr

Anadolu University, Institute of Graduate Studies,
Department of Tourism Management PhD Program
Eskisehir, Türkiye

BIOGRAPHY

Şeyma ÇAKIR is a doctoral student in the Department of Tourism Management at Anadolu University. She received her Master's degree from Karabük University, Institute of Social Sciences, Department of Tourism Management. She is currently researching contemporary cost methods, cost control, and sustainability in tourism and food and beverage businesses.



Merve Özgür Göde

ORCID: 0000-0002-7315-4284

CONTACT DETAILS

merveozgurgode@anadolu.edu.tr

Anadolu University, Faculty of Tourism,
Eskisehir, Türkiye

BIOGRAPHY

Merve ÖZGÜR GÖDE is an Associate Professor in the Department of Gastronomy and Culinary Arts, Anadolu University. She received her Master's degree and Doctorate from the Institute of Social Sciences at Anadolu University, Department of Tourism Management. She is currently studying cost control in the food and beverage industry, as well as gastronomy, sustainability, and food and beverage marketing.