## Review Article

# A review of literature on restaurant menus: Specifying the managerial issues 

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#### Abstract

This conceptual study specifically aims at reviewing the critical managerial issues of menu, and demonstrating the conceptual structure of menu management. Based on the conceptual and empirical findings of menu literature, the major menu management issues are menu planning, menu pricing, menu designing, menu operating and menu development. Additionally, the paper makes a discussion on the conceptual relations between menu and meal experience. Given the scarcity of research that incorporates evidences and concepts of previous studies in one single study, the conceptual structure of menu management presented in this paper allows a comprehensive understanding of menu and forms a theoretical basis for future research.


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## Introduction

Menu maintains its dominant position in restaurant firms, since it is the core of food and beverage operations. Specifically, menu is an instructor that clearly dictates (i) what will be produced, (ii) what type of equipment and ingredients are needed, and (iii) which qualifications employees should have. Menu also functions as a communicating and selling tool
(Kincaid and Corsun, 2003). More specifically, it communicates not only the food and beverage offerings, but also the image of the firm. Furthermore, menu is a base on which the customers make their food choices and a well designed menu can direct customers' attention to the items the firm wants to sell more (Antun and Gustafson, 2005).

The critical qualifications attributed to menu describe its importance to restaurant operations and customer experiences. In fact, in contemporary understandings of menu, it has material and immaterial meanings. Materially, menu is a list or a card which documents the food and beverage options being offered by a restaurant. Immaterial meanings of menu highlight that it is a medium that affects customers' perceptions of restaurant experience (Wansink et al., 2005), and it is also an element of restaurant management that requires conducting critical managerial activities such as planning, pricing, designing and analyzing (Jones and Mifli, 2001). It also differs from the main product of a restaurant. Prior research (Johns and Kivela, 2001; Gustafsson, 2004; Hansen et al., 2005) claim that the primary product of restaurants is meal experience and it is constituted by many components such as food and beverages, atmosphere, social factors and management. What customers receive from consumption in restaurants is their memories and overall perceptions of meal experience, and menu is part of that experience and has associations with customers' perceptions. Consequently, menu cannot be considered as the overall product of a restaurant but it is an important component complementing atmosphere, interactions with servers and other customers, and managerial systems which are jointly available in a restaurant where a good, memorable meal experience is the main product.

Since it is a key factor in attracting and satisfying customers and effecting performance of restaurant firms, menu has been gaining a considerable academic attention from researchers. The previous studies on menu constitute a substantial body of literature and they primarily examined the issues including menu planning, menu pricing, menu designing, and menu analysis. For instance, Kivela (2003) investigated menu planning through employing an experimental research design and proposed a menu item selection framework. Menu pricing was examined by several authors from a range of perspectives including the price perceptions of customers (Shoemaker, 1994; Iglesias and Guillen, 2002), price sensitivity, pricing methods (Kelly et al., 1994; Raab et al., 2009; Kelly et al., 2009), and psychological pricing (Carmin and Norkus, 1990; Naipaul and Parsa, 2001; Parsa and Hu, 2004). Menu designing has also gained a particular attention from menu researchers who have particularly focused on positioning the menu item on the menu card (Bowen and Morris, 1995; Kincaid and Corsun, 2003; Reynolds et al., 2005), labeling (Lockyer, 2006; Wansink et al., 2001) and describing menu items (McCall and Lynn, 2008; Hwang and Lorenzon, 2008). In the field of menu analysis, researchers have offered several models such as menu engineering (Kasavana and Smith, 1982), analysis of menu items' profitability (Hayes and Huffman, 1985), and more recently multi-dimensional analysis of menu items (Taylor and Brown, 2007). From a
practical perspective, menu is directly related to many functions of food and beverage operations and also absorbs a wide range of interrelated managerial decisions in the areas of planning, pricing, designing, operating, and developing menus.

Despite the growing academic attention to restaurant menus, previous research has a certain drawback. Principally, there is an apparent lack of an attempt at incorporating the major thoughts and ideas of menu research into one single study. Given the above background, this conceptual study presents a review of relevant literature to frame the current discussion on menu with an attempt to identify critical managerial issues. Thus, the specific objectives of the current study are (i) to identify the critical managerial issues of menu, and (ii) to demonstrate the conceptual structure of menu management. As the menu is a key to influencing success of firms in foodservice industries, this study could assist restaurateurs in understanding the role of menu in their managerial decisions. From an academic perspective, this paper presents a holistic framework for menu researchers since it incorporates the conceptual and empirical findings of previous menu research into one single study.

## Literature review

## Theoretical underpinnings

The perspectives of organizational, marketing and strategic management theories provide a reliable theoretical groundwork to understand the important managerial aspects of menu. For instance, organization theory explicitly emphasizes the influence of external environment both on the decisions of firm managers and the survival of firms on the long run. More specifically, external environment is one of the central themes of organization theory and the relevant studies (Duncan, 1972; Jurkovich, 1974; Dess and Beard, 1984; Ashill and Jobber, 1999) primarily propose that managers essentially consider the influential external factors that create uncertainty, diversity and volatility while making their decisions. Planning and operating menus in a restaurant context involve considering external factors such as customers, rivals, and vendors that have a great potential in creating uncertainty, diversity and volatility in the restaurants' immediate business environment. Complementing this view, marketing theory recognizes the importance of identifying the needs and expectations of customers, and developing and improving products and service perfectly fit to those needs and expectations. Additionally, pricing, promoting and distributing the products and services should also be consistent with the customers' needs and expectations on the one hand, and with the firm's objectives on the other hand. Thus, in the restaurant context, it is imperative that menu as the food and beverage combinations offered by a restaurant reflects the expectations and needs of customers. Moreover, managing menus involves planning, pricing, designing, distributing and promotional decisions which are also the main issues of marketing.

Strategic management is another promising theoretical perspective that helps us understand the importance of menu
and its associated managerial activities with reference to competitiveness of restaurants. Indeed, creating and sustaining a competitive advantage is the main focus of strategic management discipline. More specifically, strategic management principally investigates the phenomenon of sustainable competitive advantage as a source of performance differences among business firms (Nerur et al., 2008). Following this argument, it is plausible to consider the role of menu in creating sustainable competitive advantage for restaurants. In particular, offering a unique meal experience and assuring customer satisfaction are the main sources of competitive advantage for a restaurant. As one of the important components of meal experience, menu deserves a special attention to understand how a restaurant firm can achieve its strategic goals, can create a sustainable competitive advantage, can satisfy its customers and can outperform the rivals.

Strategic management literature currently encompasses a wide range of strategic management schools posing different strategy definitions and processes (Sarvan et al., 2003). As a result, there are various understandings of the meaning of strategy (Okumus, 2002). For example, Mintzberg et al. (1998) define 10 schools of strategic thinking as design, planning, positioning, entrepreneurial, cognitive, learning, power, cultural, environmental and configuration schools. Among the 10 strategy schools, positioning school provides a clear typology of strategy alternatives. For instance, Porter (1980) proposes well-known three generic strategies: low cost leadership, differentiation and focus strategies, those are also available for restaurant firms. When considered in a restaurant context, each strategic alternative has associated implications for menu. For example, if the strategy is low cost leadership, then decisions on planning, pricing and designing menu reflect the strategy through selecting low cost menu items, pricing menu items at a lower price than rivals, and attractively presenting menu items with low prices on menu card, which probably result in customers' perceptions of a satisfactory meal experience with a reasonable quality. Conversely, when a differentiation strategy is chosen, a restaurant manager is expected to be attentive to (i) selecting or innovating unique menu items, (ii) setting higher prices with an expectation that customers are willing to pay premium for a differentiated product, and (iii) heavily concentrating on attractively presenting unique items on menu card to create a positive image of a unique meal experience. Thus, all managerial decisions with reference to planning, pricing and designing menus are the reflections of the chosen strategy such as low cost leadership or differentiation.

## Menu management issues

Menu management is a relatively new concept which is not widely recognized by researchers or practitioners. Indeed, in the relevant literature very few studies have used the concept without providing a certain definition of it. Thus, the major aim of literature review in this section is to trace the variables investigated by menu researchers. The review purposely
restricted to the journal articles which were subjected to a rigorous academic judgment process before publishing.

The previous research includes empirical and conceptual studies examining various managerial aspects of menu. Table 1 demonstrates the examples of those studies and their variables. As seen in Table 1, there are different sets of variables corresponding to one or several of the menu management issues including menu planning, menu pricing, menu designing, and menu development. Indeed, among the articles referred in Table 1, the empirical study of Jones and Mifli (2001), which also forms the conceptual base for the current study, jointly investigates planning, designing, developing, pricing and analyzing issues in seven hospitality firms. Jones and Mifli (2001: 61-62) relate menu planning to identifying the product range of restaurant firm, and menu design to the creation of menu card. They define menu development as subsequent alteration of the planned menu. Finally, menu analysis is associated with a range of techniques and procedures employed in order to analyze the menu performance. The following section elaborates on menu management issues by drawing evidence from the menu literature.

## Menu planning

Recent studies on menu planning examine variables such as menu item selection process and criteria, menu changes and variety, and menu item innovation. Those studies primarily assume that menu planning is a critical managerial activity to the success of restaurant firms. In this regard, Kivela (2003) describes menu planning as a menu item selection process. After heavily criticizing the traditional approach to menu planning which mainly relies on executive chefs' gastronomic knowledge, he proposes a Menu Planning Qualitative Variables (MPQV) approach which considers gastronomic, financial, marketing and menu mechanics variables. Morrison (1997) and Kwong (2005) also share the idea that menu planning is a process of selecting menu items and their research reports empirical evidences that the criteria of menu item selection are based on the cost of raw materials, cost of labor, profitability of menu item, the skill level of staff needed, availability of ingredients, space and equipment requirements, and customer demand. A valid alternative to selecting menu items from an existing items' pool based on some predetermined criteria is to make menu item innovations. Recently, some researchers (Ottenbacher and Harrington, 2007,2009 ) have focused on innovation processes in restaurant kitchens. The studies of those researchers empirically demonstrate how chefs create new menu items relying on innovation processes that are generally encompassing the stages such as idea generation, screening, concept development and tests, commercialization, implementation and evaluation.

Glanz et al. (2007) emphasize that changing menu's content is also an important component of menu planning and their study reveals that the major criteria of menu changes are whether the new menu item will attract new customers or maintain the existing customer base, and how it will affect sales and profit. Furthermore, menu changes may lead to menu variety, and according to findings presented by Bernstein et al.

Table 1
Examples of articles investigating menu issues.

| Article | Main focus | Corresponding menu issue |
| :---: | :---: | :---: |
| Pavesic (1983) | Menu engineering model including weighted contribution margin and food cost percentage | Menu analyzing |
| Hayes and Huffman (1985) | Menu item profitability analysis and goal value analysis | Menu analyzing |
| Bayou and Bennett (1992) | Menu item profitability analysis based on analysis of market segments (four levels of profitability analysis) | Menu analyzing |
| Kelly et al. (1994) | The relationship between price elasticity and pricing | Menu pricing |
| Shoemaker (1994) | The effect of a decoy item on the price value perception of a menu | Menu pricing |
| Bowen and Morris (1995) | The relationship between menu item placement on the menu card and sales of menu items | Menu designing |
| LeBruto et al. (1995) | Menu engineering model including labor costs as a menu analysis method | Menu analyzing |
| Morrison (1997) | Development of menu engineering models and a study on upscale restaurants menu planning practices | Menu analyzing <br> Menu planning |
| Jones and Mifli (2001) | Menu planning, pricing, designing, analyzing and improving practices of seven hospitality firms | Menu planning <br> Menu pricing <br> Menu designing <br> Menu analyzing and improving |
| Naipaul and Parsa (2001) | The relationships between psychological pricing comprising odd and even number price endings, and value and quality perceptions of customers | Menu pricing |
| Wansink et al. (2001) | The relationship between descriptive menu item labels and customer perceptions | Menu designing |
| Iglesias and Guillen (2002) | Price perceptions of customers comprising monetary and non-monetary sacrifices | Menu pricing |
| Kincaid and Corsun (2003) | The relationship between the layout of menu item on menu card and item sales | Menu designing |
| Kivela (2003) | Menu planning approaches and menu item selection variables | Menu planning |
| DiPietro et al. (2004) | Consumer attitudes towards healthy menu items and investigation of sales trends in healthy menu items | Menu planning |
| Antun and Gustafson (2005) | Menu design characteristics and pricing strategies used by restaurants and clubs | Menu pricing <br> Menu designing |
| Kwong (2005) | Asian restaurants' practices of menu engineering and menu design | Menu analyzing <br> Menu designing |
| Cohen et al. (2006) | The menu item dependency and the effect of loss-leader pricing on menu items performances, and proposal of a multidimensional menu analysis technique | Menu analyzing |
| Lockyer (2006) | The relationships between the wording of menu items and customers' menu item choice | Menu designing |
| Taylor and Brown (2007) | A review of menu analysis literature including improvements to menu item performance | Menu analyzing and improvements |
| Ottenbacher and Harrington (2007) | The menu item innovation process in fine dining restaurants | Menu planning |
| Bernstein et al. (2008) | The relationship between menu variability and consumers' restaurant preferences | Menu planning |
| Hwang and Lorenzon (2008) | Relationships among nutrition labeling of menu items, consumer perceptions and menu pricing | Menu pricing Menu designing |
| McCall and Lynn (2008) | The relationship between the complexity of menu item descriptions and potential customers' evaluations | Menu designing |
| Raab et al. (2009) | Pricing approaches adopted by hospitality firms and price sensitivity measurement as a pricing method | Menu pricing |
| Taylor et al. (2009) | Proposal of data envelopment analysis as menu analysis technique | Menu analyzing |
| Ottenbacher and Harrington (2007) | The menu item innovation process in quick service restaurants | Menu planning |

(2008), consumers value variety in their menu choices. After analyzing the recent trends in food preferences of consumers, DiPietro et al. (2004) conclude that healthy food items are becoming an increasingly important part of restaurant menus even in quick service segment. With respect to the growing trend towards healthy food choices, menu planning becomes more complicated due to associated activities for searching, selecting or innovating the healthy menu options.

Menu planning researchers have contributed to establishing the conceptual structure of menu planning by introducing and exploring menu item selection, menu item innovation, menu
variety, menu change and menu content variables. It seems that research on menu planning largely holds management theories' perspective and highlights the effects of external (customer, rivals, vendors) and internal (cost structure, employees, equipment) factors on menu planning decisions of managers. Considering the findings and suggestions of the previous studies, it is possible to make an operational definition of menu planning. In this regard, menu planning refers to menu item selection and/or menu item innovation with a consideration of menu variety and menu change in order to generate a menu content of an optimum composition of food
and beverage offerings that are most likely to gratify both the customers' and restaurant firm's expectations.

## Menu pricing

Menu pricing is a quite popular topic among menu researchers and it seems that a wide range of variables such as price perceptions of customers, price sensitivity, price elasticity, pricing methods and specifically the psychological pricing have attracted their attention. For instance, Iglesias and Guillen (2002) specifically underline the importance of customers' perceptions of menu item prices and suggest that total price perception of customers consists of perceived monetary price and perceived non-monetary price. Additionally, they indicate that customers also consider reference price and compare it to the actual price of menu item when making purchase decisions. Specifically, to some extent the assessment of the price of a menu item is based on the prices of alternatives. In a restaurant setting, for example, the prices of decoy items on the menu card may act as reference prices (Shoemaker, 1994). Depending on the price sensitivity or price elasticity, customer demand to food and beverage offerings of a particular restaurant may change in response to an increase or decrease in the prices (Kelly et al., 1994; Raab et al., 2009). Moreover, presentation of price endings can affect customers' value or quality perceptions of associated menu items when they are exposed to psychological pricing methods (Naipaul and Parsa, 2001).

The researchers in the field of menu pricing install a marketing theory perspective into menu management through emphasizing the perceptions and expectations of customers. Following the conceptual background provided by previous research, menu pricing can be described as the formulation of menu item prices in response to both sales, cost and profit objectives of the firm, and perceptions and expectations of customers. Additionally, as suggested by the relevant literature, setting the menu item prices is a complicated task since it requires becoming attentive to complex effects of the interrelated factors such as customers' perceptions, price elasticity and psychological pricing.

## Мепи designing

Researchers suggest that menu designing comprises managerial decisions regarding design of menu card characteristics, position, label, and description of menu items on the menu display (card or board). More specifically, the previous research on menu design has associated the menu item's position, label and description with item sales and customers' perceptions.

Although there are theoretical explanations asserting that the menu card contains some sweet spots and a particular menu item placed on a sweet spot generates higher sales; the empirical evidences reported by Bowen and Morris (1995), Kincaid and Corsun (2003), Reynolds et al. (2005) do not support that assumption. However, recently Choi et al. (2010) and Yang (2012) report evidences that restaurant menus may consist of sweet spots where the first gazes of customers focus on. Some other researchers present empirical findings
that verify the association between an item's sales and its label and description. For instance, the findings of Wansink et al. (2001) and Lockyer (2006) evidence that labeling or wording of menu items' names significantly influences the customers' menu item choice and perceptions. More specifically, according to Wansink et al. (2005), evocative labels on a menu card attract customers' attention to specific items and positively affect their taste and value perceptions of those items. Additionally, the empirical study of McCall and Lynn (2008) demonstrate the importance of item descriptions on a menu card through the finding that the complexity of menu item descriptions positively affects the customers' evaluations. Shoemaker et al. (2005) present a similar finding and conclude that details provided in items' descriptions have a positive impact on customers' value perceptions. Alternatively, Hwang and Lorenzon (2008) advocate that nutritional information provided on the menu card can enhance the positive attitudes of customers by informing them about healthy options in the menu and further make them change their orders to healthy items. Menu design also relates to a variety of factors including background and text colors, texture, photos, fonts, the use of boxes, and menu size as characteristics of menu card (Reynolds et al., 2005) which also have considerable effects on customers' item choice as empirically supported by Guéguen et al. (2012) who found that pictures of sea on the menu card significantly increase the consumption of fish dishes.

The studies focusing on menu design seem to make considerable contribution to our understanding of menu management through clarifying the relationships between item sales and menu design variables. In this way, they introduce a merchandising approach to menu management and hold a marketing perspective which assists managers in attracting customer attention to particular menu items. Given the above background, menu design refers to designing menu card with respect to menu card characteristics, menu item layout, menu item descriptions and labels in order to create an attractive menu that not only provides information but also directs customers' attention to the items that the firm wants to sell more.

## Menu operating

Menu operating is essentially included in menu management issues despite the fact that it very rarely appears in Table 1. In fact, it is not possible to state that menu researchers have paid particular attention to operations of menu except Jones and Mifli (2001). However, the studies on subjects such as sales forecasting, budgeting, cost control, service failures, and food safety provides insightful contribution to our understanding of menu operating.

In particular, menu operating involves management of menu items' production and service processes. Thus, it is expected that restaurant managers frequently consider three key factors as quality, hygiene and cost while making decisions and taking actions of menu operating. Accordingly, standardizing production, minimizing service failures, assuring food safety, forecasting demand to menu items, making budgets and controlling costs become critical activities of operational management of menus.

These are also the major considerations of quality management approaches such as ISO: 9001 and ISO 22000 which are also adaptable to restaurant operations. When considered in the restaurant context, one of the main components of such a quality management system will be assurance of food quality and safety relying on standard production, minimum service failures, optimum demand and suitable cost structures; those are briefly explained below with reference to relevant literature.

In the production process of menu items, development and implementation of some standards such as standard yields, standard purchasing specifications, standard recipes and standard portions are useful tools for sustaining a quality level (Davis and Stone, 1998). As found by Jones and Mifli (2001), especially in the chain restaurants portion control, standard recipes, quality control, and standard specifications are integral components of menu operations.

Serving a meal in a restaurant (especially in a table service restaurant) is composed of several sequential service stages such as greeting and seating, order taking and delivery, consumption, and payment and exiting (Namkung et al., 2011). Inevitably, service failures may occur at any stage of service, and these failures may lead to negative customer perceptions. For example, customers may complain following a failure (Namkung et al., 2011). Service failures may also negatively affect the customers' satisfaction levels and their likelihood of returning (Namkung and Jang, 2010). Consequently, menu operating decisions of managers need to consider serving menu items properly without any delays or defects in order to minimize service failures at all service stages.

Restaurant customers are becoming increasingly concerned about possible risks stemming from unsafe food practices (Fatimah et al., 2011) and food safety is a critical restaurant selection attribute (Worsfold, 2006). Thus, in menu operating stage restaurant managers are challenged by an urgency to produce and serve safe food. In order to ensure food safety, restaurant managers need to recognize the potential biological, physical and chemical hazards and take preventive actions to minimize the occurrence of these hazards (Fatimah et al., 2011). However, restaurant industry frequently faces food safety problems that mainly occur due to unsafe food sources, inadequate cooking, improper food handling, improper storage temperatures, contaminated equipment and poor personal hygiene (Sanlier et al., 2010). As a solution to the current food safety problems, it is widely advised that restaurant firms should implement a food safety management system such as HACCP (Hazard Analysis and Critical Control Points) which consists of principles and practices that encompass all aspects of processing, preparing, handling and serving food in a completely safe way (Eves and Dervisi, 2005).

Sales forecasts have a key role in operational management of menu due to the perishable nature of food products. More specifically, an accurate prediction of demand to menu items ensures the smooth functioning of production and service without falling behind the demand, which may cause customer dissatisfaction, or exceeding the demand, which increases the costs (Ryu et al., 2003). Previous studies on sales forecasting
have documented the available forecasting methods such as simple moving average method, simple exponential smoothing method, time-series models, regression, and Delphi etc. (Green and Weaver, 2008). Some researchers suggest the use of those quantitative techniques rather than merely intuitive assessments of managers since naïve intuitive approaches produce less accurate forecasts than do quantitative techniques (Miller et al., 1991). Besides, Ryu et al. (2003) also highlight the importance of using simple and timesaving forecasting methods.

In menu operating, budgets and cost control systems assist restaurant managers in assuring that there is no serious deviation from profit and cost objectives of restaurant firm in the entire process of procurement, storage, production and service. Underlying this notion, research by Jones (2008) evidences that hospitality firms produce budgets for cost control and performance evaluation purposes. Loss of profit due to the poor controls is a common concern in hospitality settings (Borchgrevink and Ancill, 2003). As a result, restaurant managers consider and implement a cost control system which encompasses purchasing, storage, issuing, production and service stages. The major aim of such a system is to minimize potential loss because of shrinkage, spoilage, spillage, waste and theft. However, as stated by Vaughn et al. (2010), the cost control system of many restaurant firms is based solely on the control of food costs. As a result, the restaurant has no knowledge of ultimate cost of menu items. Alternatively, Vaughn et al. (2010) suggest the use of activity based costing method in order to accurately determine and control the cost of menu items.

Given the above explanations, menu operating refers to smooth operation of menu with assistance of sales forecasts, standards, food safety practices, budgets and cost control systems in order to minimize deviations from quality, hygiene and cost objectives of restaurant firms.

## Menu analysis

Researchers have particularly dealt with developing some quantitative models to analyze the performance of menu items. Additionally, some of them also proposed improvement strategies to eliminate the performance deficiencies of menu items. In the 1980s, early systematic menu analysis approaches based on matrixes were introduced by Miller (1980), Kasavana and Smith (1982) and Pavesic (1983). These matrix based models were criticized by subsequent studies and several weaknesses were noted (Taylor and Brown, 2007). Among them is the notion that indicator of menu items' profitability is only the contribution margin which is computed through subtracting food cost from selling price. Consequently, this approach does not include other variable and fix costs such as labor and energy. Paying special attention to this deficiency of matrix models, LeBruto et al. (1995) attempt to include labor costs into the menu engineering model. Moreover, Hayes and Huffman (1985) and Bayou and Bennett (1992), known as the developers of menu item profitability analysis, seek to identify profit of menu item by subtracting total cost from sales of the item. Recently, some multi-dimensional analysis
approaches were developed (Taylor and Brown, 2007). For instance, Cohen et al. (2006) propose a multi-dimensional menu analysis model employing five performance dimensions including food cost, popularity, sales price, contribution margin, and weighted contribution margin. More recently, Taylor et al. (2009) suggest that data envelopment analysis is a useful multidimensional technique to analyze menu item performance.

Taylor and Brown (2007), Jones and Mifli (2001) and Kwong (2005) provide information about possible improvement strategies for menu item performance enhancement. Indeed, subsequent to the analysis of menu is the implementation of suitable improvement strategies for performance deficiencies. According to the authors, promotion and reposition of menu item; modification of presentation, recipe, and price are strategies for increases in the sales volume. Recosting, repricing, and recipe modification are optional solutions to cost problems. High performer menu items may be left as they are and low performers may be eliminated.

Studies on menu analysis reveal that evaluation of menu performance is mainly based on the financial performance indicators such as cost, popularity, profit and price. Additionally, improvements are made in order to increase sales or decrease costs. Therefore, it is obvious that menu analysis is made with respect to restaurant firms' financial goals. Relying on the arguments in the relevant literature, menu development may be proposed as a two dimensional concept including menu analysis and improvements instead of menu analysis concept alone. In this sense, menu development refers to analyzing menu item performance and then taking corrective actions to improve the performance imperfections of menu items.

## Discussion

It becomes clear that prior menu research has offered major menu management issues such as menu planning, menu pricing, menu designing, menu operating, and menu development. Critically, these menu management issues are not independent but interrelated. The success of any decision made in relation to a particular menu management issue largely depends on the performance rendered in relation to other issues. Furthermore, menu management is not a static managerial activity, but it is an ongoing process. This process has at least two main objectives including (i) satisfying the customers, and (ii) achieving the goals of restaurant firm. As stated by Kincaid and Corsun (2003), the menu contributes to restaurant firm's performance through generating profit for the firm and providing value and satisfaction to the customer. In this regard, menu management is a comprehensive concept that refers to an ongoing process comprising planning, pricing, designing, operating and developing the menu of a restaurant firm. Table 2 summarizes the conceptual structure of menu management along with the relevant variables extracted from literature.

As seen in Table 2, planning, pricing, designing, operating, analyzing and improving menu include managerial decisions. Those decisions may have profound effects on customers' positive perceptions of the meal experience and their satisfaction with restaurant which further lead to a better performance of the restaurant firm. As meal experience is the primary product of restaurant firms (Johns and Kivela, 2001), then an assessment of associations between menu management issues and components of meal experience may contribute to our understanding of how menu might enhance the meal experience perceptions of customers.

Table 2
Conceptual structure of menu management.

| Management issue | Short description | Outcome | Relevant variables |
| :---: | :---: | :---: | :---: |
| Menu planning | Process of generating an optimal menu content | Menu content | Menu item selection criteria Menu changes and variety Menu item innovation |
| Menu pricing | Formulation of menu item prices | Menu item prices | Pricing methods <br> Price elasticity or sensitivity <br> Price perceptions of customers <br> Psychological pricing |
| Menu designing | Designing the menu display (menu card or board) | Menu display (menu card or board) | Menu card characteristics <br> Menu item layout <br> Menu item description <br> Menu item label |
| Menu operating | Developing and implementing standards and procedures regarding quality, hygiene and cost | Operations | Budgeting <br> Sales forecasting <br> Assuring food safety <br> Controlling costs <br> Standard recipes <br> Standard costs <br> Standard yields <br> Standard portions |
| Menu development | Analyzing performance of menu items and improving the performance imperfections | Menu items' performances and improvements | Analysis methods Improvement strategies |

A synthesis of existing literature (Gustafsson, 2004; Hansen et al., 2005) reveals that components of meal experience are restaurant interior and atmosphere, social meeting, food and beverages, company of other people, and management control system. Since food is one of the most influential restaurant selection attributes (Kivela, 1997) and a determinant of customer satisfaction and retention (Kivela et al., 2000), food and beverages constitute the core of meal experience (Gustafsson, 2004). As menu management determines what will be the combination of food and beverages and their prices, how they will be presented on the menu card, and how they will be produced and served, it is possible to assume that menu has primary implications for the core component of meal experience. For instance, a menu planning activity attentive to customer expectations assures that customers can receive what they expect in terms of menu content, menu variety and changes. Similarly, an efficient use of menu pricing approaches can affect the way customers perceive the meal experience. Certain practices of presenting price-endings and considering customers' price perceptions while establishing prices play a key role on how customers evaluate the menu items and restaurant itself. For instance, in quick service settings price endings with " 9 " may generate a sense of value while " 0 " in price-endings may create a sense of quality in full-service settings (Naipaul and Parsa, 2001). Moreover, differentiating the menu items and accordingly their prices from potential competitors' offerings through innovations in dishes (Ottenbacher and Harrington, 2009) may assist in forming the customers' perception of a unique meal experience without any reference to prices of rivals' products (Iglesias and Guillen, 2002).

Existing menu design research suggests that customers' purchasing behavior and value and quality assessments can also be influenced by menu item labeling and description (Yang et al., 2009). For instance, menu item labels which awake positive emotions of customers, and descriptions including nutritional information may enhance the meal experience perceptions of customers. Specifically, labels and descriptions of menu items may lead customer to have positive perceptions of taste, value, health and quality aspects of food (Shoemaker et al., 2005; Wansink et al., 2001, 2005). Additionally, a restaurant manager who wishes to ensure that customers have a unique meal experience may consider that the unique food and beverage offerings of the establishment are located on the menu card where they are most probably seen and frequently ordered (Choi et al., 2010). Moreover, physical characteristics of menu card such as background, colors, texture, photos, fonts, size etc. may be designed in combination with the other atmospherics of the restaurant (décor, lighting, layout, table settings, appearance of service staff etc.) in order to generate an overall appealing image as the restaurant atmospherics have a considerable effect on customers' perception of meal experience, and their satisfaction and retention (Ryu and Han, 2011).

Operational decisions and actions related to menu such as standardizing and offering a consistent quality, minimizing service failures, accurately predicting demand to menu items,
and assuring food safety are essential components of providing a prosperous meal experience. For instance, customers may be dissatisfied when their orders are delayed or cannot be served due to shortage of ingredients because of poor sales forecasting. Moreover, customers who are attentive to food safety issues may assess all visible cues such as cleanliness of utensils, serving temperature and personal hygiene of service staff in order to be certain the safety level of food and these assessments may influence their satisfaction with meal experience (Fatimah et al., 2011).

The management control system component of meal experience also deserves attention from menu management perspective. Sales, cost and profit are subjected to consideration in menu management. For instance, selecting menu items with reference to sales; cost and profit objectives of firm; increasing item sales with pricing and designing tactics; controlling the costs with assistance of sales forecasting, and budgeting and cost control systems are all related to management control system component of meal experience. Menu analysis also assists in management control system. As a periodical performance monitoring mechanism, menu analysis is undertaken in order to evaluate whether the menu management process is successful. Menu analysis requires recording and collecting menu items' performance data which are specific to the establishment and those data can be integrated into the restaurant's overall performance assessments. Menu analysis also contributes to enhancing the meal experience when it includes improvements in terms of making adjustments in menu planning, pricing, designing and operating in response to customers' expectations.

## Conclusion

Relying on the previous studies on menu, this study shows that the menu literature is constituted by five menu management issues comprising menu planning, menu pricing, menu designing, menu operating and menu development. Menu management concept, then, is defined as an ongoing process including menu management issues.

## Managerial implications

A review of menu research shows us that restaurant managers have to play diverse and inter-related roles in relation to menu management. In this sense, a restaurant manager should become a planner, a price setter, a designer, an operator and an analyst. On the one hand, these roles are diverse because each of them requires different tasks listed in Table 2 in this study. On the other hand, they are interrelated since each task should be accomplished in close relation to others. Thus, the challenging aspect of menu management is that managers essentially integrate the diversified and complex menu management issues and understand the interdependencies among them instead of treating each issue individually. In this way, managers may have an ability to use menu in enhancing the meal experience perceptions of customers and attaining the cost and profit objectives of restaurant firms.

As discussed in the current paper, menu may have a strong influence on customers' meal experience perceptions. The restaurants which aim to have a higher level of performance than their rivals essentially concentrate on creating a unique meal experience. Meal experience is a multi-component construct and restaurant managers need to find unique ways of combining the meal experience components and menu variables in order to provide a unique experience for their customers. Relying on the literature review presented above, it seems that one possible way to accomplish this is to treat menu management as a process consists of interconnected stages and following paragraphs include some major suggestions to managers explaining how to operate such a process.

Since, menu is a determinant of purchasing, receiving, storage, production and service requirements, a starting point for managers is to identify the current state of internal and external factors related to menu management. For instance, the equipment and staff portfolio of the firm in terms of qualitative and quantitative features should be overviewed because of the strong influence of menu on the equipment and staff requirements. The processes, cost structures, profit, sales and prices of rivals should be examined in order to assess and differentiate the firm's own offerings. Importantly, the needs and expectations of the existing and potential customers need to be captured and analyzed. Other environmental factors such as economical, social, political and legal issues and the possible changes in them should also be analyzed. In this regard, at the initial stage of menu management process there should be a situational analysis that comprises collecting and analyzing data related to external and internal variables such as customers, rivals, environmental factors, and the firm's capabilities. Consequently, the situational analysis stage forms a base which contains useful data to effectively perform the subsequent menu planning, pricing and designing stages of menu management process.

As stated by Reich (2002), a restaurant firm may have long term and short term objectives. The long term objectives comprise social responsibility, profitability, productivity, employee development, employee relations, competitive position and technology development. Short term objectives include increasing profitability, decreasing costs, increasing customer satisfaction, and increasing market share. Accordingly, it is reasonable to state that the menu management process should produce outcomes which are consistent with the long term and short term objectives of the restaurant firm. A review of the firm's long term and short term objectives provide insights to understand the expected outcomes of the menu management process. Thus, in the second stage following the situational analysis, managers should clearly identify the specific objectives of menu management process. The objectives specific to menu management are most likely to be the short term objectives such as profitability, cost levels, and customer satisfaction.

Menu planning, pricing and designing are interrelated issues. In order to accomplish the task of pricing, managers need to know the menu items, their contents and accordingly their costs. Similarly, menu designing requires knowing the
names, content and prices of menu items. Furthermore, managers should base their menu planning, pricing, and designing decisions on the outcomes of situational analysis and review of objectives.

Subsequent to planning, pricing and designing, the planned menu is put into production. Therefore, operating the planned menu requires adopting standard procedures in order to achieve the expected performance determined in the planning stage. The menu operation should also consist of sales forecasting, food safety, budgeting, and cost control. Then, the aim of operation stage is to guarantee that actual performance of menu is consistent with the expected performance.

Finally, menu development corresponds to strategic evaluation since it comprises analysis and improvements. Menu development allows managers to monitor and analyze the menu performance periodically and to make improvement decisions relying on the performance analysis. The improvement decisions may aid establishing a better alignment between the external environment and internal functioning of the firm which means a better strategic fit. In this way, menu development produces feedback to menu planning, pricing and designing. The feedback from menu development stage is also an indicator of deficiencies in the menu operation in terms of deviations from standard procedures. Moreover, the information provided by menu development may indicate to make some adjustments to the objectives of firm.

## Limitations and suggestions for future research

The conceptual structure of menu management presented in this study provides a tool for hospitality researchers to investigate the menu issues. Researchers can use this conceptual structure as an organizing tool in order to have an overall view of menu management concept and process. For instance, the relationships among menu management issues need to be examined through employing empirical research design. Theoretically, each step of menu management process is an essential preceding step for next steps. Additionally, the efficacy of each menu management issue positively relates to performance of menu management and overall performance of restaurant firm. However, these conceptual relationships need to be empirically investigated. Although this study has made an effort to conceptually understand the associations between menu management issues and meal experience, there is another need for empirical research investigating the use of menu in enhancing the meal experience. Consequently, some guiding propositions may be derived from the menu management process. First, menu management issues are interrelated. Second, the effectiveness of menu management issues is positively related to the menu performance. Third, the effective management of menu is positively related to the overall performance of restaurant firms. Finally, menu management issues influence the meal experience perceptions of customers.

This is a conceptual study attempting to identify conceptual structure of menu management. Therefore, the major limitation of the study is that it cannot present empirical evidences which are obtained through a specific research design. However, an
extensive literature review was conducted in order to reflect the theoretical and empirical insights from the relevant previous studies. Another limitation of the current paper is that the menu management process defined in this study is a general one and ignores the specific changes that may occur in different segments of restaurant industry. That is why an empirical research study which focuses on a comparative analysis of menu management issues in different segments of restaurant industry such as full service versus quick service is needed and such an empirical study will probably produce very useful findings that enhance our understanding of restaurant menus. Additionally, an interesting empirical investigation might be the exploration of differences in menu management issues depending on the different times of consumption such as management of lunch or dinner menus, business-day menus or seasonal menus. In fact, the time when the menu is consumed by customers probably requires different strategies, but because of the space constraints it was not possible to explain those strategies in the current paper. In conclusion, this study fills a gap in the menu literature through offering an integrative conceptual structure of menu management.

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