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## A Case study to examine the application of food cost theories in menu pricing and cost control management within a new restaurant operation

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**A CASE STUDY TO EXAMINE THE APPLICATION OF  
FOOD COST THEORIES IN MENU PRICING AND  
COST CONTROL MANAGEMENT WITHIN  
A NEW RESTAURANT OPERATION**

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**A professional paper submitted in partial fulfillment  
of the requirements for the**

**Master of Science Degree in Hotel Administration  
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Las Vegas has emerged as one of the most vibrant and exciting “food capitals” of the world. The Las Vegas Strip, a stretch of real estate a mere 1.7 miles in length, is home to hundreds of very upscale eateries owned and operated by some of the biggest and most prestigious names in the culinary industry. It is commendable that a majority of these operations acknowledge their roles as participants in the world’s largest foodservice laboratory and so freely open their doors to the academic community of UNLV for consultation, observation and investigation. It truly has been a unique opportunity and privilege to study foodservice operations within this dynamic environment and I shall always feel a debt of gratitude to each of the many properties that welcomed me into their kitchens, dining rooms and executive offices along the way.

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## CHAPTER ONE

### Introduction

Cost accounting principles regarding identification and allocation of direct raw material costs are widely endorsed as “best practices” for profit maximization throughout the food service industry. From its potential role in establishing menu prices to the need for constant monitoring in operations, food cost control is emphasized as a primary responsibility in managing back-of-the-house operations (Berberoglu, 1993; Dopson, 2008).

Investigation of this topic has indicated that a large number of operators are satisfied that their operations are supported by quality cost control procedures. Inquiry as to specific components of any reliable cost control system often reveals inadequacies that preclude meaningful control over food costs. These inadequacies have been echoed consistently by recent culinary graduates in reporting observations made upon entry to the workforce. Their common experience suggests that even the most basic components of any formal cost control system, standardized recipes and portion cost analysis in particular, are either woefully inadequate or nonexistent in routine management of back-of-the-house operations.

### Purpose

The purpose of this paper is to examine how a newly established restaurant developed menu prices and food cost control procedures.

### Objectives

The first objective of this paper is to analyze the pricing methodology chosen by management in developing the restaurant’s opening menu. As will be presented, there are a variety of recognized approaches to establishing menu prices. This analysis will identify strengths and benefits of the standard menu engineering models employed or, alternately, permit

documentation of, and management's justification for, deviations from the recognized approaches.

The second objective of the paper is to assess the adequacy and effectiveness of policies and procedures established for controlling the cost of food utilized in daily operations. "The concept of reasonable assurance (as applied to internal control procedures) rests on the premise that the costs of establishing control(s) . . . should not exceed their expected benefit" (Weygandt, Kieso, & Kimmel, 2008, p. 344). Accordingly, the level of control appropriate to any given activity is ultimately a matter of management's judgment and choice. The rationale supporting management's decisions in regard to food cost controls implemented will be an integral part of this assessment.

#### Justification

While strict food cost control procedures are evident among large national and multi-chain foodservice operators, little is known regarding the control systems employed by small, single-unit operations. Research of this topic is difficult to conduct due to the sensitive nature of data required and an understandable reluctance by operators to divulge proprietary financial information. Further complicating empirical research of the topic is the fact that "food cost management" has become such a widely chanted mantra throughout the industry that every operator outwardly professes to have exceptional controls in place – while secretly fearing potential embarrassment resulting from honest reporting on specifics of individual control system design, application, maintenance, and effectiveness.

The case study approach was selected for research of this topic to mitigate the negative effect of the confounding factors discussed above. The participant's willingness to provide unrestricted access to confidential operating data permits independent confirmation and analysis



of cost control systems in place. The opportunity to interview and probe executive management responsible for existing systems provides qualitative perspectives on factors important to the decision making process in a small operation. These factors support the conclusion that a case study approach is well-suited to research of this topic.

Finally, there is interest in measuring the impact and effect the recent downturn of the US economy has had on a newly established, independent restaurant. Industry sales are reported as down for 2008 by 4.4% from the previous year, with projected declines of an additional 1.2%, adjusted for inflation, during 2009 (National Restaurant Association, 2008). How these economic conditions have impacted the establishment's menu pricing strategy and altered perception of cost control procedures within the organization will also be investigated.

## CHAPTER TWO

### Introduction

Food products and the culinary labor associated with their fabrication for sale are considered “prime costs” for the foodservice industry (Spears & Gregoire, 2003). These cost components play critical roles in all recognized quantitative menu engineering (pricing) strategies, while the concept of managing the proper utilization of food products is the essence of food cost control. “In employing cost-control techniques and cost accounting techniques, a manager should remember that the purpose is to find out what the costs are, whether they are out of line (with the budget), and, if so, where they are out of line. Corrective action can then be taken” (Keiser & DeMicco, 2000, p. 42).

The “corrective action” mentioned by Keiser & DeMicco may be budgetary or operational, depending on the circumstances and particulars of the variance. Budgetary corrective actions are appropriate when fundamental errors of fact or flaws in assumptions are discovered to have caused unrealistic expectations for organizational performance. Operational corrective actions are appropriate when identified behaviors or conditions within the organization thwart achievement of otherwise realistic performance goals established through the budgetary process.

This budgetary vs. operational distinction is seen throughout the literature, depending on the focus of research interest.

### Menu Pricing Strategies

#### *Qualitative Pricing Strategies*

Numerous qualitative approaches to menu pricing are described in *Hospitality Management Accounting* (Jagels, 2007), and recognized or referenced throughout the literature

by many others (e.g., Drysdale, 2002; Keiser & DeMicco, 2000). Common usage of such pricing strategies throughout the industry is acknowledged by each of these authors and is attributed to the fact that these methods are both easy to implement and intuitively understood by all operators. These qualitative methods may be categorized as either market positioning or trial-and-error oriented.

Market positioning strategies establish a restaurant's menu prices based primarily on what competitors are charging for similar products, in an effort to position the operation's pricing below, equal to, or above the competition. The weakness in this approach is that it ignores profitability as a consideration in the price structure, assuming that all competitors are at least marginally profitable. These strategies further assume that product cost and quality, sales, operating expenses, and a multitude of other potential factors are essentially the same for all competitors in the market, which is rarely the case.

The "rule-of-thumb method" is closely related to the marketing positioning approach in that popularly referenced industry averages (menu price or food cost percentage) are used as the basis for establishing a restaurant's menu prices. The rationale for this method is that if such figures contribute sufficient revenue to cover expenses and profit for other foodservice operators, the same will hold true for any restaurant operation. Like the market positioning strategies, the "rule-of-thumb method" fails to recognize the important operational differences from one operator to another or the impact this uniqueness has on individual profitability of the many and varied members within the industry. To illustrate this point, while the National Restaurant Association and Deloitte (2006) report an industry average food and beverage cost percentage of 34% for full-service restaurants, detailed operating statistics for various segments of the industry

are reported based on medians and quartiles due to the extreme variability of data within the reporting samples.

Trial-and-error strategies focus on the operator's perception and interpretation of market performance and customer reaction to pricing. The "intuitive method" assumes that arbitrarily established menu prices are correct because customers are willing to pay them. This approach is often combined with the "trial-and-error" method, whereby initial prices are routinely adjusted upward and downward over time, in an effort to measure both customer reaction as well as the effect on sales and profit.

The above qualitative methods identified by Jagels (2007) were categorized as "No-Method Methods" by Drysdale (2002). Qualitative methods as a primary approach to menu pricing are discouraged as unnecessarily risky in that known relationships between revenue, expense and profit are ignored.

#### *Quantitative Pricing Strategies.*

Five dominant quantitative pricing strategies have been documented by Drysdale (2002) as The Factor Method, The Markup on Cost Method, The Gross Markup Method, The Ratio Method, and the Texas Restaurant Association (TRA) Method. While each strategy is somewhat unique in its approach, all four are based on sales and expense categories as reflected in the Statement of Profit and Loss (Income Statement) for a foodservice operation (see Hotel Association of New York (1996)).

Key to understanding the quantitative methods to be discussed is the definition of "contribution margin" as the difference between sales (menu) price and dollar food cost for a menu item. Appropriately labeled "Gross Profit" on the Income Statement, this number becomes "contribution margin" when expressed as a percentage of sales. Miller (2003) defines

contribution margin as representing “what remains after product cost is subtracted from an item’s selling price” (p. 582). Generally, this “what remains” dollar amount must be sufficient to cover payroll and all other expenses of the organization, while any remaining contribution above these expenses is recognized as profit.

Contribution margin may also be viewed from the bottom (profit) of the income statement, and computed upward toward Gross Profit. When payroll and operating expenses plus desired profit are known for an operation, the difference between projected revenue and the sum of these items is what’s available for allocation as food cost percentage. Both perspectives on this concept are utilized in the various quantitative approaches to menu pricing.

The Factor and Markup on Cost Methods are very similar in approach to menu pricing and both have a known (or desired) food cost percentage as a prerequisite for use. With the Markup on Cost Method, the dollar cost of a menu item is divided by the known (or desired) food cost percentage to obtain the appropriate menu price. Algebraically,  $\text{Menu Price (\$)} = \text{Food Cost (\$)} \div \text{Food Cost (\%)}$ . The Factor Method is the reciprocal of the Markup on Cost Method, in that the known (or desired) food cost percentage is first divided into 1.00 (100%), with the resulting “factor” then multiplied times the dollar food cost of the item to obtain its menu price. Algebraically,  $(1.00 \div \text{Food Cost (\%)}) (x) \text{ Food Cost (\$)} = \text{Menu Price (\$)}$ .

The Texas Restaurant Association (TRA) Method is identical to the Markup On Cost Method, except that the food cost percentage is derived by the alternate definition of contribution margin, from the bottom of the Income Statement upward. Under the TRA Method, the sum of non-food expenses plus profit, as a percentage, is subtracted from sales (100%), to determine allowable food cost percentage. Once food cost percentage is determined, the computations are identical to those described for the Markup On Cost Method.

The Factor, Markup on Cost, and TRA Methods are widely used throughout the industry and are highly effective for established operations with a known performance history that permits detailed analysis of operating expenses at varying levels of activity and accurate projection of customer counts and revenue trends. For a small, independent operator and a startup operation, sales projections are frequently little more than wishful thinking while accurate expense histories simply do not exist. It seems plausible that many of these businesses are attempting to employ the Factor or Markup on Cost Methods to their operations, yet must rely upon industry averages as best available information in doing so. Under such circumstances, the distinction between the qualitative rule-of-thumb method and the quantitative factor or markup methods tends to blur.

The Gross Markup Method relies upon accurate customer counts and known (or accurately projected) gross profit. Given this reliable information, it is possible to divide the required (desired) gross profit by the total number of customers, and add this amount to the cost of each food item in determining menu price. This approach is well suited to operations that provide full meals to dining guests, charge accordingly, and the gross profit figure may be allocated to the entire dining experience. Useful in institutional foodservice, buffets, and a small number of operations that offer table d'hôte and prix fixe menus, it becomes nearly impossible to allocate a fixed *per capita* gross profit dollar amount over a variety of individual menu items in situations where the guest enjoys absolute control over the components of (and revenue from) a meal, such as *a la carte* dining.

The Ratio Method computes gross profit generated per dollar of food cost incurred. The cost of food (1.00, as a percentage) is added to this result, and the total multiplied by the food cost of each menu item to obtain menu price. This method is as effective as any of the other

methods presented, assuming the gross profit and food costs are either based on known history or otherwise projected with a high degree of accuracy.

The strength of quantitative pricing methodologies is that they incorporate proven sales and expense relationships that determine net income for the operation. Accordingly, it is recommended that menu pricing be derived initially through quantitative methods, with results qualitatively evaluated within each particular market (Drysdale, 2002). This combination of evaluative approaches will ensure that menu offerings are both profitable to the organization and reasonably priced within the local competitive environment.

#### Food Cost and Managerial Control

Given the critical role ascribed to food cost in quantitative menu pricing strategies, it is imperative that food costs be diligently monitored and maintained in operations. When variances occur, action must be taken through management intervention. "Evaluation and intervention may lead to improving of operational procedures, eliminating nonfunctional procedures, and changing or eliminating goals" (Sanders & Hill, 2001, p. 15). This evaluation and intervention is the essence of cost control for back-of-the-house operations.

Variances in food costs are generally categorized by origin as either procurement and purchasing or fabrication and processing oriented. Procurement and purchasing variances encompass prices paid for commodities, adherence to product specifications, efficiency of order processing, as well as receipt and storage of food products. Fabrication and processing variances include waste and spoilage, improper portion control, errors in production methods and estimates, and theft (Ferguson & Selling, 1983).

Waste and spoilage are generally controlled by inventory management procedures while theft is typically addressed procedurally through a system of internal controls that diminish

opportunities for its occurrence (Feinstein & Stefanelli, 2002). Portion control and proper production methods are normally maintained through adoption of standard recipes and related recipe cost analyses for each menu item (Dopson, 2008; Gisslen, 2007; Keiser, 2000; Labensky, 2003).

### *The Standard Recipe*

The standard recipe provides a detailed listing of specific ingredients and their precise quantities used to produce a predetermined quality and yield of a particular food product. The recipe cost analysis lists quantities of food products utilized in the standard recipe with respective costs per unit to obtain total recipe production cost and individual cost per serving. The sum of per serving costs for all food items plated for a menu item is the theoretical food cost utilized in menu pricing decisions. This theoretical food cost is multiplied by the number of menu items sold, then compared to total dollar (inventory value) cost of food sold, to determine variances in budget vs. actual food cost for any given time period (Dopson, 2008).

Aside from their important function in establishing food cost control, the use of standardized recipes (a) establish criteria for uniform taste and quality, (b) provide predictable recipe yields to meet production demand, and (c) require less supervision and less trained help (Keiser & DeMicco, 2000).

Customers have the right to expect that menu items will have the same appearance, taste, smell and texture from one visit to the next. It may be argued that a restaurant's reputation and credibility with its customers rests on the ability to consistently replicate the same (or better) quality dining experience on each repeat visit. Standardized recipes facilitate this accomplishment for all menu items in that they clearly specify what grade or quality of ingredients are to be used in fabrication, establish the basic proportionality of all individual



ingredients in the formula, and provide precise instructions for the particular method(s) adopted by the restaurant in preparing the menu item for service. The unique character of menu offerings that restaurant's strive for in order to differentiate themselves from the competition demand that standardized recipes be custom written for every operation and strictly enforced with culinary staff.

As important as written standardized recipes are to an operation, the fact is that few standardized recipes are ever produced precisely as written due to normal variations in quantity demand from one day to the next. The standard recipe is routinely adjusted by an appropriate conversion factor that will meet daily yield requirements, while still maintaining proportionality of ingredients and consistency of taste, texture and appearance. Accurate estimate of yield requirements and adherence to these estimates not only reduces waste from production of excess product but also minimizes the potential impact of lost sales and customer disappointment due to insufficient numbers of menu items being available for sale.

When written with detailed instructions for preparation and scaling of ingredients and concise methods for assembly, cooking and service, standardized recipes communicate guidance on performance standards and expectations to culinary employees in performing routine duties and assignments. Properly constructed standardized recipes may be a great aid in training of new employees and minimize the need for constant supervision and corrective intervention with more tenured staff members.

There is no consensus on specific format for a standardized recipe, despite wide agreement on the information they must contain. New formats continue to appear, especially as kitchens continue to become more computer-friendly and software developed for culinary use

increases in popularity. A sample of a standardized recipe in one widely used format may be viewed in Appendix A.

### *Recipe Cost Analysis*

The purpose of recipe cost analysis is to accurately determine the price of producing a standardized recipe as written, as well as to determine the cost per serving of portion sizes referenced in the standardized recipe.

A proper cost analysis will list all standardized recipe ingredients and the respective quantity of each ingredient used. The unit of measure by which the product is sold and the price per unit should be listed for each ingredient, followed by the (converted) cost per unit specified in the standardized recipe. Whereas many ingredients suffer weight loss during preparation and/or cooking, a column for yield percentages should be included, when applicable, to indicate an adjustment was made to pricing from as purchased (AP) to edible portion (EP) yields for these ingredients. The final column for each ingredient will be the extended price, or total cost of the ingredient as used in the standardized recipe. The costs of all ingredients are summed to obtain the total cost of producing the entire standardized recipe. Computation of cost per serving is easily performed from total recipe cost, based on the number of servings the recipe yields.

The two types of product weight loss are inedible trim, as is common with peeling of fresh fruits and vegetables, and shrinkage, caused by evaporation during the cooking process, as is common in meat cookery. While yield/weight percentages for particular food products may be determined in any kitchen through repetitive recipe and yield testing, there are several excellent reference books available that provide accurate yield and weight equivalent measurements for most common recipe ingredients. The publications relied upon for costing purposes throughout

this research are *The Book of Yields* (Lynch, 2008) and *Chef's Book of Formulas, Yields, and Sizes* (Schmidt, 1996).

As noted with standardized recipes, there are numerous formats used for computation of portion costs. A sample of a widely used cost analysis format may be viewed in Appendix B.

#### *Utilization of Standardized Recipes and Cost Analyses*

Resistance to adopting standardized recipes and difficulties in maintaining recipe cost analyses is documented throughout the literature. Keiser (2000) notes the tendency of managers' preference "to do those things that interest them, ignoring other equally important tasks. Managers of foodservice operations may be fascinated by food production. But if they spend all their time with this one function, the operation is in for a hard time" (p. 72). Levinson (1973) mentions a position of "food and beverage controller", which assumes a large and sophisticated organizational structure that doesn't exist for the small, independent operator. Levinson further discusses problems associated with constant price changes of commodities and the fact that current costs are not always readily available. Chan (1998) notes similar problems on an international scale with "manual recipe-cost updating was generally slow in Chinese restaurants in clubs and hotels, with updates occurring an average of just every four months for clubs and six months for hotels."

It is acknowledged that creating standardized recipes and maintaining current recipe cost information may be considered a tedious task for many foodservice managers. Management should be cognizant of this administrative burden when evaluating or designing information systems that might facilitate and support these activities. Due to the relationship of standardized recipes and food cost analyses to food quality, menu pricing, budgetary control and profit management, they are functions necessary and vital to the financial success of the organization.

### Emerging topics

Exploration of activity-based costing together with traditional menu engineering techniques is currently being studied in an effort to trace operating costs to estimate menu item contribution margins more accurately (Raab & Mayer, 2007). While an interesting concept, it appears well beyond the reach of small independent operators and generally not applicable to parameters of this case study.

### Conclusion

There are well documented and widely accepted food cost based methods within the literature for the establishment of menu of prices and the monitoring of actual food cost efficiency within a foodservice operation. While potential problems and difficulties implementing this methodology common to all operators are referenced in the literature, there is a void in documenting the applicability, usefulness or benefit of many traditional control procedures to the small, independent operator. As this classification of operators comprise the majority of restaurant businesses in the foodservice industry, attempt to fill this void seems a worthy endeavor.

This case study will examine the food cost controls deemed necessary and appropriate by one independent operator during startup of a new restaurant operation. Motivations and justifications for decisions and choices made will be explored in an effort to understand the mindset and focus of an independent operator in regard to managerial control of back-of-the-house operations. Where ever possible, conventional theory will be applied to the operation in an effort to identify weakness in existing procedures and the potential cost and benefit of additional controls where appropriate.

## CHAPTER THREE

### Introduction

The participant for this study is an independently owned restaurant and full-service bar operation located in the suburbs of a mid-size metropolitan region with a population of more than one and one-half million people. Approximately 17 miles from the city center, the immediate vicinity is primarily residential, still under development yet destined for significant growth over the next two years, and currently under-served by many business categories. The property is situated in a new and predominantly vacant strip mall, including a bank, a payday loan company, a convenience grocery store and one fast-food operator as neighboring tenants.

The restaurant has 148 seats, with a maximum capacity of 180. Décor is very modern and minimalist, heavy on black furnishings with sleek chrome/stainless steel contrasts and accents throughout. Large digital color monitors throughout the facility contribute to the modern ambiance from music video displays throughout the restaurant and bar to visible point-of-sale (POS) order screens mounted at ceiling height above the exposition style kitchen. While appropriate to a wide variety of customers, including families, there is no subtlety in the décor being directed toward appeal to a target market that may be described as younger, sophisticated, hip, and professionally employed.

The concept of the restaurant was heavily influenced by the emergence and popularity of the Spanish tapas bars in many large cities throughout America. The menu is constructed to provide a multi-course, a la carte dining experience, with each course and the total number of courses determined by the customer(s) from a vast array of offerings. Accordingly, portions and prices are established such that each menu item may be shared as a small appetizer by up to three patrons in a party, or enjoyed as a more substantial component of a full meal by the individual

diner. While many classical tapas selections are featured on the menu, the restaurant prides itself on expansion of the cuisine to include offerings more global in nature as well as many items familiar to the traditional American dining palette – all served in the “many small bites” presentation that defines the tapas experience.

The business is organized as a privately-held corporation, is managed and operated by the primary shareholder who is also a professionally trained, highly creative, talented, and experienced chef. Credentials of the managing chef include an Associate of Applied Science degree in Culinary Arts, American Culinary Federation certification at the level of Certified Executive Chef (CEC), and eight years’ back-of-the-house management experience in fine dining restaurant operations. Special areas of expertise for the managing chef are classical (French) cuisine and garde manger.

The restaurant is open for operation from 4:00 pm to 1:00 am daily, closed only on Christmas Eve and Christmas Day. In addition to the managing chef/owner, the restaurant’s staffing plan calls for eleven full-time equivalent positions: bartender (1), server (4), busser (1), cook’s helper (3), dishwasher (1), administrative/clerical assistant (1). These positions are filled with a combination of full-time and part-time employees.

Management information systems include an automated point-of-sale (POS) system for processing of customers orders and printing of guest checks. The POS system provides full revenue and sales information and is highly flexible in generation of reports for user defined variables across unlimited time periods. In addition to the POS system, an independent program is utilized for processing of cash disbursements and generation of checks. Purchasing records are maintained on a monthly basis using Excel spreadsheets that are updated manually as orders

are placed and received. Payroll for the property is processed by an outside payroll service. No other automated systems are used in management of the operation and heavy reliance is placed on outside accounting services for general ledger maintenance and tax reporting.

### Methodology

The study was undertaken at the conclusion of the first calendar year of operations throughout winter and spring of 2009. The second full month of operations was selected for detailed analysis, based on the assumption that standard operating procedures would be firmly in place at that point in time while serious problems with such procedures would have been identified and corrected. Where appropriate for analysis purposes, calendar year financial information was utilized from the working trial balance prepared by the outside accounting firm. Investigations were comprised of both personal interview and document review.

### *Interviews*

The chef/owner was eager and readily available for interview and questioning throughout the study. Information obtained from this source was comprehensive and acquired through approximately 48 hours of field contact from February through April of 2009.

Employees were encouraged by the chef/owner to participate in confidential interviews and urged to speak candidly in response to all questions posed to them, without fear of recrimination or retribution. Two employees from the front-of-the-house and one employee from back-of-the-house were available and interviewed after preliminary financial analysis was completed. In addition to the three current employees, two former back-of-the-house employees were contacted and, upon assurance of confidentiality and consent of the chef/owner, agreed to meet for personal interviews. Interviews with former employees were conducted off-site at

mutually convenient times and locations. Current staff members were interviewed on-site during regularly scheduled work hours as time permitted.

The business employs one administrative/clerical staff member who has primary responsibility for organization, processing, filing, and retention of all original accounting source documents. Interviews of moderate length were conducted with this staff member in order to document the flow of the bookkeeping system, processing of bills for payment, recording of sales and revenue information, location and production of records, and delineation of roles and responsibilities between internal and external accounting functions.

Whereas payroll and related records were maintained by an independent outside company, these documents were verified as complete and accepted as accurate, with no interview or personal contact during the study. An interview was conducted with the staff accountant of the firm that provides outside accounting services to the organization. This interview was brief, confined to confirmation of the accounting flow established with in-house clerical staff and confirmation of the accounting firm's scope of engagement.

#### *Data and document analysis*

Data analysis in this study was limited to serve one of two purposes. In instances where internal analyses were available and provided, case study analysis consisted of confirming accuracy of data utilized as well as appropriateness and consistency of methodology employed. In instances where internal analysis was not available, appropriate analyses were constructed with accuracy of data and appropriateness of methodology confirmed with the chef/owner and/or clerical staff member.



Existing recipes for all menu items were reviewed in detail for accuracy in statement of ingredients used, total yield and portion size, and conciseness of instructions/methods for preparation/fabrication. In cases where issues surfaced with ingredient quantities or yields provided, these matters were resolved with the chef/owner and appropriate corrections made. Analysis of concise instruction/method for fabrication was limited to adjudication of acceptable/unacceptable, based on the criteria of whether a line-cook of moderate (3-5 years) experience and training might accurately produce the menu item desired from directions provided.

In instances where no recipe existed, a list of ingredients and their respective proportionality was prepared to allow for cost analysis. No attempt was made in either case to improve or construct fabrication instructions as this was considered irrelevant to meaningful data analysis and, accordingly, beyond the scope of the study.

Cost analyses presented by management were limited to pricing of primary recipe ingredients only. Accordingly, full cost analyses of all recipes were constructed from available purchasing records and confirmed with the chef/owner as reasonably accurate. Portion costs from this analysis were utilized in evaluating menu pricing methodology as well as budgeted food cost expense for the sample period.

Internal inventory records and computations were reviewed with respect to beginning and ending inventories, purchases, issues and cost of food sold. Actual cost of food sold per the general ledger was constructed for comparison to internal computations.

## *Observation*

Observation was a vital element of this study to permit critical review of practices and procedures at various functional levels. Prior to requesting permission to conduct this study, the researcher was able to observe front-of-the-house operations on three occasions as an anonymous customer. Approximately 16 at the beginning of the study were devoted to on-property observation, as a known observer presented to staff as a business consultant. These site visits were no more than 3 hours in length, unannounced to staff and purposefully scheduled to capture representative views of the operation at varying times during operating hours. Both back and front-of-the-house operations were observed on most occasions. An additional 22 hours were devoted to onsite observation of menu item preparation and compliance with standard recipe specifications, review of purchasing records for costing purposes and retrieval of other bookkeeping documents required for data analysis.

## *Analysis*

### *Interviews*

#### *Chef/owner interviews*

Beyond details specific to the operation discussed in other areas of this analysis, much of the time spent interviewing the chef/owner was devoted to gaining an understanding of the motivation(s) for opening the business , goals for the operation, and the parameters established for defining success.

Q: You've been in the business long enough to know all that running a restaurant entails. What prompted you to open your own restaurant?

A: I wanted to get back into food again. Without really noticing it, I had moved further and further away from the creative aspects of culinary that made me choose a career as chef and into the role of management. I wasn't happy doing that . . . continually dealing with administrative issues that had nothing to do with what was on the customer's plate and only peripherally related to the guests' dining experience. Not that I wasn't good at what I did; it was just time to make some changes, get back to basics and focus on something that actually made me feel good about myself at the end of the day.

Q: That's an interesting response but I'm not sure it answers the question of why you chose to open your own restaurant. Certainly you could have found a position as chef working in food production rather than administration?

A: Ok, it was the process that I really couldn't handle. When you're cranking 150 covers at lunch and 250 for dinner there's a goal to get everything working smoothly and then just keeping it that way. Everyone is afraid of menu changes. . . afraid of how customers might react, afraid of the costs and the hassle of changing ingredients on hand. . . afraid of moving away from anything that seems to be working well. But it's a grind for anyone who enjoys cooking and creativity. . . and it's all numbers driven.

Q: Are you telling me that your operation won't be "numbers driven"?

A: Never to the extent that the big guys are. Hell, you're the first accounting type to set foot in my kitchen and that's only because I trust you as a chef. . . I know you can relate to what I'm saying. And I really believe that a small restaurant can succeed by focusing more on what's on the plate than what's on the P&L.

Q: Do you have a profit target in mind for the restaurant?

A: Yes, and it's very realistic. If I can make the same salary I'd earn working for someone else, yet have the freedom to run and manage things my own way, I'll be happy. Anything above that will be icing on the cake. I'm not about squeezing every last nickel from every menu item to make another dollar off every twenty customers. That wears you out doing it and it eventually shows in the food you serve.

Q: You obviously have a considerable sum at risk with this facility. Have you thought about return on investment?

A: Yes, there's about \$400,000 on the line just to open the doors; almost \$100,000 more than I'd anticipated. Forty percent of that is mine, the rest was borrowed.

Q: What was the source of borrowed funds? And what's the payback?

A: The landlord was willing to finance most of the TI (tenant improvements) and roll them into the ten year lease. Some financing was available on the new equipment purchased, mostly three and five year lease payments where I own the equipment at the end of the lease.

Q: What made you choose this location?

A: I liked the fact that this whole area is new. . . new part of town. new housing, new strip mall, etc. It's an upscale area, full of optimism and everyone seems focused on building a sense of community here. The landlord was actively seeking a restaurant as part of the tenant mix and was flexible on the TI financing as an incentive to sign. I looked at existing properties available for lease but they all had drawbacks for what I wanted to do and how I wanted things laid out for back-of-the-house. I had an architect look at one place (existing restaurant) versus

what I ended up with here. . . it was a (dollar) wash between the cost of remodeling there and the cost of building out to my specs here.

Q: You mentioned being \$100,000 over budget? How did that happen?

A: Ha! The lease was signed eight months before the building was scheduled for completion. Construction went pretty much as planned but by the time I was ready to start build out there were licensing problems with the city. They approved development around the strip mall that had my operation, with a liquor license and bar, in violation of ordinances on distance requirements for sale of alcohol. We wasted two months with the landlord trying to fight city hall but finally decided the best approach was to move my location to the opposite end of the mall. Of course that meant an entire different floor plan and layout, which required major reworking of (building) plans. This cost me an additional \$20,000 in architectural fees, plus almost \$50 thousand for plumbing and electrical work in the new location.

Q: So technically, you were only \$30,000 off in your initial capital projections?

A: Yes; pretty good, huh? The rest was kind of spent on unplanned upgrades to equipment that I could have done without but are really nice to have.

Q: You've been open almost one year now. What has been the biggest surprise running this place?

A: In a word: employees! It's a small staff, but turnover has been almost 700%. And three of my people have been with me since we opened, so that kind of tells you how fast some of these position turn. Its mind boggling how difficult it is to hire qualified people and keep them, on both sides of the house.

Q: Has this impacted customer service?

A: Well, we've had some very bad nights, if that's what you're asking. Several times I've been forced to remove my chef's hat and pitch in as a server out front; occasionally trying to work both sides of the house at the same time. There've also been nights when washing dishes has been assigned to anyone and everyone who has a free moment or spare hand.

Q: What is your work schedule like compared to your last job in industry?

A: No comparison. I'm working twice as many hours and twice as hard. I was used to 12-hour days, 6-days per week. Here it's 24/7 a lot of times. It wears you down a bit; but I expected some of that, especially during the first year. And the hours are worth it, most of the time. I never feel sorry for myself or miss having a personal life; I really love doing what I'm doing.

Q: Where is your turnover highest? Why do you think this is so?

A: Definitely back-of-the-house is highest. I'm not paying a whole lot and rely on entry-level people out of necessity. So, of those who have left kitchen positions, about half have been no real loss; they weren't cut out for this kind of work in the first place. The other half have left for a thousand different reasons. The best people tend to move on to better opportunities as they become available and I do my best to train what's left to help me out where ever possible in the kitchen. I prefer to do most of the prep and cooking myself, so the main focus is on having help on the line during peak hours.

Q: Any other surprises back in the beginning?

A: I was all wet in my original revenue projections. In a good way, fortunately.

Q: How so?

A: If anything, I wanted to be ultra-conservative in budgeting revenue. To break even, I figured I had to average about \$60,000 a month in sales. I used a 65% average turn-rate – that's a full 20 points below what the most successful places I've worked have done – and figured I'd serve around 100 covers a day once things got moving. That gave me an average check of about \$20, which felt reasonable. Being in a residential neighborhood, I expected an 80/20 (%) split between food and beverage.

Q: So where were the surprises?

A: From the day we opened, I exceeded the average check projections. We're actually doing around \$29 (average check) and that's held pretty steady throughout. I really didn't set out to make a lot of money from the bar. I mean, I don't want people thinking of my restaurant as a "corner bar" type of operation. But liquor sales are a lot higher than expected; about 1/3 of total sales.

Q: How did you go about setting menu prices before you opened?

A: I wanted a food cost of 26.5%, so I just multiplied everything by 4.

Q: "By 4" would give you a food cost percent of 25%, if I'm not mistaken. . .

A: Well, yes, but 4 is an easier number to work with.

Q: How did you determine that 26.5% was a good number?

A: It's what we used at (former employer name deleted for confidentiality).

Q: You just took someone else's food cost percent and used it as your own?

A: Yes; it seemed to work well for them. You think that's wrong?

Q: I didn't say that. . . The method you describe, multiplying dollar cost of food by a mark-up factor, is fairly common. Using another property's food cost percentage is something I've never seen recommended, however. And 26.5% is a bit below the industry average, I believe. You've never had customers complain about prices?

A: Never. And if you think the 26.5% is low, I actually rounded up from there in setting menu prices.

Q: The mark-up factor was just one step of the process?

A: Yes, I kind of used that as the minimum I had to charge to offer an item on the menu. From there, I rounded to the nearest quarter or fifty cents in most cases. Some things were just marked to the nearest price point if their food cost was really low. A couple items had to be priced lower if I wanted them to move on the menu. I kind of used my best judgment, I guess.

Q: Nothing wrong with that. . . But you are telling me that a written cost analysis of some sort exist for every menu item?

A: Well, not if you mean for every ingredient. . .

Q: I don't mind dried herbs and spices being omitted, but everything else was costed?

A: No, only the cost of the major ingredient was used.

Q: Let me be sure I understand. . . The highest cost item in a recipe was used as the base to which the mark-up factor was applied?



A: Right. The cost of all other ingredients will be less than 20% of that amount, if it's a good recipe. Didn't Chef (mutual acquaintance name deleted for confidentiality) teach you that?

Q: I can't say that he did. You do realize that if your 20% figure is accurate, this probably raised your actual projected food cost percentage by around 5%, which places you more in line with industry averages?

A: Well, yes; if you want to look at it that way. So you're saying Chef was correct with his method? We're both ending up in the same place, just my way is easier?

Q: I think we'll have to confirm that to be certain. Tell me about your standardized recipes?

A: I won't lie to you so will admit I had to write a couple of them down when you told me you wanted to review all of them. But most everything on the menu did have a written recipe from before we opened. And I organized them for you to take a look at when you're ready.

Q: What is your actual food cost currently running?

A: It's somewhere between 34% and 36%, which is about where I expected it would work out to be.

Q: Where are the biggest problems with food cost?

A: Definitely produce. Produce is a nightmare in this town. First, I'm a smaller account so there's not a huge interest in my business. I've tried every distributor in town and they all have their problems. But I can tell you, I throw out nearly as much (produce) as I use due to spoilage. And it's a continual balancing act between over-ordering to meet minimum order requirements for free delivery (I need *at least* twice a week delivery for freshness) or shopping at

the local grocery stores. I prefer to shop the grocery stores, actually, but they don't always have what I need and I can waste 2 hours out of my day with just shopping.

Q: So you're satisfied most of the cost overages are due to spoilage, and not waste in production?

A: Seriously, there's no problem with production waste. I'm very frugal that way, to a point that I make a game out of it in the kitchen. I spent a lot of time on the menu to be sure I had plenty of items that made use of product that would otherwise hit the garbage. We cover almost all the bases between soups, sauces, and ground meat (charcuterie) items on the menu. And every employee knows that I keep a tight eye on the garbage cans in the kitchen.

Server interviews

Q: How long have you been working here?

A1 & A2: Since we opened.

Q: You must like it here, then, I'll assume?

A1 & A2: Very much.

Q: What makes it a good place to work?

A1: Chef is great and the food is awesome. . . we serve some incredible food here that always rocks with the customers.

A2: I like the customers. . . mostly regular people from the neighborhood, nice people who treat us well.

Q: What do you think customers like most about coming here?

A1 & A2: Definitely the food. It's always the food. Every dish looks like a work of art made especially for them. . . they always "oooh!" and "ahh!" over the presentation. A lot of places don't think it's so important, but customers really do notice and appreciate that.

Q: How about customer complaints? Things they don't like?

A1: I'd probably have to say the plate portioning is the biggest issue I hear when customers seem unhappy about anything. They don't like the 3-serving portions that we offer; it's too much for a lot of 2-tops and 2 orders (six servings) is too much for a lot of 4-tops. And, of course, most of our parties are either 2- or 4-tops, so we hear that a lot. Chef says you have to plate an odd number of items for things to look right, but I'm not so sure.

A2: She's right about the 3 servings thing; I hear that a lot. Slow service can also be a problem, though. A lot of times things back up so far in the kitchen that we just can't get orders out to customers and they grow impatient. Chef's aware of the problem more than anyone, but help is so hard to find for back there.

A1 & A2: We "86" (sell/run out of) a lot on menu items, especially the unique things that a lot of customers like to order. If we know they're popular, why don't we make sure to have them available? It's not a big thing with customers because there is so much to choose from on the menu, but they're always disappointed when we have to tell them things aren't available. This happens with a couple of items all the time. Maybe you could help us convince Chef this should change?

Q: I understand there's a lot of turnover in front-of-the-house, too. Why do you think that is?

A1 & A2: It's high, yes; but I'm not sure it's any worse than other places I've worked. A lot of the servers we hire are working because they need quick cash and a temporary job. They never tell you that during the interview, but it's definitely out there. Once they make enough for whatever they were working for, they're gone. I think we see a lot of people who are in between "regular" jobs; some just working temporarily to augment family income. Those types are always out there.

This really isn't a "tits and ass" kind of place. I mean, our customers don't respond to that and as soon as a lot of the younger servers realize this, they're off to somewhere else. We seem to see a lot of those. And you go ahead and hire them when you need help, knowing things probably aren't going to work out long-term.

Q: You do alright with salary and tips?

A1 and A2: (Enthusiastic) Yes! It's minimum wage, but the tips are pretty good. . . steady. . . it's a nice little place, in that respect. Not as good since the economy turned (downward), but our (average guest) checks are holding and customers still tip fairly well. I (we) just wish there were a few more of them these days, that's all (nervous laugh).

Current back-of-house employee

Q: How long have you been working here?

A: About six weeks... I'm doing an internship for (local culinary school name omitted for confidentiality).

Q: Good for you. . . Are you learning a lot?

A: So far, yes. But I've never worked in a restaurant before, so everything is kind of new and something to learn about.

Q: What kinds of things do you do in your position?

A: Lots of prep work; slice and dice stuff – mise en place, mostly. I also do most of the portioning and wrapping for storage on things made ahead. I also keep the refrigerators organized and clean.

Q: What do you like most about working here?

A: Really, I'm satisfying school requirements, learning about kitchen operations, and getting paid for it – all of that is cool. I also like watching Chef work; I've learned a lot from just watching. I really like the line, when Chef has to put me to work cooking for a change.

Q: What don't you like about working here?

A: It's mostly disorganized and I never know what I'll be doing from one day to the next. I also don't get to do a lot of cooking because Chef wants to do all of that. Don't get me wrong, I like doing mise, it's just that I thought I'd be getting more cooking experience.

Q: So you usually come into work, grab the prep list, and start out with that until service time?

A: Well, there's not really a prep list. . . Chef always tells me what needs done and I sort of just do that every day.

Q: I understand there's an issue with menu items being "86'd" on a regular basis. What is your read on that?

A: It happens all the time with (the two highly popular items). There's no story about it other than Chef doesn't see it as a problem. I'm pretty sure I could prepare both items myself if I was put in charge of them, and we'd never run out. I mean, both items are completely prepped in advance and frozen – there's no reason not to always have them available.

Q: Do you see yourself continuing to work here after your internship is finished?

A: Maybe, if Chef will have me. But I also think I need to look around at what's out there, too; probably work through the placement office at our school. Do you know of any good openings?

Former back-of-the-house employee #1:

Q: How long did you work for Chef?

A: About two months the first time. I was in between jobs and Chef took me on to help me out with the bills. I worked on-call for a few months afterward but it got so I was unavailable most of the time.

Q: So it was understood that your employment was temporary from the start? Any particular reason you weren't looking to stay longer term?

A: Chef couldn't afford me as a permanent thing and, like I said, I was between jobs waiting for something to open up.

Q: What was it like working here?

A: Crazy. Disorganized. You do know Chef is a control freak? Can't delegate and is never happy with what anyone else does, work wise. We got along better than most but only because we're kind of from the same school on things. Still, it was tough at times.

Q: Try to expand on what you mean by "disorganized"?

A: I've never worked anywhere where there wasn't some sort of routine in the back; certain things done on certain days of the week, some things done at the same time every day, that kind of thing. That never existed with Chef. Each day would start with a meeting where we'd go over a written list of things thought about overnight. We'd walk through the refrigerator and take stock of everything already prepped and on-hand. From there, Chef would decide what needed prepped and ready for service that night. Next day would be the same thing over again – all by the seat of the pants.

Q: What did you like most about working here?

A: Top notch ingredients for everything and the pride in presentation were the best parts. I mean, you don't find a lot of places that care this much about the food anymore.

Q: And the worst part?

A: The disorganization. Not knowing what I was responsible for yet somehow feeling to blame when things that I had no control over didn't go well. That was really frustrating for me; I'm used to a kitchen working as a team and that atmosphere didn't seem to exist.

Q: Did you find the standardized recipes useful?

A: Some were pretty good; some you couldn't follow without watching Chef prepare it a couple of times. I made a lot of my own notes to help me out.

Q: The difficulties with written recipes were all procedural? No problems with ingredients?

A: No, the ingredients were all there. The directions were often lacking, or nonexistent – or Chef had changed things since the recipe was written but the change didn't make it into the recipe.

Q: Would you characterize cost control procedures as being adequate?

A: It was pretty good, actually – but not a big deal. A lot of thought went into the menu, especially including recipes that cross use ingredients. Trim always seemed to have a use somewhere – Chef is really good at things like that, especially on the high cost product. It didn't seem to be the issue it is in most kitchens, probably because there were only two of us, and we both knew what we were doing, most of the time.

Former back-of-the-house employee #2

Q: How long did you work for Chef?

A: Six weeks.

Q: What was it like working here?

A: Not the best job I've ever had, but it was ok. I like working the line, so things didn't work out so well in that regard.

Q: You mean you never were assigned to work on the line?

A: Oh, I was there every night. I just couldn't do much when Chef was able to keep up (with dining room demand). And then we'd get busy, Chef would be in the weeds, and it would



be like, “here do this; hurry up and do that”. I never knew what was coming at me. Then Chef tells me I’m not catching on quick enough and things aren’t working out.

Q: Weren’t the standard recipes any help to you in learning your job?

A: What recipes? I never saw any. . .

Q: Did you ever ask about recipes?

A: Sure – a couple of times. Chef just told me to do what I was told, that I shouldn’t be wasting time reading recipes.

Q: What is your background?

A: I worked two years as cook for a coffee shop. . . no upscale or fine dining experience but a varied menu 24-hours a day. I also worked fast food during high school.

Q: What did you like most about working here?

A: Not much, really. I mean, you want an honest answer, right? The day Chef fired me was probably the best day I ever had.

Q: What are you doing now?

A: I’m room service chef over at (major hotel property name omitted for confidentiality purposes).

Q: How long have you been there?

A: Six months, and I really like it.

Administrative/clerical staff interview

Q: How long have you been working here?

A: Off and on since it opened.

Q: "Off and on"; what does that mean?

A: Well, I quit a couple of times.

Q: I see. May I ask what caused you to quit?

A: Let's say there was a misunderstanding of what the job was in the beginning. I was hired as a bookkeeper but did nothing but clerical and runner type work during the two weeks before opening. After we opened, it was like the bookkeeping was secondary to everything else, and I thought I would be doing bookkeeping only.

Q: Is bookkeeping a really a full-time position here?

A: No. And that's what we had to iron out during the two times that I quit. I'm now just part-time and hourly. It's been working fairly well for a while now. But it took a long time to get everybody trained and in agreement on what my responsibilities were.

Q: What exactly do you do here? What are your responsibilities?

A: I do the banking, which is probably the most important, along with reconciliation of the cash register/POS reports to the bank deposits. We do a lot of credit cards, and that is always a challenge. I also input payroll for the service bureau every week and pay bills.

Q: Any problems with any of those activities?

A: Always. Administration and paper work aren't Chef's strong suits, if you know what I mean. Payroll is always a challenge getting in on time and making sure everyone gets paid. Time cards are an on-going issue and Chef has a tendency to hire or call part-timers without telling me.

Did Chef mention to you about the POS system and cash drawer? That continues to be a problem. We pay for stuff out of the cash drawer all the time, but receipts don't always get submitted. That has me running around, and Chef trying to remember, every time the cash is short. We also have a problem with comps getting rung up as sales and voids are always a headache.

Q: Is this a problem with the POS system?

A: At first we thought so, but it turned out the problem was with us not using it correctly. Servers don't understand how the system works a lot of times and even our regulars have trouble remembering. We issue a lot of handwritten checks to customers, which are a real pain.

Q: Are you telling me the POS reports I've been using aren't a good source of information for sales?

A: No. Well, maybe during the first month (of operations). It (the POS system) was pretty useless then and I didn't know how to post adjustments to reflect corrections. It's working now, but I get frustrated because it wastes a lot of my time going back and correcting entries all the time. Reconciling the bank to the sales reports is the most time consuming job I do.

Q: Are you the only one who knows how to do this? I mean, does Chef understand the (POS) system so that entries can be made when you aren't here?

A: No, not at all. He thinks he does, and that was one of the reasons I quit the second time. Chef would try to fix things after closing each night, which gave me two messes to figure out the next day. But you're correct that I'm the only one who knows how to make corrections, or understands how the system really works.

Q: You're making me nervous relying on just POS reports for data. Should I be?

A: No, I really don't think so. We had a big meeting with the (outside) accountant the second time I quit. Chef expected them to "find someone" to replace me and the accountant understood what was going on after talking with me. The accountant backed me and made Chef understand how important all of this was to the big picture – I mean the accounting records and the IRS. That always gets their attention, when the IRS having a problem with something enters the picture. And, of course, the accountants knew no one was going to stay in my job without a better understanding of what the job was responsible for doing.

So, the first month – it was really only three weeks we were open – I wouldn't trust the detail from the POS system. Total sales were kind of "plugged" from bank deposits then because everything was such a mess. But from then on, I went back and posted all of the "hand tickets" and "voids", and balanced the system so it would be correct. You can talk to the accountant about this, but it hasn't been an issue for a long time now. Still a problem, but not an issue – that's a good way to put it.

Q: What information or documents do you provide to the accountant?

A: Every month I package all of the daily bank deposit information, copies of checks, and all of the payroll reports. These go to the account's office for them to code and post to the

general ledger. They take care of the bank reconciliation, sales tax reporting and printing a trial balance each quarter.

Q: How often do they provide financial statements?

A: You'd have to ask them, or Chef, that question. I've never seen a P&L (Statement of Profit and Loss). . .

Q: How big of a problem is cash flow in doing your job?

A: Not at all, really. There's always money in the bank to pay the bills. Chef hasn't been making transfers into the savings account as often since August, but I never have to worry about not being able to mail checks when I pay bills.

Q: Do you enjoy your job here?

A: Actually, I do. It was kind of hard for Chef to trust handing everything over to me in the beginning, and I think I read that as not trusting me, personally. Now, everyone values what I do and I definitely feel needed. And it's a great part-time job that allows me to work independently, so long as I get the work done on time. There are times, I think, when Chef still wishes I were a "girl Friday", but it was silly using me for that at my hourly rate.

#### Outside accountant interview

Q: What is the scope of your engagement with the restaurant/corporation?

A: It's limited service. We review all bank transactions, reconcile the bank, and maintain the general ledger. Entries are posted monthly and we're retained to prepare all non-payroll tax returns.

Q: What about financial statement preparation?

A: We can certainly provide that, but the client didn't want to pay for financial statements on a routine basis.

Q: So Chef is relying on a cash-basis trial balance to determine profit each month?

A: Obviously we can't speak to what Chef may do with information provided by us, but it's reasonable to assume that's what is being done. We normally provide copies of the trial balance on a quarterly basis, however; not monthly.

Q: I've had some interesting conversations with the bookkeeper. Can you shed any light on the difficulties encountered there, at least initially?

A: Certainly. There was no understanding of what the bookkeeping and accounting role entailed. Expectations were unrealistic in terms of the time requirement for the basic bookkeeping functions and Chef seemed to think the bookkeeper was more of a secretary and personal assistant.

I sense there was an adversarial role with accountants in the past, from Chef's industry experience with internal accounting staff. There was learning curve to establish that we're really here to help with the record keeping and tax compliance side of the business. I'm not certain that point is still fully understood or that Chef knows how to use the information we provide. While other services were certainly offered, there was a reluctance to engage for anything more than basic tax services. That is fine with us; we have a large number of clients who are content operating that way. And we're always here to provide any additional services as they are needed.

## *Data and document analysis*

### Standardized recipes

Standardized recipes were provided for all menu items. Many of the recipes were in handwritten form but all seemed reasonable as to ingredients, quantities used and proportionality, and portion yields. Preparation and fabrication was observed for approximately 25% of menu items and no material deviations from standardized recipes were noted in practice.

The weakness of existing standardized recipes was in the instructions/methods provided. In the case of handwritten recipes, instructions were frequently little more than the chef's shorthand or cryptic notations. In several instances, even the chef had to read the entire set of instructions, think for a moment, and then verbally translate what the notations meant. Where recipes were typed, instructions were improved, but often vague and frequent confusion was encountered relating specific lines of instructions and the ingredients to which they related within the body of the recipe. Overall, recipes were judged to be beneficial for cost analysis, but seriously deficient for purposes of training new employees and only marginally useful in providing detailed guidance to existing staff.

### Menu Pricing

The approach described by the chef/owner for establishing initial menu prices was a combination of quantitative (Factor Method) and qualitative (Intuitive Method) approaches. With a stated desired food cost percentage of 26.5, a mark-up factor of 4 was used to determine minimum menu price for each item. In departure from accepted application of this method, the mark-up factor was applied only to the most expensive or major food item of each recipe.

Projected food cost for the sample month, utilizing fully priced cost analyses for all menu items, was 31.26%. Due to the rounding to nearest menu price points and intuitive adjustments to market used in establishing actual menu prices, there was no significant difference in final menu prices adopted whether using the partial or full recipe costing approaches. It must be noted that this was coincidental and primarily due to the conservatively low food cost percentage arbitrarily used in computing initial menu prices.

#### Recipe and cost analysis

The projected theoretical standard food cost (weighted-average) from the internal sales mix reflected an expected food cost of 25.5% (\$ 16,546) for the sample month. The projected standard food cost using fully costed recipes was 31.2% (\$ 20,245). Computation of cost of food sold from internal purchasing summaries resulted in \$23,100 (35.6% of sales) for the sample month. Similar computation based upon account totals from the general ledger was \$ 25,436 (39.2% of sales).

The difference between the internal computation of cost of food sold and that computed per the general ledger is due to several factors. Purchase records are maintained independently from the general ledger and are based primarily on receiving documents and/or subsequent invoices from vendors. During the sample month, approximately \$1,400 in purchases made in cash and reimbursed to employees through daily receipts were not recorded in the purchasing records. One produce and one meat invoice with a combined total of \$936 were not entered into the purchasing records, accounting for the remainder of variance between purchasing records and the general ledger.



In operational monitoring of food costs, it has been noted that acceptable variances are determined by management and that variances above (or below) these established tolerable limits warrant investigation. Whereas variances are monitored in percentage changes from one month to the next, that variances were computed from an incorrect projected food cost base did not preclude accurate analysis of percentage increases or decreases on a monthly basis.

### *Observations*

A consistent observation in all visits to the property was how totally dependent the operation was on the chef/owner. Employees seemed intimidated to show initiative in the discharge of duties and the general atmosphere was similar to that with young children continually seeking guidance and approval from a parent. Furthermore, this appeared to be a climate encourage by the chef and quickly adapted to by all employees.

The chef/owner is a very disciplined, organized, and detail-oriented individual who always seemed to have a plan that governed daily activities throughout the restaurant. This plan was rarely articulated to employees, leaving them with minimal senses of direction or satisfaction in accomplishments as daily tasks were performed. This observation was best expressed by a former employee in referring to a lack of teamwork in the back-of-the-house.

In conversations with the chef/owner and through review of volumes of managerial documents and reports, a tendency to confuse data with usable information was observed. Nowhere was this more pronounced than with utilization of the POS system and the various reports it is capable of producing. As one example, detailed print-outs of daily sales and number of items sold, by menu item, are routinely generated and saved in binders in the administrative office. This information has not been analyzed to the point where the number of each menu item

sold per week is known – or utilized to maximize efficiency in scheduling kitchen production. Similar information might be used to improve accuracy of food order quantities, potentially minimizing spoilage.

Observation of food production indicated that recipes were adhered to as written. Ingredients were properly scaled and all usable trim and scrap was routinely captured for future use in other recipes. Considerable time appeared to be wasted in working one recipe at a time when an organized preparation list may have facilitated preparation of ingredients for multiple recipes all at once. Additional staff time was wasted looking for the chef/owner upon completion of each task as further direction was required for the next activity.

Numerous instances were observed where production on the line was compromised during service by removal of one or more cooks to prepare items that should have been fabricated earlier in the day and ready for appropriate finishing procedures upon receipt of the order. On busy nights, where such delay could not be tolerated, servers were instructed to advise the customer that the menu item was unavailable.

Service, in general, is slow. Part of this seems inherent to the relaxed pace of the restaurant as well as the concept of the multi-course, many-small-bites dining experience. Customers seem to understand the pace and few instances of intolerance were observed. That said, much of the delay in service is through lack of organization in the kitchen and absence of a full-time expeditor managing the flow of orders prepared and released to servers.

## Conclusions and Recommendations

This case examined the application of cost control concepts within the framework of a small, independent restaurant operation. While it was demonstrated that these concepts are applicable to the small, independent environment, the study also suggests that the need for many of the more elaborate cost control systems is diminished through tight, centralized control over operations. There is a degree of validity to the assertion that when management consists of a sole individual who is always present and continuously monitoring the operation, volumes of written policies and procedures relating to cost control become bureaucratic and redundant.

The weakness of the above conclusion is rooted in a narrow perspective of the cost control function as single-purpose financial analysis tool rather than as an integral and valuable component of a comprehensive management system. Few would argue against the important role afforded the subject of cost control in maintaining or maximizing profitability of an organization. In this study, however, it was evident how components of a quality cost control system may benefit many areas of the operation beyond mere financial analysis.

This case presented the chef/owner working 16 – 20 hour days, seven days per week. This concept of a sole individual always present and continuously monitoring the operation is unsustainable in the long run, dangerously risky, and poses serious threat to both continuity and viability of the business. The level of control (and responsibility) currently assumed by the chef/owner is such that continued operations would be impossible in the event of illness, injury or death. The concept of a management structure assumes multiple tiers of defined and integrated positions, coordinating activities and responsibilities in a harmonious and

complimentary manner to achieve smooth operation of the business. In this situation, there are no tiers and, as a result, there is no structural strength to management of the organization.

In addition to the traditional role played in the cost control system, it appears that standardized recipes may serve an important function in the employee training process as well. Back-of-the-house employees consistently expressed frustration with disorganization, confusion as to what was expected of them, and the absence of clear, routine assignments and responsibilities. The chef/owner was unsatisfied with the performance of hired staff and disappointed in employee turnover. It is possible that these two complaints are related and that a clear, concise set of carefully constructed standardized recipes might ameliorate the discontent of both parties if incorporated as a component of the back-of-the-house employee training process.

Analysis of menu items sold is an important step in determining the theoretical budgeted (expected) food cost for a given volume and mix of sales. A preliminary step in conducting this analysis is capture of sales data per menu item, information routinely maintained by virtually all POS systems. Beyond its value to analysis of historical costs, this data on menu items sold may be utilized as a valid predictor of future sales. While the statistical proof of this predictability (probability) is likely “too much information” for many small owner/operators, it is intuitive that sales for each menu item should eventually reach a “normal average” in number per day, week, and/or month. While variability will always be an issue with such predictions, these averages are generally within tolerable limits and quite reliable for purposes of food production and planning.

Once the average number of each menu item sold is established, it is a relatively simple matter to compute total number of each item required for sale, total ingredients required for preparation, and production assignments for staff to meet these requirements. Use of this

information would permit more accurate ordering of food products and streamline the purchasing function as a whole. Especially for a menu that lends itself to advance preparation and storage of menu items, it would also allow establishment of daily “par” levels of prepared product ready for sale. Daily inventory of items on-hand versus expected sales would serve as a basis for special production assignments and minimize instances of menu items being unavailable to customers. More important, production schedules based on accurately projected sales would improve utilization of labor and address the general complaint of “disorganization” reported by all back-of-the-house employees.

### *Recommendations*

Menu prices were determined to be valid, even though developed by unorthodox application of acknowledged menu engineering techniques. Full cost information for all menu items was provided in connection with the study and it is strongly recommended that such information be maintained current, on at least a quarterly basis, for all present and future menu items offered. Additionally, future menu pricing decisions should be based upon accepted quantitative and qualitative approaches utilizing total recipe costs.

Standardized recipes were reviewed and critiqued in considerable detail in connection with this study. Effort should be made to clarify and refine the instruction/methods section of these recipes and enter them in typed formats. Complete, printed recipes for every menu item should be provided to new kitchen employees as part of their initial training and should be available to all back-of-the-house staff for reference at any time. Whereas a digital camera and computer equipment is readily available, consideration should also be given to incorporating a photograph of the finished plating concept for each dish within the standardized recipe.

There is no argument that the devotion and commitment of the chef/owner played a significant role in successfully establishing the restaurant and its reputation with customers. After a year in business, however, the organization continues to exude auras of tentativeness, uncertainty, and unconfident control expected of a newer, fledging operation. This is due, in large part, to micro-management of operational details and limited focus on developing a trained and competent staff capable of meeting the routine demands of the operation.

The chef/owner was fortunate in being able to recruit and retain two stable, dedicated, and caring employees as servers for front-of-the-house operations. Much of the success of front-of-the-house performance is attributable to the dependability of these employees, their knowledge and understanding of the restaurant, their respect and regard for the chef/owner, and their commitment to customers and quality service. In many respects, these two employees effectively share responsibilities of a front-of-the-house manager, inadvertently creating opportunity for the chef/owner to devote inordinate attention to back-of-the-house operations.

Effort should be made to recruit, train, and retain at least one comparable supervisory employee for back-of-the-house operations. This is unlikely to be accomplished at minimum wage levels in the current market. Whereas profits appear sufficient to fund a position above entry-level, this should become an immediate priority. The goal in creating this position would be to bring back-of-the-house operations to a level of independence similar to that enjoyed by the front-of-the-house, thereby freeing the chef/owner to function in a broader capacity as general manager. This would not only streamline kitchen operations but also make better use of the chef/owner's time and ability.

Considerable time and effort is currently devoted to maintenance of multiple independent (non-integrated) information systems that are never reconciled. It is recommended that the general ledger, utilized for all accounting purpose, be acknowledged as the single, ultimate source of financial information for the organization. Accordingly, appropriate resources should be devoted to its timely and proper maintenance and all management reports derived from (or reconciled to) the detail that supports its account totals.

Better use should be made of existing bookkeeping and accounting personnel. This would not only free the chef/owner of many clerical duties that are currently neglected due to time constraints, but would align responsibility for reporting with positions that best understand the general ledger and the reports that are dependent upon it. As seen with the computation of cost of food sold, correct methodology applied to incomplete or incorrect data is inadequate for accurate management analysis and control.

It is recommended that the scope of services with the outside accountant be expanded to provide a Statement of Profit and Loss on a monthly basis. These monthly statements should be supplemented by a Balance Sheet and Statement of Profit and Loss, prepared on an accrual basis of accounting, at the end of each quarter.

Current bookkeeping staff should be requested to assume responsibility for maintenance of sales histories, especially records of menu items sold. This should be a relatively easy Excel spreadsheet project, readily maintained on a daily basis from information provided by the POS system. Information from this spreadsheet should be used to determine weekly food production quantities, which may be used to produce daily production schedules for staff. This would organize the food production task and permit daily work assignments based on the production

schedule. It would also allow for the smooth flow of preparation and availability of product in absence of the chef/owner.

Purchasing functions will likely improve with better scheduling of production and known production quantities each week. The purchasing monitoring system currently in use should be abandoned, however, as it is time consuming to maintain and the purpose it serves is better satisfied by information from the general ledger. Any additional purchasing data bases should be maintained by the bookkeeping staff as an extension of the accounts payable function.

Finally, it would be beneficial to reflect on existing attitudes and perceptions toward the cadre of outside professionals available to assist the small business owner. There is no disgrace in one person not being able to manage each detail of every aspect of a high-volume, dynamic operation. This is why so many ancillary support services have evolved within the American business environment and the foodservice industry, in particular. These resources can be highly productive and cost effective when properly utilized and managed.



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## APPENDIX A

## Standardized Recipe Example

<b>PRODUCT NAME:</b> Butternut Squash Soup with Caramelized Apples			<b>YIELD:</b> 3-3/4 gallons; 40 servings		
<b>Pan Size:</b> 4-gallon stock pot			<b>PORTION SIZE:</b> 10 fl oz (1-1/4 cup)		
			<b>PREPARATION TIME:</b> 1 hour		
INGREDIENTS	QUANTITY		PROCEDURE		
	WT	VL			
French bread	1	#	1. Cut the bread into 1/2" cubes; fry in butter until golden brown.		
Butter, unsalted	4	oz			
Butter	4	oz	2. Sweat onions, leeks and carrots in butter.		
Onions, small dice	1	#			
Leeks, small die	1	#			
Carrots, small dice	1 1/2	#			
Butternut squash, med dice	8	#			
Chicken stock	10 1/2	qt	3. Add the squash, stock and browned bread. Simmer until vegetables are tender.		
Salt			4. Purée the soup with an immersion blender.		
Pepper, white, ground					
Allspice, ground					
Ginger, ground					
Apples, Granny Smith	4	#	5. Bring the soup back to a simmer; add salt and spices.		
Butter	6	oz			
Sugar, brown	12	oz			
Cream, heavy			6. Peel, core and thinly slice apples. Cook in butter and brown sugar until apples are caramelized.		
			7. At service, heat the cream and add to the soup.		
			8. For service, arrange apple slices in rose shape in center of soup bowl; ladle hot soup around apple decoration.		

