ISSN: 1993-5250

© Medwell Journals, 2016

A Direct Costing System for the Street Food Segment

¹Gessuir Pigatto, ²Joao Guilherme DE Camargo Ferraz Machado, ³Timoteo Ramos Queiroz, ⁴Julian Roberto Nishimura and ⁴Andrei Golfeto Dos Santos ¹Department of Economy and Food Service, ²Department of Marketing and Service Science, ³Department of Financial Analysis and Network Management, ⁴Department of Business, Univ Estadual Paulista (UNESP), Campus de Tupa, Avenida Domingos da Costa Lopes,

780. Bairro Jardim Itaipu, Zip Code 17602-496, Tupa, SP, Brazil

Abstract: Current research develops a system of direct costing for the street food segment, especially for street food vendors by identifying costs for a better management of working capital and competitiveness in business. Current exploratory and descriptive research identifies the main factors used in street food and proposes a simplified model for costs from the entrepreneurs' point of view. Methodology comprised two procedures. The first procedure involved five entrepreneurs to fill the worksheet by a transversal collection; the second procedure comprised an entrepreneur from Tupa SP Brazil who longitudinally filled the cost sheet for 4 weeks.

Key words: Street food, direct costing, competitiveness, costing system, entrepreneurs

INTRODUCTION

Constant changes in the economy and in society have triggered new types of commerce and services that comply with the needs and demands of the consuming market. A special reference may be the food trucks which since 2013 abound in the main Brazilian towns and cities. Such an occurrence is linked to urban transformations, especially from the 1970s which involve place, diversity and broadening of merchandize range in the wake of increasing demands as a result of the country's urbanization process.

There was a significant growth of services during the same period worldwide with extraordinary speed in the developed countries of Europe in the USA and Japan as a consequent of the productive re-structuring process due to technological transformations that demolished the barriers between the industries and reinforced interdependence among the different segments (Bryson and Daniels, 2010). In fact, the 21st century may be characterized by a new dynamism in services which became a highly attractive business in developing countries.

As a rule, a country's development is followed by an increase in the economical relevance of services. The

service sector in Brazil increased from 63% of the GDP in 2004 to 69.4% in 2013 which evidences high development. In 2012, it was estimated that approximately 1.15 million firms were developing non-financing services in Brazil and producing a net operational income of US \$407.4 billion with 11.9 million people employed (IBGE, 2014).

In the case of food service, classified within the entertainment section, the urbanization process underscored activities that enhanced practicability, time-saving in food preparations and facilities in their consumption. Needless to say, the process favored the growth of the food segment with special reference to food services outside the home. Street food became a world habit described by Guigone (2004), Calloni (2013) and Lucan *et al.* (2014) prompted by lack of time for food preparation, seasonality, temperature, increase in vendors and wage rise.

In Brazil, the Family Budget Research (POF 2008-2009) revealed that 31% of food expenses are spent outside the home, with a 30% increase over the 2003 survey. Nevertheless, no reports are extant on the specific costs with street food (IBGE, 2010).

Street food has certainly an important role in the consumption of food especially in the towns and cities of developing countries for low and middle wage-earning classes of people, due to its positive cost-benefit factors (Cardoso *et al.*, 2009). The above is a mere indication which needs further analysis since most street food enterprises do not register the true costs of their products.

Featuring products for immediate intake, street food in Brazil is normally associated with vendors of hotdog, popcorn, ice creams, cane sugar syrup, cheesecakes, corn cakes and others, servicing from food booths, carts, trucks and even trays, although, the business is regulated by the town council. Frequently street food represents local culture and tradition, with their great variety of options (Winarno and Allain, 1991; Guigone, 2004; Calloni, 2013).

However, the establishment of food trucks in Brazil is a marketing strategy envisaged by already installed restaurants or as an alternative for the provision of food. According to Choi *et al.* (2013), street food has been enhanced through the introduction of unique and different tastes using a simplified technique.

Street food vendors are engaged in a highly competitive market with a great variety of products and services, without any entrance restrictions or easy and accessible entrance costs. In such conditions, it is not easy for the vendors of such services to determine the price of their products without taking into consideration the prices of their competitors on the market.

Current research develops a structure for direct costing for small street food vendors, particularly for lunch carts, by identifying costs for a better working capital and business competitiveness.

Theory

Service segment: The activities of the service segment comprise heterogeneous actions on the performance of the firms, profile on man power, use of technology and integration within the innovation process. It may be sub-divided into several parts: service to families, information service, services to firms, transport, auxiliary services intransport and mail, housing estate service and the renting of estates and movables, maintenance and reformation service, other service activities (IBGE, 2014).

Small and medium-sized firms, mainly with activities for the target consumer are predominant in services for the family. Their dynamics are mainly related with demographical evolution, degree of urbanization and changes in habits (Meirelles, 2006).

Several researchers (Zeithaml et al., 1985; Rust and Chung, 2006; Fitzsimmons and Fitzsimmons, 2006; Moeller, 2010) identified the main traits that distinguish products and services, namely:

- Simultaneity and/or inseparability: the services are established and consumed at the same time, frequently in the presence of the consumer. The trait affects directly the strategies of commercial firms in the wake of working with fluctuation of service demand such as fall in demand in a restaurant on a rainy evening
- Heterogeneity and/or variability: frequently service depends on manpower with more or less homogeneity in production. This explains why even a renowned chef may not reproduce the same meal in two different circumstances
- Intangibility: it is not easy for the client to visualize, feel, test and touch the service. Due to this characteristic, the consumer cannot guarantee an equal service in a restaurant described by a friend who indicated the place
- Perishability and/or incapability of being stored: this
 is an attribute related to the difficulty or impossibility
 in storing the material. Consumption is immediate as
 soon as the client needs the service

Gronroos (1990) and Fitzsimmons and Fitzsimmons (2006) underscore that the differentiating trait in service is that the main value is the interaction between the buyer and the seller. Needless to say, the clients' participation or one of their goods is essential within the process.

Lovelock and Wright (2002) and Kon (2004) forward the same relationship when they report that the stages for the supply of service and consumption are contained within coinciding time spaces. Their product does not have a durable trait and although the process may be linked to a physical product, the performance is basically intangible and normally does not result in any property of any producing factor.

The above properties derive from the very nature of the segment service which is work in process. The generated product may be tangible or intangible; it may be physical or a simple information in so far as there exists exclusively a work in process during its manufacture (Kon, 2004; Meirelles, 2006).

The literature which identifies the sectors of the economy linked to products or services places the food sector within the intermediate mark or rather between the service sector and the consumption goods sector. The sector is thus a market based on the product due to the tangibility of the process's result (the plate may be touched and transported) or based on service (the impossibility to store the result of the process). In fact, Kotler and Keller (2006) classify the food service as a hybrid supply.

Consequently, the food sector was analyzed as service, since the inseparability between the final result and the process of obtaining is more and more being enhanced in the food market. The trait may be observed when consumers choose a restaurant due to its localization, environment and/or recommendations by the chef.

Characterization of food service and street food: Food service integrates an important sector in terms of financial amounts with distinct characteristics. According to PAS/IBGE data in 2012, food services such as restaurants, bars, snack bars, food carts and suppliers of ready food were responsible for most of the income, employed personnel and number of firms. In 2012, almost 221,000 firms exhibited an income of US \$30 billion and employed 1.6 million people. Data are restricted to small-sized firms, with an average of 7 employees each and a mean wage of 1.3 minimum wages (IBGE, 2014).

The above-mentioned sector provides service and production of meals to consumers outside their homes and includes the preparation and provision of any type of food to be consumed by the clients on the spot or in any other place which they fancy. These commercial firms comply with the conditions imposed by humans within the transformation of their life style conditioned by work (time schedules and distance from home) and by the increase in female occupation in the labor market. Food processing which was usually produced in the home has been transferred to the working site.

Such characteristics reveal a change in the way society sees the taking of meals outside the home or rather, it is not a mere recreational alternative but has become a requirement within the outsourcing model of family services. Its dynamics is mainly related to the demographic revolution, degree of urbanization and changes in consumption habits (Correa and Campos, 2006; Meirelles, 2006).

Further, the growth of this outside the home food segment was caused by changes in the economy and in society which lead towards new types of business in the food segment, adjusted to the needs and demands of the consumer market, practicality, less time available for the preparation of food and the facility for consumption, growth of the elderly population which requires and demands quality food and frequently does not want to prepare it in the home, increase in the number of people living alone, either optionally or due to certain occurrences in their lives, the economic rise of the Brazilian poor community, introducing into the market a

new group of consumers who start having meals outside the home and spending more on their tickets, requirements of the labor market with specific time schedules and long distance from the home, entertainment or rather, family go to restaurants for meals on weekends and to commemorate events.

Establishments such as fast food, vending, delivery, self-services and street food are the main commercial manners for taking one's meals outside the home. The term 'street food' identifies food and beverages, ready or almost ready, prepared on the spot for immediate consumption or not and discarding additional stages in preparation or processing. It is normally localized in or close to places with great movement of people such as schools, parks, gardens, fairs or avenues (WHO, 1996). Tinker (2003) reports that street food may be any type of food, minimally processed, sold on the street for immediate consumption; consequently, an inexpensive food for all workers of all classes and occupation.

Street food is often food for low-wage people which helps them to maintain their energy during the day (Tinker, 1999). At the same time, numberless examples in production and consumption of street food exist which is not strictly cheap for the low-wage worker but examples of service which has collaborated in the increase of fast food practice.

According to Winamo and Allain (1991), fast foods and street food simply low acquisition costs when compared with meals in restaurants and served as an attractive alternative for home food. Their preparation occurs only when the client demands the food. However, in spite of such similarities, street food and fast food differ in variety, environment, market techniques and property.

Street food originated centuries ago when travelers and merchants took their meals on the streets when they spent long periods of time far from their homes. In the history of the market, street commerce was perhaps the first form of commerce introduced in Europe and hence forth became a dynamic sector which adapted itself to time and space. This may also be said of street food.

Big open spaces, especially squares, streets and curbs are the most used environments for the establishment of commerce. In fact, open spaces in the central sections of towns and cities make possible the movement of people and business. The geographical distribution of entrepreneurs is directly associated with the consumers of the product or rather, they establish themselves at the place and time where consumers are interested to acquire their products.

Street food comprises a great variety of ingredients, processing, commercialization and consumption methods, frequently adjusted to traditional and local habits (WHO, 2010). The success of food service on the street, especially in developing countries, may be attributed to tax exemptions (due to the status of irregular vendor), lack of labor duties, the buying and selling of tax-free goods, freedom in the choice of food, flexibility of labor schedule and low capital for the establishment of the commercial activity (investments in equipment and installation). Draper (1996) also registered that these businesses are characterized by their smallness and the employment of traditional technologies in food processing which makes their introduction into this specific sector easy and with great competiveness. Low costs and prices of food may be the result either of low implantation and maintenance costs or the use of cheap or low quality ingredients.

However, it is a mistake to consider street food as a form of meal-taking restricted to underdeveloped or to developing countries. Street food vendors may also be encountered on the streets of big developed cities. Hot dog vendors may be traditionally found at the corners of the streets of New York (Tinker, 1989; Guigone, 2004). According to Tinker (2003), street food is actually a universal phenomenon.

Certain traits characterize street vendors: they have the proper tools, stock of goods and the necessary qualification for the development of their activities, they unite labor and management of their business, they maintain the activity mainly as a self-employment and for its monthly income rather than big profits.

Street food vendors, found in several sites in towns and cities have different labor structures which range between micro-entrepreneurs legally established in fixed premises with an area to attend to the public, a place for the preparation of food, restrooms and street vendors who carry their trays with their product ready for consumption. Although, they demonstrate a high variety of forms, sizes, construction material and sanitary facilities, most of these installations (with the exception of snack bars) are very unsafe and shanty with no sanitary facilities or drinking water supply. The washing of hands and cutlery used in the preparation of meals and the maintenance of the required temperature for ready food are rather difficult (Huaman, 1996).

The precise number of people directly or indirectly linked to the street food segment in Brazil is not easy to calculate, especially since many of the entrepreneurs are not legally constituted. According to numbers furnished by IBGE, there would be about 10.3 million non-registered enterprises in 2003 of which 719,000 would be classified as food service (IBGE, 2005). To estimate the number of entrepreneurs in the food sector, one may take the number of individual entrepreneurs registered in activities related to food outside the home. The number of entrepreneurs that dispense food on the streets plus those that supply food mainly prepared for home consumption total 177,000 registered individual micro-entrepreneurs or rather, >3.5% of total individual entrepreneurs on the government list (Portal do Empreendedor, 2015).

Labor structures and forms, work schedule and products sold by street food vendors vary greatly worldwide. In fact, they may be classified as small service caterings (self-employed vendors) that have fixed or movable sites (stalls, fair stalls, adapted cars) to exploit and commercialize their wares and who are officially registered or not on the government roll.

Costs: Examples of failure and bankruptcy in street food entrepreneurship are common due to lack of management of those in charge. Many future entrepreneurs establish a street food service without any knowledge of cost composition, potential income, the main characteristics of the business and other relevant aspects.

The objective and real calculation of costs not only determines the firm's profits, controls activities and collaborates in decision making but also helps in the solution of problems related to the selling price. The contribution of each product must be calculated for the composition of profit to establish the minimum price that should be proposed for the product and the minimum level of activity in which the business becomes feasible.

Total production costs are the total expenses that the firm incurs to produce a product. The literature divides total costs into two classes: fixed costs which are independent of production and direct costs which depend on production and change according to the quantity produced (Gremaud, 2007). Direct costs are directly related to the volume of production or selling and the growth of values is directly linked to the quantity produced by the firm. Fixed costs are rather constant, regardless of the volume of production, even though they have slight variations, albeit irrelevant or disproportional to the variation in production (Wernke, 2004). The above concepts reveal the importance of capital reserve for the payment of fixed costs of a firm such as rent, water and electricity bill, among others which have to be paid regardless of the amount of goods produced.

Non-legal vendor frequently have a significant reduction in fixed costs since they are not registered in trade boards, they do not pay certain bills and are constantly evading taxes (Yazigi, 2000). However, even some registered vendor are not obliged to pay all the fixed costs since the municipal government may freely install water and electricity for their use.

In the case of sellers of lunches with movable structures such as trailers or vans, a single permit from the town authorities is required. The permit makes them legal and they do not have to pay any other taxes as the owners of snack bars or stalls in commercial premises are required to do. Since, the latter provide a similar service, the two entrepreneurships vie with each another for clients.

The difficulty or almost impossibility in calculating the fixed costs of these enterprises, a direct costing is employed; in other words, the products are measured according to their production costs. Fixed costs which are not absorbed by the product are periodic costs and are placed directly under the income statement (Megliorini, 2012).

Leone observed that direct costing is based on the principal that expenses and costs that should be attributed to the products or services are those directly identified with the production activity. They are variable with regard to this activity.

Schoeps (1992) showed that direct costing is a highly applicable tool and contributes to increase the competitive power of the firm, to better plan economic results and determine prices according to capacity and at the same time, to market conditions.

Andrade *et al.* (2013) underscore that the size of the firm greatly affect the complexity of the adopted accounting model. Simplified accounting is very common and highly beneficent. Actually, it is in accord to a control system of more simplified costs, similar to direct costing.

According to De Iudicibus *et al.* (2003), direct costing allows a better analysis of the firm's performance since one of its attributes is the analysis of variability in expenses and costs.

In fact, direct costs do not merely include the sum of expenses with the buying of ingredients but also expenses with production and transformation, storage and transport of ingredients, products and other expenses. The analysis of direct costs aims at optimizing the productive process so that wastes in resources and capital are avoided and consequently, the benefits of economies of scale.

According to Ratto (2004), a set of goods should comprise an analysis of the main products which necessarily define the commercial firm and complementary products which aggregate value to the service and attract clients. Complementary products are expenses which include storage and manpower. Their potential and aggregate value to the main service should be assessed. In the case of street food vendors, especially those who prepare lunches on consumer's demand, the supply of a great variety of lunches may increase costs which are not compatible to increase of income and profits.

Acquiring goods to attend to clients' demand depends on their availability on the market, competitors, the possibility of acquiring them, available resources by the buyer, preferences of the final consumer and knowledge of manufacturers and distributors.

Although, this type of service requires products of good quality by consumers, vendors try to take a balanced attitude since net profit per unit is small. Since, entrepreneurs maximize their profit due to the amount of goods sold, the buying price of the ingredients is highly relevant, albeit not the only one in the buying decision (Ratto, 2004).

Due to their great perishability and to the small size of street food stalls, the acquisition and storage of ingredients on a large scale are impossible. In fact, they are ready foods or finalized at the client's demand or rather, non-durable goods with low storage capacity.

MATERIALS AND METHODS

Although, a qualitative research was required due to the need to comprehend the perspective of the entrepreneurs under analysis, research had to be exploratory and descriptive to identify and describe the main ingredients employed by the entrepreneurs of street food. A simplified costs model will be subsequently proposed.

The first step of research was the development of a theoretical model of direct costs undertaken with five entrepreneurs (two from Dracena SP and three from Tupa SP, Brazil) to identify costs for the acquisition of prime matter and for the preparation of the lunches.

The second stage occurred in two steps: the first step was undertaken with the five entrepreneurs mentioned above so that cost sheet could be filed; the second step was undertaken by only one entrepreneur from Tupa who filled the cost sheet longitudinally during 4 weeks. Information was processed to establish a simplified structure of costs that would reveal costs for the maintenance of the business and acquisition of the prime matter. Figure 1 shows this development.

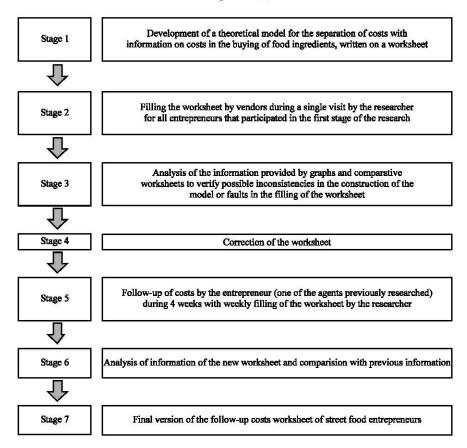


Fig. 1: Stages for the construction of a costs sheet for street food entrepreneurs (prepared by researchers)

RESULTS AND DISCUSSION

Construction of a model: Information was processed to establish a theoretical structure of direct costs that would identify costs for the acquisition of prime matter and the manufacture of the lunches.

The worksheet took into consideration eight types of products, identified on the information collected from street food. Information on measure unit, brand, price and buying period were taken into account for each class of products (Table 1). Data collection took into account five variables to define parameters for the costs model.

Variables for the preparation of the theoretical model for costs:

- Types of ingredient used the variable involves not merely the prime matter (bread, sausages, salad) but also consumption material, wrappings, beverages and production resources such as water, electricity, gas, telephone
- Type of measurement unit (liters, kilo, packages) the variable compared costs and consumption of the interviewed entrepreneurs, according to the sales

- Period during which the ingredients are used a comparison criterion is established based on the end of ingredients or payment of electricity, water and telephone bills
- Consumption in a period of time the variation in the quantity of packages, amount of bought goods and consumption made difficult the process of data tabulating. For instance, vendor A said that he used a packet of Catupiry every 4 days whereas a bunch of parsley lasted 3 days
- Prices paid and consumed brands a survey on prices paid and brands of ingredients compares results among the interviewed people

To solve the lack of uniformity in filling the variable 'Consumption in a period of time', the interviewed street food vendors were assumed to be working at a 6×1 period (6 working days and a rest day). A table was used with conversion factors to calculate variations and unify all ingredient consumption spans within a month. Standard month was equivalent to 25.4 days or 4.34 weeks or 2.17 fortnights.

Table 1: Group of ingredients and relevant variables for the elaboration of

costs structure					
Type of ingredients	Unit	Brand	Period	Price	Consumption
Meat and conserves					
Seasoning and condiments	;				
Salads and vegetables					
Bread					
Bulk material					
Wrappings					
Beverages					
Productive resources					

Prepared by tresearchers

Table 2: Proportion of monthly costs of the firms under analysis

	Percentage					
Interviewed	 A	В	С	D	Е	Average
Meat and conserves	47	47	49	41	57	48
Seasoning and condiments	11	9	3	5	11	8
Salads and vegetables	4	5	4	3	3	4
Bread	14	8	13	14	15	13
Bulk material	1	1	2	7	4	3
Wrappings	4	5	1	3	3	3
Beverages	17	24	27	27	7	21
Productive resources	2	1	0	0	0	1
Total	100	100	100	100	100	100

Prepared by researchers

Application of the model

Stage 1: Worksheets handed to the five vendors selected from the entrepreneurs of the two towns were prepared from the developed theoretical model. The entrepreneurs informed the costs of the ingredients and the worksheets were filled with costs in the course of one visit to each interviewed person. The aim at making only one visit was to know whether the entrepreneurs followed or whether they had an idea on the distribution of their expenses.

It was thus possible to establish the percentage of costs when the prime matter for the preparation of the lunches was bought. The differences (in terms of cost structures) between vendors who employed movable or fixed equipments were verified.

A relevant factor that jeopardized the calculation of results was the use of non-waged familial manpower in four out of the five entrepreneurships. Lack of work registry of employees reduces costs on taxes and workers' benefits.

Table 2 shows the proportion of costs with regard to total working capital required for the running of the entrepreneurs.

Only the water and electricity bills were the fixed costs since the minimum amount is charged, regardless of the number of products sold. Although, these costs were relevant for the entrepreneurs, not all fixed costs could be calculated. Besides the lack of control by the vendors, it was rather difficult to calculate gas, electricity and water spent.

In the case of the interviewed vendor from Dracena (A and B), the costs of productive resources could be assessed since the town authorities require the employment of measuring instruments and register from

the electricity and water supply companies. In the case of Tupa, calculations were compromised since one of the interviewed vendors used water and electricity from his own residence. Moreover, all undertake some activities which include the making of sauce and pre-cooking of meat in their own homes. All these situations concur towards fictional numbers with regard to production resources. In spite of the above, it was surmised that gas was the most expensive item within the business due to its extensive use for the cooking of food.

Another resource which could not be calculated was the transport of the products. The above was due to the vendors' lack of control on expenses in locomotion and depreciation of vehicles. In fact, the vendors used their own vehicles to buy ingredients at commercial firms.

Mean value of each ingredient used was calculated. Although, certain alterations may occur (standard deviation) among the interviewed vendors, the set of data was very similar among them. The first similarity to be identified in the composition of costs was the proportion of capital for buying meat and complementary items. The above may be due to two motives that characterize this type of food: beef (hamburgers), chicken meat (fillets and cut chicken), pork (bacon, sausages), coupled to cheese and ham are the most important ingredients of the lunches, the price paid for these ingredients are higher per unit than the price of bread, spices or seasonings.

Percentages also include beverages, namely, soft drinks, beer, juices and mineral water. Soft drinks are evidently the most conspicuous in this category. They are industrialized products and distributed by big manufacturers in contrast to bread distributers. Street food vendor cannot bargain prices on the item soft drinks which constitutes a considerable load on the set of products sold.

The third similarity was the percentage of capital invested for the acquisition of bread. In spite of differences among the vendors with regard to types of bread and their prices, the similarity may be considered common to the entrepreneurs. Bread is the only product which is always bought from the same supplier in contrast to the meat, beverages and complementary products which may be replaced by other brands and manufacturers.

Since, bread is neither standardized nor produced in an industrialized form, the selection and maintenance of the supplier for long periods may be justified due to trust between the buyer and the supplier. It has been noted that due to the low aggregate value of the final products, an increase in the price of bread may compel the vendor to calculate the advantages in diversifying the supplier. However, the supplier is hardly ever replaced since changes may disrupt clients accustomed to the ingredients used. **Stage 2:** The follow-up of expenses throughout a longer time span (4 weeks) provided a more precise idea of the structure of the entrepreneurs' costs. The Tupa entrepreneur had three non-registered employees who worked during certain days of the week to prepare ingredients, clean the premises and arrange the tables.

This specific street food selling site lies in front of the entrepreneur's home. In the evening, the site was removed to the corner of the block of buildings to attend the public. Due to the closeness of his home, the vendor used electricity and water from his own home. Data obtained at this stage showed exactly the size of the entrepreneurship managed by the vendor (Table 3).

The income from the selling of lunches was calculated by estimating the number of lunches sold and the average price of each. The number of lunches sold was calculated by selling estimates (70%) of total number of bread bought (920 loaves). Prices ranged between US \$2.90 and \$4.40 and the mean price for each lunch was US \$3.70.

Several issues jeopardized a better calculation of the true costs. They included the precise cost of water and electricity; lack of pay register of employees who worked sporadically (which constituted an illegality); the impossibility of calculating the fuel used by the vehicle used to buy the ingredients; depreciation of goods such as grill, oven, heat-maintaining apparatus used in the manufacture of the lunches; the entrepreneur's wages.

Table 4 was prepared from data at this stage, constituted by values and the participation of each ingredient with regard to the total capital invested for the preparation and commercialization of lunches. A comparison with the first stage could be undertaken.

Table 3: Operational results from the selling of lunches

Parameters	Values
No. of lunches sold	644.00
Average price	US \$3.70
Income	US \$2,385.19
Cost of ingredients	US \$1,446.13
Gross profit	US \$939.06
Costs in production and operational resources	US \$237.04
Net profit	US \$702.02

For the analysis the values of the Brazilian currency (Real) were converted into US dollars, the conversion of US 1 = R 2.70 (December, 2014); prepared by researchers

Table 4: Price and participation of ingredients in the production of lunches of the entrepreneur under analysis

of the endepreneur under analysis					
Type of ingredients	Price during the month	Percentage			
Meat and complementary items	US \$899.10	50.95			
Bread	US \$318.87	18.07			
Beverages	US \$318.44	18.05			
Salads and vegetables	US \$101.98	5.78			
Ingredients	US \$79.41	4.50			
Wrappings	US \$25.35	1.44			
Bulk material	US \$21.43	1.21			
Total	US \$1,764.56	100.00			

Prepared by researchers

It may be seen that the values above corroborate the initial survey undertaken with the group of entrepreneurs, underscoring the participation of beef, complementary items and bread in the composition of cost for the manufacture of the lunches, besides the beverages. However, researchers perceived that the entrepreneur bought the ingredients based on estimates and experience in the business with special reference to bread bought daily and to bread wastes which cannot be reused on the next day if not sold.

Ingredients are bought from two wholesale shops. The small-sized shop lies close to the entrepreneur's home and the price is higher than in other places. This option was justified due to trust and the habit of the vendor to buy goods within the district; the other shop is bigger and prices are lower. Most ingredients were acquired in the bigger shop although the distance between the shop and the vendor's home requires higher costs spent in fuel and time.

The vendor also bought certain ingredients such as vegetables and other items from other local suppliers who delivered the goods at his home. The strategy was a good strike since many items were bought at low prices. The daily delivery of vegetables in the quantity required is an asset since they are highly perishable and they have to be prepared on the same day.

CONCLUSION

Changes in eating habits, a greater demand for low cost ready products and the pleasure in taking meals outside the home has made the efficient control of costs highly relevant for the entrepreneurs with short financial resources.

Preliminary information collected from street food vendors in two towns identified the form they bought the necessary ingredients, established selling prices and calculated costs and profits. Most entrepreneurs did not have any control of costs or knowledge on the products' costs.

On the other hand, the follow-up with a single entrepreneur during a certain span of time showed that values were not significantly different from those collected with a greater group at a single assessment. One supposes that most vendors have a general notion of costs even though an adequate control is impossible. The buying of ingredients was done on the basis of what the vendor believed would be required for the day.

The structure of direct costs was a good tool to identify the costs of the maintenance of the business and the acquisition of prime matter. The products with the highest importance in the constitution of the product's price were meat and accessories and bread. The former

had the highest participation in price since most vendors opt for renowned brands and quality; the latter was due to differences in the manufacturer and thus clients' loyalty.

However, precise costs such as water and electricity bills and wages of employees, most of whom were members of the family without formal and periodical remuneration were deficient.

The introduction of the worksheet showed that different strategies could be adopted for the acquisition of ingredients characterized by heavy load costs. The worksheet helps in a reduction of expenses such as stocking beverages or making a contract with suppliers of beef and bread for a certain period of time.

If the entrepreneurs adopt the above strategies, they should be aware of two important difficulties: the small amount of meat bought triggers a lack of interest by the supplier to make a business contract and the inexistence of a registry as a firm which incurs in higher costs when an individual person makes a contract with a supplier.

The worksheet showed that food vendors opted in buying small amounts during the week and using the money flow from the previous days. This suggests a lack of sufficient capital for greater amounts (especially for more expensive goods). In fact, great amounts may have their assets such as lower prices from suppliers, decrease of costs and time-saving in displacement to the buying place, better contracts with suppliers with delivery of products at the home.

REFERENCES

- Andrade, L.C.M., A.J.C. Teixeira, G. Fortunato and V. Nossa, 2013. Determiners for the use of strategic managerial accounting practices: An empirical study. Revista de Administracao Mackenzie, 14: 98-125.
- Bryson, J.R. and P.W. Daniels, 2010. The Service Duality and the Rise of the Manu Service Economy. In: Handbook of Service Science, Maglio, P.P., C.A. Kieliszewski and J.C. Spohrer (Eds.). Springer, New York, USA., ISBN-13: 978-1441916273, pp: 79-104.
- Calloni, M., 2013. Street food on the move: A socio-philosophical approach. J. Sci. Food Agric., 93: 3406-3413.
- Cardoso, R.C.V., S.M.C. dos Santos and E.O. Silva, 2009. [Street food and intervention: strategies and proposals to the developing world]. Ciencia Saude Coletiva, 14: 1215-1224.
- Choi, J., A. Lee and C. Ok, 2013. The effects of consumers' perceived risk and benefit on attitude and behavioral intention: A study of street food. J. Travel Tourism Market., 30: 222-237.

- Correa, G.F. and B.M. Campos, 2006. Entrepreneurial behavior and competitiveness: An exploratory study in self-service restaurants. Proceedings of the 30th ANPAD Meeting, September 14-27, 2006, Salvador, Brazil.
- De Iudicibus, S., E. Martins and E.R. Gelbcke, 2003. Manual Accounting of Corporations: Applicable to Other Companies. Atlas, Sao Paulo, Brazil, ISBN: 9788522454556, Pages: 120.
- Draper, A., 1996. Street Foods in Developing Countries: The Potential for Micronutrient Fortification. USAID, New York, USA., Pages: 67.
- Fitzsimmons, J.A. and M.J. Fitzsimmons, 2006. Service Management: Operations, Strategy and Information Technolog. McGraw-Hill, New York, USA., ISBN-13: 9780072982305, Pages: 605.
- Gremaud, A.P., 2007. Manual Economy. Saraiva, Sao Paulo, Brazil, ISBN-13: 9788522446247, Pages: 405.
- Gronroos, C., 1990. Service Management and Marketing: Managing the Moment of Truth in Service Competition. Lexington Books, Lexington, MA., ISBN-13: 978-0669200355, Pages: 320.
- Guigone, A., 2004. La cucina di strada: Con una breve etnografia dello street food genovese. [Thecuisine of theroad: A brief ethnography of Genovese street food]. Mneme-Revista de Humanidades, 3: 32-43.
- Huaman, J.P., 1996. Appropriate technologies for the sale of street foods. Food Nutr. Agric., 17-18: 62-69.
- IBGE., 2005. Urban Informal Economy, 2003. Brazilian Institute of Geography and Statistics, Rio de Janeiro, ISBN: 85-240-3806-3, pp. 1-158.
- IBGE., 2010. Consumer expenditure survey 2008-2009: Expenses, income and living conditions. Brazilian Institute of Geography and Statistics, Rio de Janeiro. http://www.ibge.gov.br/home/estatistica/populaca o/condicaodevida/pof/2008_2009/POFpublicacao.p df.
- IBGE., 2014. Annual survey of service 2012, volume 14. Brazilian Institute of Geography and Statistics, Rio de Janeiro, pp: 1-208. ftp://ftp.ibge.gov.br/ Comercio_e_Servicos/Pesquisa_Anual_de_Servicos/pas2012/pas2012.pdf.
- Kon, A., 2004. Service Economy: Theory and Evolution in Brazil. Elsevier, Rio de Janeiro, Brazil, ISBN: 8535214453, Pages: 288.
- Kotler, P. and K.L. Keller, 2006. Marketing Management. 12th Edn., Pearson Prentice Hall, Inc., Upper Saddle River, NJ., ISBN-13: 978-0131457577, Pages: 816.
- Lovelock, C.H. and L. Wright, 2002. Principles of Service Marketing and Management. Prentice Hall, Upper Saddle River, NJ., ISBN: 13-9780130404671, Pages: 436.

- Lucan, S.C., A.R. Maroko, J. Burnol, M. Varona, L. Torrens and C.B. Schechter, 2014. Mobile food vendors in urban neighborhoods-Implications for diet and diet-related health by weather and season. Health Place, 27: 171-175.
- Megliorini, E., 2012. Costs Analysis and Management. Pearson Prentice Hall, Sao Paulo, Brazil, ISBN: 8576059649, Pages: 350.
- Meirelles, D.S., 2006. Characteristics of Firms and Servisse Sectors According to the Work Process. In: Structure and Dynamics of the Brazil Service Sector, De Negrie, J.A. and L.C. Kubota (Eds.). Institute for Applied Economic Research, Brasilia, ISBN: 858617082-8, pp. 349-376.
- Moeller, S., 2010. Characteristics of services-a new approach uncovers their value. J. Serv. Market., 24: 359-368.
- Portal do Empreendedor, 2015. MEI-individual microentrepreneur: Statistic. http://www.portaldoempreendedor-individual/lista-dos-relatorios-estatisticos-do-mei.
- Ratto, L., 2004. Trade: A World Business. Senac Nacional, Rio de Janeiro, Brazil, ISBN: 8574581429, Pages: 317.
- Rust, R.T. and T.S. Chung, 2006. Marketing models of service and relationships. Market. Sci., 25: 560-580.
- Schoeps, W., 1992. The direct costing method. Revista de Administração de Empresas, 32: 58-66.

- Tinker, I., 1989. Legalizing Street Foods in the Third World: The Right to Eat on the street. Whole Earth Review, Singapore, pp. 72-74.
- Tinker, I., 1999. Street foods into the 21st century. Agric. Hum. Values, 16: 327-333.
- Tinker, I., 2003. Street Foods: Traditional microenterprise in a modernizing world. Int. J. Politics Cult. Soc., 16: 331-349.
- WHO., 1996. Essential safety requirements for street-vended foods. Food Safety Unit, Division of Food and Nutrition, WHO/FNU/FOS/96. http://www.who.int/foodsafety/publications/fs_management/en/streetvend.pdf.
- WHO., 2010. Basic steps to improve safety of street-vended food. INFOSAN Information Note No. 3/2010, World Health Organization (WHO), Geneva, June 2010, pp. 1-5.
- Wernke, R., 2004. Cost Management: A Practical Approach. Atlas, Sao Paulo, Brazil, ISBN: 8522436614, Pages: 257.
- Winarno, F.G. and A. Allain, 1991. Street foods in developing countries: Lessons from Asia. Food Nutr. Agric., 1: 11-18.
- Yazigi, E., 2000. The World of Side Walks. FFLCH/USP., Humanitas, Sao Paulo, Brazil, ISBN: 8586087998, Pages: 124.
- Zeithaml, V.A., A. Parasuraman and L.L. Berry, 1985. Problems and strategies in services marketing. J. Market., 49: 33-46.