



Institut for Economic
 Promotion,
 Austrian Economic
 Chamber,
 Vienna, Austria



T.E.I. Thessaloniki
 Greece



Department of Tourism
 Management

UDC 65.012.34:338.48
Preliminary communication
Received: 10.07.2007

LOGISTICS PROCESSES IN A TOURISM DESTINATION*

Zoran Ivanovic
Tea Baldigara
 University of Rijeka, Croatia¹

Abstract: The purpose of this paper is to underline the importance of understanding tourism destinations as organisational systems, examine logistics as a system or subsystem of the tourism destination system, and identify and define the logistics processes that are involved in creating the product of a tourism destination. The paper is based on the assumption that logistics processes play an important role in shaping the offering of a tourism destination. Understanding tourism destinations as organisational systems can help in optimising logistics flows, and this is becoming a vital precondition to creating a well-designed offering for a tourism destination.

Key words: systems theory, process approach, tourism destination as a system, logistics as a system, logistics processes.

INTRODUCTION

Notably, a partial approach to analysing tourism destinations prevails in science. This approach is based on studying a tourism destination not as a whole or a system, but rather as a series of separate flows that participate in creating a tourism product. This way of looking at a tourism destination does not contribute to optimising the flow of people, goods, information, waste and energy, that is, all the flows that take part in shaping a tourism destination's offering.

* The research results derive from the scientific project "Logistics Flows Managing in the Tourism Destination" financially supported by the Ministry of Science, Education and Sports of Republic of Croatia.

¹ **Zoran Ivanovic**, Ph.D., Full Professor, **Tea Baldigara**, Ph.D., Assistant Professor, University of Rijeka, Faculty of Tourism and Hospitality Management in Opatija, Croatia.

Hence, this paper will look at the tourism destination as a system and at logistics as an organisational system or subsystem of the tourism destination system, depicted by the basic elements – logistics processes – that enable the system to operate and accomplish its goals. An analysis of logistics processes entails the acceptance of a process approach to analysing organisational systems, together with the systems theory from which the process approach was developed. In the following section, the paper first gives an outline of the logistics concept in analysing tourism destinations. To make issues relating to logistics systems and logistics processes easier to understand, the third part of this paper focuses on the theoretical postulates of the systems theory and the process approach. It underlines the importance of the systems theory, lists the fundamental characteristics and special features of the process approach, and provides a detailed description of processes as elements of organisational systems. The fourth part of the paper presents the logistics of a tourism destination as an organisational system and depicts its characteristics. In its final section, the paper outlines processes as elements of logistics systems.

1. A LOGISTICS CONCEPT IN ANALYSING THE TOURISM DESTINATION

In terms of etymology, the word *destination* is derived from the Latin *destinatio* and means “a place set for the end of a journey”. Today, many definitions of tourism destination appear in the professional and scientific literature. For example, Inskoop and Kalenberger (Inskoop, Kalenberger, 1992) define a tourism destination as a specific, broader or narrower spatial unity disposing of tourist facilities and in which tourist traffic is realised, as well any region in which a number of tourist centres are located.

As such, a tourism destination encompasses numerous and diverse tourism facilities and services; these also represent the travel motivations of tourists and are therefore vital for producing and selling tourism services. These tourism facilities and services can be classified into several groups (Mrnjavac, 2006):

- Tourism facilities and services that are of primary importance to a tourism destination, such as hospitality and transportation services;
- Facilities and services that contribute to the quality of services provided in a destination, such as sports and recreational facilities, entertainment and events, shops and repair services, educational programs for promoting and refreshing knowledge, banking and other financial services, insurance companies, post offices, telecommunication services, advertising and sales, cultural and historical monuments, transportation infrastructure and other infrastructure, transportation service and others.

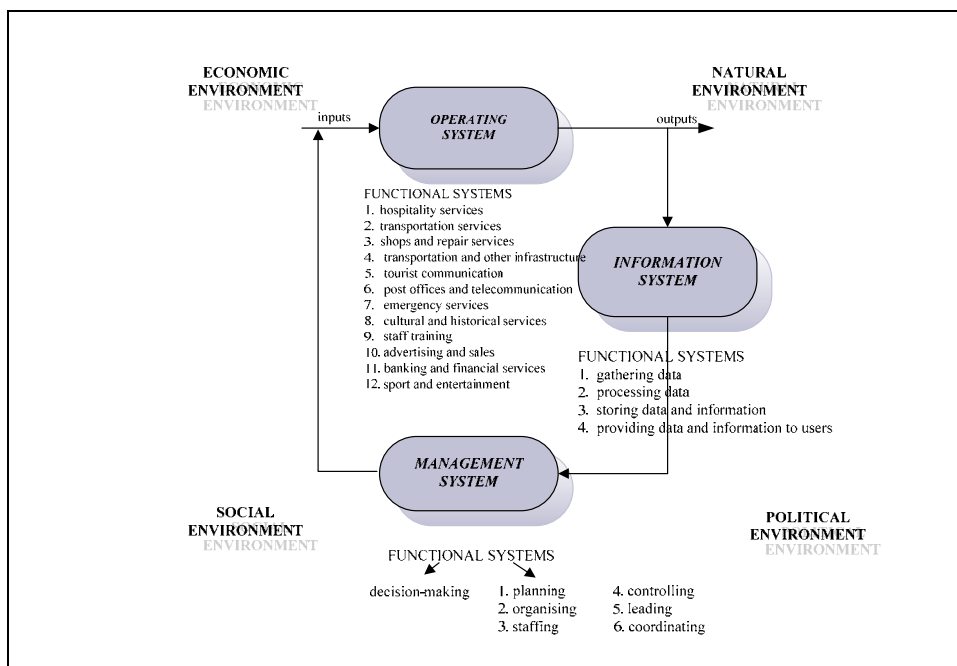
To provide quality tourism-services to the visitors of a destination, it is necessary to secure (Mrnjavac, 2002.):

- the supplying of hotels, hospitality facilities and other tourism facilities;
- the supplying of shops;

- the physical availability of accommodation and hospitality facilities and shops;
- the physical availability of cultural and historical buildings, sports and recreational facilities;
- the physical availability of travel agencies, post offices, health care and dental care centres;
- the availability of passenger terminals of various branches of transportation.

To ensure that these factors of tourism-service quality in a destination are linked, integrated and available to tourists, it is necessary to coordinate all flows of material, information and people in a given geographical area determined by a destination's boundaries, and to perceive the destination itself as an organisational system or business and services system (Figure 1). Perceiving a destination through the overall network of processes that exist within it makes it possible to optimise the way in which the system's targets are accomplished.

Figure 1: The tourism destination as an organisational system



Source: Prepared by the author after Mrnjavac, E. (2006), "Promet u turizmu", University of Rijeka, Faculty of Tourism and Hospitality Management, Opatija, p. 34, after Crista, I. (2001), "Globalisation and Competitiveness of the Croatian Tourism Cluster".

Figure 1 displays a tourism destination as an organisational system. How a destination operates will depend upon a series of processes that are involved in creating tourism services. This leads to a logistics concept in viewing a destination. The

logistics of a destination implies optimising all flows of material (raw material, semi-products, products and waste), information and people (tourists, residents, day trippers) within the destination with the aim of maximising company profits, improving the protection of the environment as a non-renewable resource and enhancing the offering of a quality tourism-product (Mrnjavac, 2006).

2. THE SYSTEMS THEORY AND PROCESS APPROACH – THEORETICAL BACKGROUND TO ANALYSING LOGISTICS PROCESSES

Only by adopting the postulates of the systems theory and the process approach is it possible to identify and analyse logistics processes as elements of a logistics system. The following section outlines the importance and characteristics of the systems theory and the specific features of the process approach, and it describes the fundamental attributes of the process as an element of organisational systems.

2.1. Systems theory

In his book “Cybernetics and Society”, Norbert Wiener, father of cybernetics, pointed out that “the beginning of the twentieth century was not merely the end of an era or a kind of political transition. It was a time of stagnation in social and technological development and a time of accumulated demands that could not be solved with earlier mindsets and old methodological approaches and methods”. (Uzelac, 1994)

In this particular historical moment, vital change needed to take place to enable the further development of science and society. This change was effected in the twentieth century that brought in its wake a turnaround in thinking and directed science towards a different way of perceiving nature. It was in this time that the systems theory was developed in response to new knowledge and understanding.

The General System Theory is one of the first and basic systems sciences. Among the first scientist to deal with the systems theory and among those who deemed that the amount of information obtained from the observation of parts is insufficient to perceive and understand the whole was the famous Greek philosopher Aristotle, who is said to have claimed: “A whole is more than the sum of its parts”. Only in the mid twentieth century prior to World War II did Ludwig von Bertalanffy, an American biologist, draw the attention of scientific circles to this fact that was later to be instrumental to the development of the systems theory. For the first time, Bertalanffy explored and scientifically addressed the issues of the systems theory and published his “General System Theory”. Within a short while, Bertalanffy gained many supporters for his ideas among the scholars of his time and together they established the Society for General System Theory in 1954. This year is officially considered the year of the creation of the systems theory as a scientific discipline. The greatest merit of the General System Theory is that it pointed to and demonstrated the objective existence of systems regularities and the necessity to explore them. It also provided a basic conceptual framework and approach to solving system problems and understanding system occurrences.

The systems theory can, therefore, be defined as “a scientific discipline involved in studying complex occurrences called systems. It emerged from the need of discovering scientific and practical methods that could be used, in a scientific way, to analyse and solve those problems for which satisfactory results could not be obtained using the conventional and customary scientific methods developed in other fields of science”. (Radosevc, 2001)

The systems theory is based on the principles of systems thinking, which perceives each problem of part of the real world as a system and is engaged in the general study of systems and systems methodology. The systems theory is characterised by a systems approach to problem solving, and for a scientific discipline to belong to the systems theory it must meet the following criteria:

- In problem solving, it must be based on systems thinking;
- In problem solving, it must apply a systems approach;
- Its research and results must contribute to furthering the development of the systems approach.

In general, systems approach is a method of accomplishing work (scientific, professional) that is based on using the elements of the General System Theory. It is up to the researcher to define what will be considered a system and to determine the decomposition of the system into its elements (parts, subsystems of various levels), define the relationship between these elements (the structure of the system) and set the system's boundaries.

When using the systems approach to study business systems, the functionalist principle, the holist principle and the engineering approach are applied.

A system is a fundamental category of systems thinking and the General System Theory, and as such, it represents a whole constituted of parts, the interrelations of which are founded on specific principles and laws. A system is a whole, the parts of which are interconnected by the impact of the elements of a specific theory or the impact of specific principles. Any set of interconnected ideas, materials or living beings that presents a fairly comprehensive whole can be considered a system (Uzelac, 1994). According to the systems theory, the attributes of a system are:

- targets: a desired state or the output of an organisational system
- structure: the totality of established relationships and links among various parts of the system
- process (operation and management)
- inputs
- outputs
- results and
- feedback.

Each of man's mental constructs, material constructs, as well as technical constructs represents a system. The broad scope of this concept encompasses all of humankind, its past, present and future, and marks occurrences in nature and their manifestations.

The premise to the existence of a system is the fact that the system's very elements represent its contents, while natural laws that govern the creation and behaviour of natural systems provide such systems with qualitative characteristics. The principles on which they are constructed or according to which they operate are the common attributes of systems that are the work of man's creativity.

The fundamental qualitative attributes of business and organisational systems are based on the principles of systems mentioned above. Scholars agree that, in principle, there are three types of systems: natural, technical and organisational systems.

Natural systems include geological, atmospheric, cosmic and biological systems. These systems emerge, develop and die out based on and in accordance with the laws of nature.

Technical systems represent a composition of elements in alignment with one natural law with the purpose of providing resistance to other natural laws.

All the material, mental and moral flows that the human mind has created since the beginning of humankind represent organisational systems. Natural and technical systems exist and operate within organisational systems as their subsystems. Any combination of natural (biological) and technical systems constitutes an organisational system. To the second category of organisational systems, with regard to their structure, belong systems composed exclusively of natural (biological) systems – sports clubs, religious communities, political parties and so on. The third structure-based category of organisational systems consists of systems that are not composed of either natural or technical systems. These are systems in which man has created not only the elements of the system, but the organisational system itself as well.

2.2. Process approach

For a long time now, modern approaches to management have been the focus of attention due to their high cost of implementation, their failure to produce the quality levels that the market demands, reduced competitiveness and the lack of motivation in employees. The need for a new approach to management is constantly growing. The process approach to analysing and managing organisational systems has emerged in response to the turbulent and changing conditions of business. Developed from the systems theory, the process approach entails analysing an organisational system starting with the network of its primary processes and their interaction.

It is essential, therefore, to view organisations from the basis of their existence – their processes – and to use this basis to make them capable of continuously improving the efficiency, effectiveness and flexibility of the system. This is not about rejecting Weber's bureaucratic theory of organisation, but rather about creating structures that can sustain the integrity of process flows.

Organisations come to be viewed in a novel way, different from the previous way which perceived an organisation as a set of specialised functions, coordinated and oriented to accomplishing the goals set forth. Organisations are now viewed as systems and are analysed through the actual flow of their activities, that is, through processes.

The quest for quality has compelled most modern managerial philosophies and new organisational tools (*Just-in-Time, Activity Based Management, Total Quality Management, Six Sigma* and many others) to apply a systems approach to designing and organising that regards systems as process flows. Any organisation wishing to survive and succeed needs to elaborate and adopt organisational technologies that simultaneously impact on all dimensions of a system's activity and seek to globally optimise all processes. The transition from perceiving an organisation as a totality of functions to seeing it as a system, in light of the network of processes unfolding within it, entails redefining the modality of management.

The depicted approach to analysing organisational systems is called the process approach. Its fundamental feature is that it views organisations as systems, that is, a network of mutually interactive process flows. This is a pragmatic and fairly flexible approach, the application of which makes it possible to analyse the complexity of the process network that exists within a system, beginning with the process flows that create results for the marketplace, and continuing with those processes whose results enable the system to function.

2.3. Conceptual attributes and basic features of processes

Processes, as one of the elements of an organisational system, have recently become the subject of extensive review, and the area that process issues encompass is exceptionally broad. The term *process* comes up frequently in the literature, as well as in everyday life. In terms of etymology, the word has two meanings (Cortelazzo, Zolli, 1985):

- a sequence of interrelated occurrences, and
- a method for accomplishing a specific goal.

Because its root is derived from the verb *procedere* (lat. to advance, continue, result), the word *process* connotes "a progression and sequence of occurrences", as well as "activity, behaviour". Difficulties in defining a process arise from the fact that the word implies a sequence of activity (*workflow*), as well as cycles of behaviour and the standards that govern them (*coordination*).

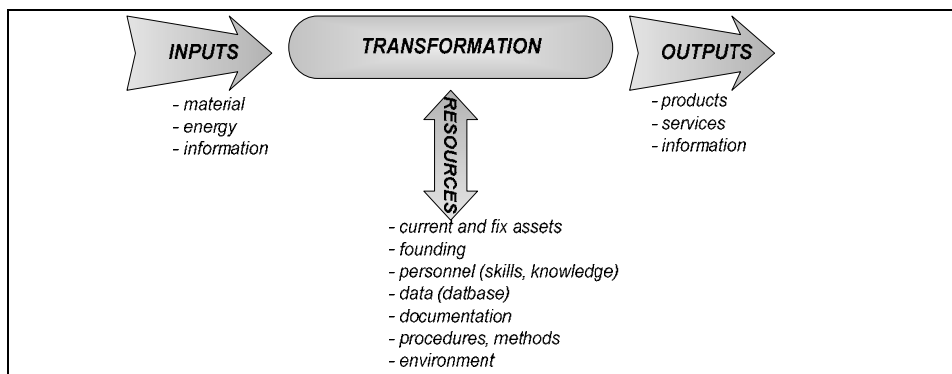
In the contemporary literature, there are two schools of scholars, each with their own understanding of the term. One school perceives a process as a sequence of activities with the purpose of creating value. The other sees a process as the coordination of activities, the execution of which involves exploiting and using skills, knowledge and practises. Both of these meanings have been preserved in the practise of organisational activities. All process definitions base process analysis on the existence of clearly described and defined inputs and outputs: products, services or transactions. Therefore, *process* is used to define all the different activities that ensure outcome. A process is a set of interrelated or interactive activities by which inputs are transformed into outputs. The mistake of simplifying the definition of a process or perceiving a process as merely a sequence of activities should not be made: a process is a dynamic element with continuous feedback that is tied to achieving the outcome desired. Regardless of which definition of process is chosen, it is vital not to limit its meaning or to overlook its complexity by applying, at times incomplete, academic and

theoretical explanations that fail to underline the significance of process for an organisation. Whatever its definition, a process implies:

- organising work to accomplish goals;
- taking multiple steps and coordinating people;
- having the elements of design, research and development that make the process competitive;
- having a management that supports the creation of a process-oriented organisation.

Generally speaking, a process represents work by which a system's inputs, with the help of specific resources, are transformed into its outputs. In this paper, a process is considered to be (Tosalli, Conti, Petigiani, 1990) *a series of organised activities, intended for achieving a predetermined outcome, based on inputs, available resources and consumer needs*. Figure 2 illustrates the general model of a process.

Figure 2: General model of a process



Source: Translated and prepared after Tosalli A., Conti T. and Pettigiani A., *La qualita' nel servizio*, Bariletti Editori S.r.l., Roma, 1990, p. 121.

The definition indicates that the fundamental components of a process are its inputs, outputs, transformation and resources.

Inputs are anything that is the result of other processes (within or outside of an organisation) and which the given process uses to produce its outputs, as for example semi-products, raw materials and products.

Outputs are the outcome of transformation. Outputs are, in fact, the things that a consumer needs: the value that the outcome holds for consumers is the only parameter for its evaluation. Outputs compatibility or process efficiency is a measure of the degree to which consumer needs are met.

Transformation is the activity and act of transforming inputs into outputs using resources. Notably, every organisational activity is the element of some process. In many organisations the lack of such a global vision can lead to quite a few problems, especially when attention is attached to individuals, unsubstantial details or isolated elements, letting the systems approach to problems drop out of focus.

Resources, as the elements of a process, are expendable and enable the transformation of inputs into outputs. Human resources are a vital resource. In certain processes, such as designing, human resources are of crucial importance. Assets, either fixed or current, are engaged in all processes, in ratios that vary according to the nature of the process. Documentation, practises, instructions, and staff training and education have a great impact on the proper development of a process.

Apart from fundamental components, processes also possess specific features or properties that are taken into consideration when making interventions in terms of organisation and management. Some of these features are:

- Process Capability: producing uniform outputs;
- Process Efficacy: producing outcome;
- Process Reliability: maintaining the stability of outcome over time;
- Process Flexibility: altering capabilities to adjust to change;
- Process Variability: displaying variations.

Processes transform input elements into outcome. They bring about a change in state. They capture input “information” and integrate it into the sequence of activities, during which this information is transformed in a way that will produce outcome – a product² of desired properties. Every individual process has an aim, the achievement of which is determined through either a qualitative or a quantitative assessment of its outcome. A process’s transformation activities are structured in such a way that enables the desired outcome to be achieved through a combination of inputs and resources. Obviously, this means that a process needs to receive the right input information in precisely defined activities and in appropriate quantities and modalities.

A process is, therefore, a dynamic concept, linked to a specific target that needs to be reached and to one or more activities. Processes contain elements and activities required for transforming inputs into outcome, in alignment with their goals. There are a number of activities, each requiring the appropriate resources for fostering efficient transformation.

3. LOGISTICS SYSTEM AND LOGISTICS PROCESSES

Optimising the flow of people, goods, information, energy and waste is a precondition to improving the quality of a destination’s product. Defining a destination as a system enables logistics to be analysed as a system as well.

3.1. Logistics as a system

A logistics system is a set of elements of a technical, technological, organisational, economic and legal nature aimed at optimising the flow of materials, goods, information, energy and people in a specific geographical area with the purpose of achieving predetermined goals. The process approach, based on the systems theory,

² According to the provisions of ISO standard 9000:2000, Quality management systems - Fundamentals and vocabulary, item 3.4.2, a product is considered to be any outcome of a process. There are four general categories of products: services, software, hardware and processed materials.

makes it possible to understand and analyse the characteristics and properties of logistics as an organisational system. In the light of the process approach, a logistics systems can be regarded as an organisational system that is complex, open (being in permanent interaction with the environment, a relationship that inhibits entropy, its helps to direct resources towards specific targets), dynamic (capable of dynamically maintaining a state of equilibrium and adapting to new circumstances), synergetic/holistic (meaning that the whole is more than the sum of its parts) and stochastic, and composed of tens or hundreds of employees, machines and devices and a certain number of organisational units and business partners.

A logistics system with its complex goals, technical elements, human and social potential can survive, operate and reach its targets only providing it exists and performs as a system. Being an open system, it does not behave according to natural laws, but rather according to its own specific principles and rules of behaviour. These principles are of a teleological nature and they are set in such a way as to guide the behaviour of an organisational system towards achieving its goals.

Logistics as an organisational system is composed of a series of interrelated and interactive process flows across a number of levels. Apart from the highly dynamic and change-susceptible environment in which this system operates, a major feature of the logistics system as a socio-economic system is the pronounced complexity of its processes. This is a pragmatic and fairly flexible approach, the application of which makes it possible to analyse the complexity of the process network that exists within a system, beginning with the process flows that create results for the marketplace, and continuing with those processes the outcome of which enables the system to function. Managing such a system is aimed at accomplishing all of the planned goals, goals that are the result of the mission as the system's *raison d'être*. The outcome of a process determines the extent to which goals have been achieved.

3.2. Logistics processes in a tourism destination

Having defined a tourism destination and presented the theoretical postulates of the systems theory and the process approach, the logistics processes within a destination can now be defined and identified.

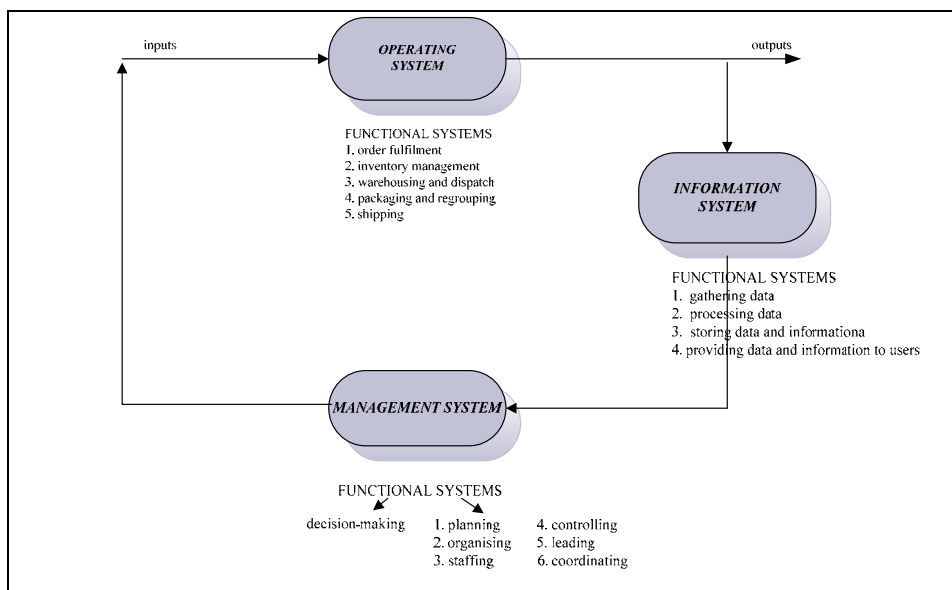
Segestlija and Lamza-Maronic (Segestlija, Lamza-Maronic, 2000) cite that logistics systems are systems for the space-time transformation of goods and the processes unfolding within them, logistics processes.

A logistics system operates as an organisational system in which the following processes within a destination are organised and carried out (Segestlija, Lamza-Maronic, 2000):

- order fulfilment,
- inventory management,
- warehousing and dispatch,
- packaging and regrouping,
- transport.

Each system can be decomposed into lower-level systems. Every system level has its own processes. By decomposing the organisation, as a system, into a number of levels, the processes at these levels become apparent. This type of decomposition is known as system decomposition, and in terms of organisation, it is generally neutral, unlike organisation decomposition in which an organisation is viewed as a group of organisational units. As an organisational system, logistics can be decomposed into lower-level systems called functional systems, which can further be partitioned into subsystems (Figure 3).

Figure 3: Logistics as an organisational system



Source: after Glans, B.T.; Grad, B.; Holstein, D.; Meyers, W.E.; Schmidt, R.N., Management Systems, Holt, Reinhart and Winston, Inc. New York, 1988, pp. 225-230.

Logistics, as an organisational system, can be decomposed into segment systems at the lowest level. These are the operating system, information system and management system, as illustrated in Figure 3. The functional systems listed in Figure 3 can be considered **core processes** (key business processes), and functional subsystems, their activities.

The management system is required for logistics, as a system, and its subsystems to operate. The information system plays a special role by connecting the operating system to the management system. The information system is responsible for gathering, processing and presenting information from the operating system. Decisions are made in the management system, but prepared and carried out in the operating system.

Once these core processes have been identified and classified, the next step is to identify the processes of which they consist. This is a complex task, which can be accomplished by decomposing the core process from the previous phase into lower-level processes and identifying process owners.

The depicted decomposition of a tourism destination as an organisational system is a system decomposition and, as such, it is neutral in terms of organisation. Following process reasoning, it is possible to similarly decompose the other core processes, functional systems and subsystems.

4. CONCLUSION

The paper *Logistics Processes in Tourism Destinations* was written within the framework of the research project “Managing Logistics Processes in Tourism Destinations” and it presents a specific theoretical foundation for further theoretical, as well as empirical, research.

In today’s turbulent conditions of tourism operations and growing competition and globalisation, tourism destinations must be capable of adapting if they are to survive and perform well. Modern tourists are demanding top-quality, selective and personalised services. Logistics processes exert a great impact on creating this kind of tourism offering in a destination. Hence, this paper focuses on presenting and analysing the logistics processes that can be found in a destination

To provide the best offering possible, it is necessary to optimise all the flows – in particular, logistics flows – that exist within a destination. Only by accepting the principles of the systems theory and the process approach is it possible to optimise the tourism destination as a whole, as well as the flows of people, energy, information and waste within it. This entails perceiving a tourism destination as a system, with logistics as its subsystem.

REFERENCES

- Cortelazzo, M., Zolli, P., *Dizionario etimologico della lingua italiana*, Zanichelli, Bologna, 1985.
- Glans, B.T., Grad, B., Holstein, D., Meyers, W.E., Schmidt, R.N., *Management Systems*, Holt, Reinhart and Winston, Inc., New York, 1988.
- Kljajic, M., *Teorija sistemov*, Univerza v Mariboru, Fakulteta za organizacijske vede kranj, Moderna Organizacija, Kranj, 2002.
- Magas, D., *Turisticka destinacija*, Sveuciliste u Rijeci, Hotelijerski fakultet Opatija, Opatija, 1997.
- Mrnjavac E., *Promet u turizmu*, Sveuciliste u Rijeci, Fakultet za turisticki i hotelski menadzment u Opatiji, Opatija, 2002.
- Mrnjavac, E., *Optimizacija sustava hrvatskih kontejnerskih luka*, Visoka pomorska skola i Fakultet za turisticki i hotelski menadzment u Opatiji, Rijeka-Opatija, 2001.
- Mrnjavac, E., *Promet u turizmu*, Sveuciliste u Rijeci, Fakultet za turisticki i hotelski menadzment u Opatiji, Opatija, 2006.
- Radosevic, D., *Osnove teorije sustava*, Nakladni zavod Matice hrvatske, Zagreb, 2001.
- Segestlija, Z., Lamza-Maronic, M., *Distribucija, logistika, informatika*, Sveuciliste Josipa Juraja Strossmayera u Osijeku, Ekonomski fakultet Osijek, Osijek, 2000.
- Tosalli A., Conti T., Pettigiani A., *La qualita' nel servizio*, Bariletti Editori S.r.l., Roma, 1990.
- Uzelac, J., *Kibernetizacija poslovnog sustava*, Sveuciliste u Rijeci, Ekonomski fakultet Rijeka, Rijeka, 1994.
- Zekic, Z., *Logisticki menadzment*, Glosa d.o.o., Rijeka, 2000.
- Zelenika, R., *Logisticki sustavi*, Sveuciliste u Rijeci, Ekonomski fakultet u Rijeci, Rijeka, 2005.

Copyright of *Tourism & Hospitality Management* is the property of *Tourism & Hospitality Management* and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.