



**GOCE DELCEV
UNIVERSITY**

**FACULTY OF NATURAL AND
TECHNICAL SCIENCES**

NATURAL RESOURCES AND TECHNOLOGY

**ISSN: 1857-6966
DOI: 10.46763/NRT**

No 2

Volume XVII

DECEMBER 2023

UNIVERSITY “GOCE DELCEV” – STIP
FACULTY OF NATURAL AND TECHNICAL SCIENCES



Natural Resources and Technology

DECEMBER 2023

VOLUME: XVII

NO. 2

ISSN 1857-6966

NATURAL RESOURCES AND TECHNOLOGY

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CONTRIBUTION TO THE RESEARCH FOR IMPROVING THE PROCUREMENT PROCESS AND DECISION-MAKING IN PROCUREMENT

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Abstract

Procurement is one of the basic functions of any enterprise. Without them, no company would survive. In this scientific paper, we carried out research in the field of catering, that is, we emphasize how important purchases are in catering in every company, as well as how purchases are made regardless of the company's activity, and also how purchases are made in hotel-restaurant enterprises because they are necessary for the company to survive, to satisfy the demands of the consumers, that is, to satisfy the customers. We analyzed the behavior of the employees in the companies during the procurement process, how they face the risks in the procurement process and, most importantly, we can see how the purchases of a hotel-restaurant company enable success and prosperity in the company itself.

Key words: *Procurement, hotel-restaurant enterprise, supplier, procurer, procurement, decision-making and supply.*

INTRODUCTION

Procurement is the essential link between organizations in the supply chain and it provides the mechanism for coordinating the flow of materials between buyers and suppliers. At each point in the supply chain, procurement transmits feedback to describe what buyers want and returns a message to say what suppliers have available [1].

The relationship with suppliers is subject to change and is different in terms of job types. Procurements are directly responsible for a large portion of a company's costs, and relatively small improvements can yield significant benefits.

Every company aims to increase profit and competition. In order to achieve a high degree of efficiency in an organization, it is necessary to make good decisions in purchasing, i.e., procurement. The price of the service depends on several factors: the size of the company, in our case a restaurant or hotel, tasks, procurement, number of employees, training of employees, manager with procurement skills, etc. [2].

Properly conducted procurement is carried out in such a way that there is continuity of monitoring for the procurement of materials and services used in the business, and minimal risk in the same, thus taking back control of the entire procurement process.

PROCUREMENT DECISION MAKING

The process of good execution is much easier after the receipt of a request, data analysis, deadlines and when the procurement specification is well written. Furthermore, when submitting the request to the seller, it is important to include data about the goods being procured related to quality, delivery dates, price, etc., and attachments can be made to avoid ambiguities or errors [3].

In addition, purchases are usually reported to known suppliers and if there is a need for new suppliers, they should undergo verification through appropriate testing methods which can be classified as quality of goods, price, delivery, and method of payment. Once the ordered supply is procured, it is subject to verification and the procurer is responsible for the supply applied for [4].

When checking for the Selection of the most suitable supplier due to a tender, data from orders and delivery notes, quality and quantity control, and receipt of goods after successful verification of complaints are considered if there are deviations.

Supply – refers to all input required for the functioning of the system, that is, it refers to all input and functional objects related to the execution of these inputs [5]. The types and forms of input components should be defined in terms of quality, quantity, time of need, resources and cost, to ensure economical and efficient functioning of the business system.

Supply processes include suppliers, various business functions (procurement, construction and development, production, sales, logistics), and freight forwarders, trade organizations, and consumers.

An important prerequisite for successful negotiations is good preparation, which includes deciding what to negotiate, setting goals, negotiating strategies, etc. The conclusion of the sales contract is the result of the consent of both parties, and, according to that contract, the seller undertakes to deliver the goods under certain conditions and the buyer will take over and pay for the goods [6].

APPLICATION OF THE AHP METHOD FOR SELECTING THE MOST FAVORABLE BEER SUPPLIER

Brief description of the AHP method

The Analytical Hierarchy Process (AHP) method was developed by Thomas Saati in the early seventies of the 20th century and is a tool in decision analysis [7]. It was created to provide assistance to decision-makers in solving complex decision-making problems that involve a large number of decision-makers, a large number of criteria, and in multiple time periods. Four stages for the application of the method are recorded:

- structuring the problem;
- data collection;
- evaluating relative weights;
- determining the solution to the problem [8].

Selection of the most favorable supplier of beer

When defining the multi-criteria decision-making model for choosing the most favorable supplier of beer for a small restaurant, we defined the following criteria:

K1: Price (den./bottle) → min

K2: Delivery time (hours) → min

K3: Quality (qualitative criterion) → max

K4: Terms of payment → max

Criterion K1 - Purchase price of beer is a variable quantity and it depends on both the quality of the beer and the brand of the beer itself. The prices of certain brands of beer, for packaging in a 0.33-liter bottle, which will be considered in this paper, are:

- "Skopsko" beer - 35 denars
- "Carlsberg" beer - 57.5 denars
- "Beer "Pilsner Urquell " - 61.5 denars
- "Jelen" beer - 35.5 denars.

Criterion K2 - Delivery time of the beer is also a variable size that depends on the supplier's production capacity as well as on its location, possession of means of transport for distribution and communication links. The delivery time of certain brands of beer from appropriate suppliers that will be considered in this paper amounts to:

- "Skopsko" beer - 24 hours
- "Carlsberg" beer - 24 hours
- "Pilsner Urquell " beer - 8 hours
- "Jelen" beer - 8 hours.

Criterion K3 - Quality of beer is a variable size that depends on several parameters, among which we could include: consumption of beer, awards won at beer fairs, received quality certificates, brand of beer, etc. It is in the interest of the restaurant to procure the best quality beer for its greater consumption.

Criterion K4 - Terms of payment is also a variable size that depends mostly on the financial condition of the supplier company, and it is in the interest of the restaurant that those terms are as

favorable as possible for it, that is, the payment time lasts longer. The payment terms offered by the respective suppliers for the individual brands of beer are:

- ✓ "Skopsko" beer - payment term 15 days
- ✓ "Carlsberg" beer - payment term 10 days
- ✓ "Pilsner Urquell " beer - payment term 45 days
- ✓ "Jelen" beer - payment term 40 days.

After defining the criteria for decision-making, the decision-making alternatives are defined:

Alternative 1: D1 - Supplier Oaza Extra Skopsko - Stip, for "Skopsko" beer,

Alternative 2: D2 - Supplier Kik Kom - Kocani, for "Carlsberg" beer.

Alternative 3: D3 - Supplier Joe Kom - Stip, for beer "Pilsner Urquell ",

Alternative 4: D4 - Supplier Tekoma Distribution - Stip, for "Jelen" beer.

Table 1. Ranking of alternatives

Ranking of alternatives		
	Total	Rank
A₁	0.3225	1
A₄	0.2209	2
A₂	0.2162	3
A₃	0.2130	4

Table 2. Ranking of criteria

Ranking of criteria		
	average value	Rank
K₁	0.5343	1
K₂	0.0985	3
K₃	0.3175	2
K₄	0.0493	4

The consistency index (CI) is calculated with the expression and is:

$$C.I. = \frac{\lambda_{max} - n}{n - 1} = \frac{4.1585 - 4}{4 - 1} = \frac{0.1585}{3} = 0.0528,$$

where:

λ_{max} – maximum or characteristic value of the matrix,

n – matrix size (number of matrix rows), n = 4.

In the ANR method, the so-called consistency ratio which is a comparison between the consistency index and the random consistency index, or in formula: $C.R. = \frac{C.I.}{R.I.}$

If the consistency ratio (C.R.) value is less than or equal to 10%, the consistency is acceptable. If the consistency ratio is greater than 10%, the subjective assessment should be revised and the comparison matrix should be re-created.

$$1) C.R. = \frac{C.I.}{R.I.} = \frac{0.0279}{0.89} = 0.0313 \times 100 = 3.13 \% < 10\%$$

The largest eigenvalue $\lambda_{max} = 4.0838$, the consistency index **C.I. = 0.0279**, the consistency ratio

C.R. = 0.0313, since it is less than 0.10, it follows that the level of inconsistency is acceptable.

According to the criterion for the most favorable price of beer, Skopsko beer is ranked best - A1.

$$2) C.R. = \frac{C.I.}{R.I.} = \frac{-0.0002}{0.89} = -0.0002 \times 100 = -0.02 \% < 10\%$$

The largest eigenvalue $\lambda_{max} = 3.9994$, the consistency index **C.I. = -0.0002**, the consistency ratio **C.R. = -0.0002**, since it is less than 0.10, it follows that the level of inconsistency is acceptable. According to the criterion for the delivery time of the beer, the best ranked are Beer "Pilsner Urquell " and Beer "Jelen" - A3 and A4.

$$3) \text{ C.R.} = \frac{C.I.}{R.I.} = \frac{0.0203}{0.89} = 0.0228 \times 100 = 2.28 \% < 10\%$$

The largest eigenvalue $\lambda_{\max}=4.0610$, the consistency index **C.I.=0.0203**, the consistency ratio **C.R.=0.0228**, since it is less than 0.10, it follows that the level of inconsistency is acceptable. According to the beer quality criterion, the best ranked beer is Carlsberg Beer - A2.

$$4) \text{ C.R.} = \frac{C.I.}{R.I.} = \frac{0.0269}{0.89} = 0.0302 \times 100 = 3.02 \% < 10\%$$

The largest eigenvalue $\lambda_{\max}=4.0809$, the consistency index **C.I.=0.0269**, the consistency ratio **C.R.=0.0302**, since it is less than 0.10, it follows that the level of inconsistency is acceptable. According to the criteria for conditions of payment, for the most favorable beer the beer "Carlsberg" - A2 is ranked.

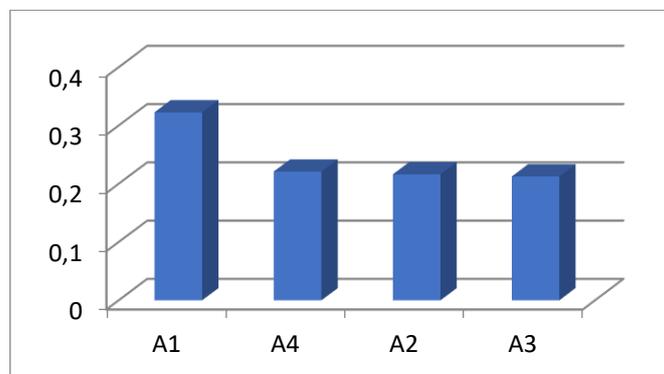


Figure 1. Final ranking of the alternatives

Final optimal ranking of the alternatives - Based on the obtained results from the ranking of the alternatives according to the highest value, the most acceptable, that is, the most favorable alternative is the alternative A1, that is, **Skopsko beer with the highest weight value of 0.3225**.

CONCLUSION

The task of the person in charge of procurement in an organization is to procure and be responsible for the goods that he/she receives and sells. The number of people responsible for purchases depending on the winter and summer period in most hotels and restaurants does not change at all. Hotel-restaurant enterprises should invest more in the knowledge of employees through training and seminars. Employees and those responsible for procurement in hotel-restaurant enterprises are adequately educated, but very little is invested in their knowledge.

Most suppliers analyze which suppliers they will cooperate with in the long term, but in some larger restaurants or hotels it is decided by the manager of the organization, that is, the hotel or restaurant.

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**ПРИДОНЕС ВО ИСТРАЖУВАЊЕТО ЗА ПОДОБРУВАЊЕ НА ПРОЦЕСОТ НА
НАБАВКИ И ДОНЕСУВАЊЕТО ОДЛУКИ ВО НАБАВКАТА**
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Резиме

Набавките се една од основните функции на секое претпријатие. Без нив, ниту една компанија не би опстанала. Во овој научен труд извршивме истражување од областа на угостителството, односно нагласуваме колку се важни набавките во угостителството, како и на секоја компанија, како и на кој начин се реализираат набавките без разлика на дејноста на компанијата, а исто така и како се вршат набавките во хотелско-ресторанските претпријатија бидејќи се неопходни за компанијата да опстане, за да ги задоволи барањата на потрошувачите, односно да ги задоволи клиентите. Го анализиравме однесувањето на вработените во претпријатијата при процесот на набавки, како се соочуваат со ризиците во процесот на набавки и што е најважно можеме да согледаме како купувањата на хотелско-ресторанска компанија овозможуваат успех и просперитет во самата компанија.

Клучни зборови: *набавка, хотелско - ресторанско претпријатие, добавувач, снабдувач, снабдување, одлучување и снабдување.*