THE MCKINSEY 7S MODEL IN THE AIRPORT SYSTEM PROTECTION

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Abstract: The McKinsey 7S Model is a modern framework analyzing the work of the different parts and aspects of the organization. It is a useful concept implemented by numerous companies and their leaders in order to examine the effectiveness of the business, strategic plan, staff's competences and employees' satisfaction.
Nowadays, more and more organizations are searching for new opportunities to improve their productivity and effective business cycles, to establish harmony on company's level and to become more competitive on the market. McKinsey 7S Model presents, all interested in achieving that, with a supplemental tool to do it. Moreover, the model could be useful in periods of mergers and acquisitions or in aspects such as identification of weak areas in the organization but also in revealing new opportunities.
The McKinsey 7S framework is based on seven fundamental for each organization areas – strategy, structure, systems, skills, staff, style and shared values. Designed on these elements, it fully outlines every aspect with which the organization is dealing in its daily activities and in the long term period. Providing an insight in these factors the model is successfully combined with other tools and mechanisms in achieving prosperity.
Considering all the above, the McKinsey 7S Framework could be a beneficial model in the security and defense sphere, especially in the critical infrastructure. The airport system as part of the critical infrastructure, is exposed to numerous and widely differentiated threats and risks. Its stability and safety is of significant importance. That is why new mechanisms for achieving and preserving security are needed. McKinsey 7S Model introduces a deeper insight in analyzing the airport system, its elements and weak areas.
The aim of this article is to present the McKinsey 7S Model in the critical infrastructure area by:

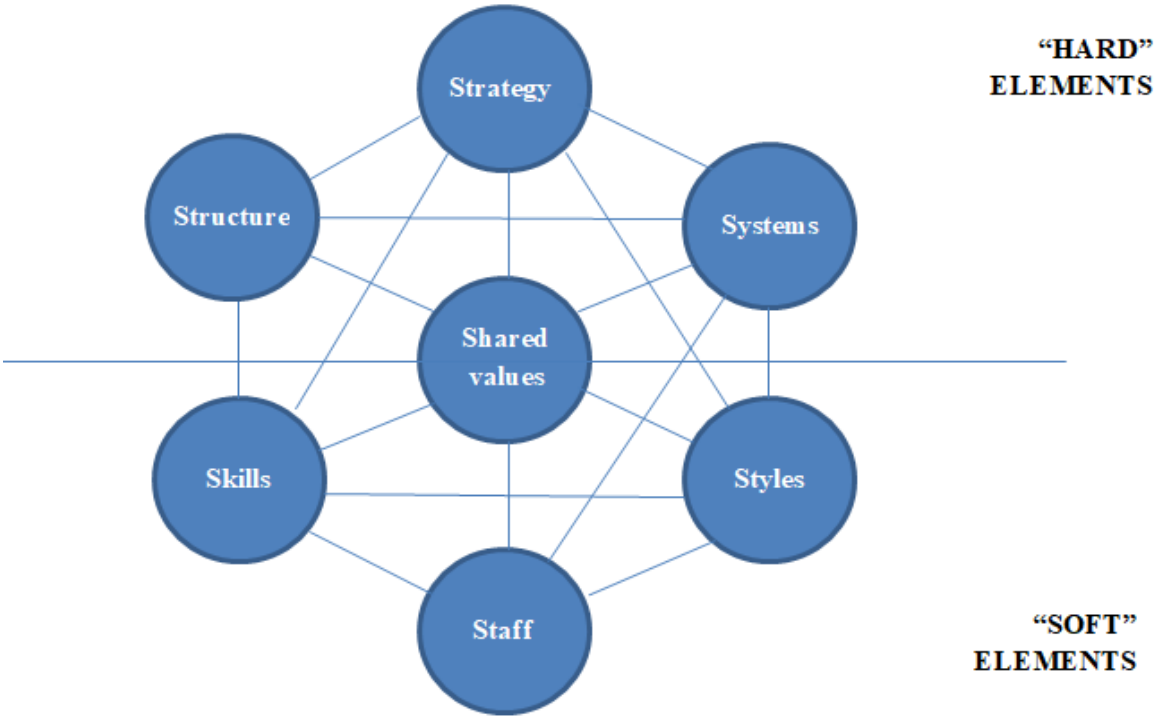
- Describing the role, elements and implementation of the model, alongside its advantages and disadvantages;
- Outlining the McKinsey 7 factors in the airport system and how they could be introduced in improving the security and stability of the infrastructure and boosting its overall functioning;
- Analyzing the internal environment of the airport system;
- Proposing assumptions how the organization would be positively affected by the model.

Last but not least, the article also introduces the behavioral analysis mechanisms in the enhancement of the security, improvement of the internal organizational environment and advancing the personnel of the airport infrastructure.
Keywords: McKinsey model, framework, examination of effectiveness

1. MCKINSEY 7S MODEL - CONCEPT, ELEMENTS, STEPS FOR IMPLEMENTATION, ADVANTAGES AND DISADVANTAGES

The McKinsey 7S model, created in the 1980s, outlines the 7 factors that facilitates the fulfillment of organization's goals and the undertaken of action of change. These 7 combined with one another factors are needed in order to perceive a strong, healthy and prosperous organization. The 7S model is widely accepted and applicable in the business, especially when it comes to undertake an organizational change or merger. It could also be used for boosting productivity and efficiency, improving competitiveness, creating a new business or employees' improvement strategies.
The 7 factors that should be taken into account and analyzed in the strategic management process are divided in two groups – "hard" and "soft" elements. The "hard" ones are relatively easy to be outlined and directly influenced by the managers, while the "soft" ones are harder to be identified because are less tangible and are influenced by the organization's culture rather than by the company's leaders. (MindTools, McKinsey 7-S Framework, Making Every Part of Your Organization Work in Harmony)
The elements of the model are explained and graphically shown *(Graph 1. Elements of McKinsey 7S Model):*

Graph 1. Elements of the McKinsey 7S Model



Strategy
The strategy outlines the company's long-term plan for achievement on sustainability, competitive advantage and strong vision, mission and values in order to be recognizable in the market. It might be problem-solving oriented or more thriving-aiming depending on the needs and goals of the organization. The crucial moment in the process of formulating and implementing a strong strategy is to be designed in such a manner to align with the other 6 factors. On its own the strategic decision may not be the optimum one, but combines with other elements of the model the results could be strong and even exceeding the expectations.

Structure
The structure describes and visually represents the way in which the company's divisions, units and departments are organized and interact with one another, as well as, who are the responsible and accountable persons in this structure. Basically, this is the so called chart of the firm. It is the most visible and accessible by the public element of the model that could be easily changed due to the dynamics in the business.

Systems
This factor outlines the processes, procedures and policies of the organization that enables and regulates the fulfillment of the daily activities. It also shows how they would be affected by a change or transition. Due to the fact that the systems are the basic area that determines the way business is performed, they should be a main focus for the managers during an action of change.

Skills
This factor includes components like competences, knowledge, capabilities and skills that the employees should possess in order to perform and fulfill their everyday working duties and responsibilities. Prior or during an organizational transition the issue that usually arises concerning this element of the model is what skills the company will need in order to reinforce its new policies, strategy or organizational structure.

Staff
The staff element is connected with the skills one. This factor concerns how many employees the organization will need, from which professional sphere they would be, as well as their capabilities and roles in the company's structure. Also a fundamental questions here are how the staff will be recruited, trained and prepared for its working positions, what would be the remuneration it would receive and how would be motivated and rewarded.

Style

This is the management style of the top-managers of the organization. It represents their manner of management, interaction, undertaken of actions, adoption and implementation of changes. Besides that, the style of the company is also described by their symbolic value as leaders.

Shared values

The shared values are the heart of the McKinsey model. They are the core values and principles by which the organization operates on a corporate level and the norms and standards that guide employees' behavior on the structural level. That is way the shared values are the foundation of every organization. (Jurevicius, O., 2013).

In order McKinsey 7S model to be implemented in an organization a certain steps should be considered in its applying process, although there is no universal roadmap that needs to be followed:

- **Identifying the areas that are not effectively aligned** – this step aims the identification of whether the 7 factors are aligned with each other and search for inconsistences and weaknesses between the relationships of those elements.
- **Determination of the optimal organizational design** – during this step the best optimal alignment is of crucial importance in achieving the most effective organizational design. By defining the desired alignment, main goals and plans are able to be set.
- **Deciding where and what changes should be made** – this is the action plan. If the organizational structure and management style are not aligned with its values, reorganization of the reporting relationship should be performed in order to improve the effectiveness of the working activities.
- **Making the necessary changes** – this is the most crucial and essential stage of the process requiring competent specialist to introduce and implement the change.
- **Continuously reviewing the 7S elements** – all 7 elements are not static, they are in a continuous change and dynamics. A variation in one of the factors always leads to an effect on the other elements which might require new structural and organizational design. That is why constant monitoring and review of each area is needed. (Jurevicius, O., 2013).

As happens with many models like McKinsey 7, there is a debate based on the efficiency of its implementation. One of the biggest strengths of the 7S framework is that it can be applied widely due to its flexibility in the transition period, as well as, in identifying weaknesses of the company. Another advantage of the model is its holistic view based on harmony and balance in the organization. Moreover, both people and processes are included ensuring that they will be simultaneously kept in focus.

On the other hand, there are some disadvantages that cannot be ignored. For example, some may consider its lack of universal steps or roadmap to be followed as a drawback. Other negative aspect is that for some managers the model is not so pleasant to be implied if the organization covers a massive business. Last but not least, it is not a strategic tool but more likely a guide which facilitates the actual strategy change and planning process. (AGS Overview, 2020)

2. THE MCKINSEY 7S MODEL IN THE AIRPORT SYSTEM AND ITS ROLE IN IMPROVING THE AIRPORT SYSTEM FUNCTIONING.

There are no barriers for the implementation of the McKinsey 7S Framework. It could be applied in every organization nevertheless its business scope and operations. A particular case is the airport system. Every one of the 7 factors has an effect on the overall performance of the airport infrastructure.

For an airport the **strategic factor** might aim at building competitive advantage by mergers and formation of group structures or trough introduction of new flight routes, increasing customer satisfaction through safer and faster services or through electronic and information technologies. (Fourah Bay College, University of Sierra Leone, 2020)

When it comes to **structure**, one of the most commonly seen practices is the creation of well-designed and structured hierarchy. Airport systems are large, oftenly combining multuple airlines, mergers and aqcuizitions. The dynamics in this area leads to the introduction of new technologies and their respective professionals, frequently change of the managers and top leaders. That is why the organazational structure is of high importance for the normal and positive functioning of the airport.

As every organization the airport is having **systems** like emloyee recruitment and selected system, performace appraisals system, quality control system, complint handling system, marketing system and others. Besides that the airport maintains numerous industry-specific systems such as check-in systems, baggage handling system, in-fight enetertainment system and others. (Dudovskiy, J., 2016) Last but not least, the security system for the airport is of crutial importance for the functioning of the organization, preserving its stability and safety of the passengers and personnel at its territory. The interactive imagine of airport systems can be seen on figure 1.

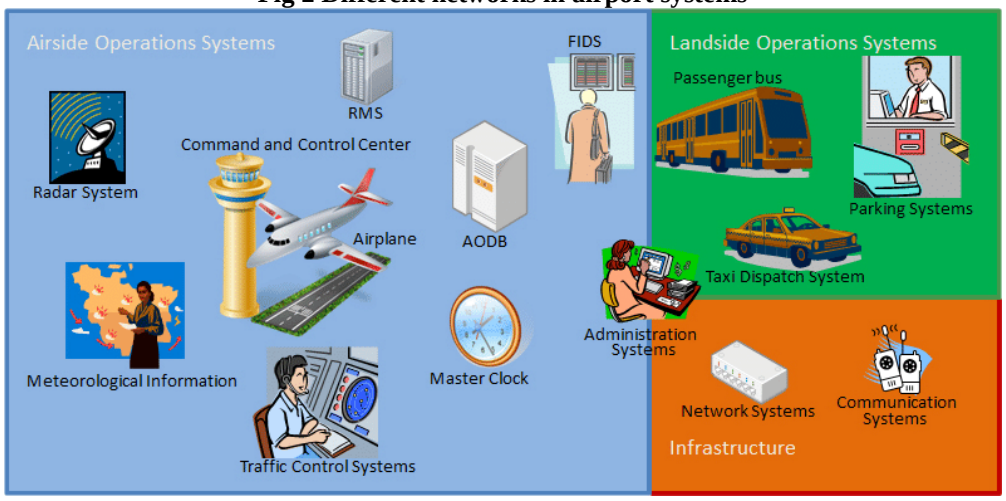
Fig 1 Airport systems

Source: shutterstock.com

Airport systems - each airport in the world – independently small or big, private or not; cargo or not – is a pat of system between airport (physical infrastructure) and airline system. This system is a part of more and different networks, which are connecting the airports. (Figure 2)
These networks and systems can be either geographic or operational. Geographical networks are the following:

- **Regional networks** linking smaller airports with a regional or national center, as commuter aircraft feed traffic from all over the Southeast United States into Atlanta, or Argentine airports connect with Buenos Aires
- **Metropolitan multi-airport systems** serving a single metropolitan area, as Oakland,San Jose, and San Francisco/International serve the Bay Area, and the de Gaulleand Orly airports serve Paris
- **National networks** linking the major cities of a country, as major airlines do for large countries such as the United States, Germany, and Japan
- **International** and intercontinental networks, connecting countries with each other (Neufville, R., 2013)

Fig 2 Different networks in airport systems



Source: researchgate.net

Skills and Staff factors in the airport organization are important and in many cases fundamental. In frequent cases personnel with new capabilities, knowledge and qualifications are needed, a specialized staff is introduced and continuous improvement and development of the employees is aimed in order an effective functioning of the airport to be reached. Moreover, the staff should possess or obtain experience and knowledge in preserving security and safety at the airport territory. (Woerner-Erk, H., Walther, K., 2015)

The **style** as part of the model would be highly influenced by the managers and top leader of the airport organization. They would set the main goals, strategies, structures and even career opportunities. It is their responsibility to create the favorable image of the airport for the mass public and the effectively functioning and desirable style by the personnel.

As a center of each organization the **shared values** of the airport are oriented in the staff commitment, specialization and professionalism, high quality of services and competitiveness, attracting more customers and providing safe and secured atmosphere.

3. INTERNAL ENVIRONMENT OF THE AIRPORT ORGANIZATION AND THE INTRODUCTION OF BEHAVIORAL ANALYSIS

As already mentioned, the internal environment of the airport in the face of its personnel is the fundamental factor that ensures the functioning of the systems and structure of the organization. There are different types of specialists in the airport infrastructure, from the airline pilots, airport engineer, airframe mechanic and air traffic controller, to the flight attendant, baggage handlers, airport security members and air marshal. (Editorial Team, Airport) They might be highly differentiated but each one of them is crucial for the effective functioning of the airport systems.

Numerous aspects should be taken into account when it comes to employees in the airport. Firstly, this is the recruitment of specialized and experienced personnel. The airport is built on the necessity for high technologies, innovations and continuous development in the presenting of services and ensuring security. That is why it aims the recruitment of well-prepared and qualified personnel that are ready to improve themselves and obtain new knowledge and experience. Secondly, in cases where there is a lack of the above mentioned employees, the additional trainings and further qualification are introduced for the newly employed staff and for the already existing one. Thirdly, once recruited and trained, comes the need to keep the personnel in this particular organization through the creation of friendly atmosphere, positive internal culture and competitive remuneration or incentives.

All these three aspects are part of the internal environment of the airport, constantly changing and in relations with one another. The so called "soft" factors of the 7S McKinsey Model are useful in analyzing these elements, outlining their weaknesses and strengths and relocating resources and efforts for their improvement, search for new opportunities and goals.

One particular example for the both introduction of new technologies and further development of the personnel of the airport and at the same time preserving safety and security is the implementation of the behavioral analysis. After the terrorist attacks of 11th of September, more and more airports are searching for techniques to detect suspicious individuals on its territory. Specialists in this sphere conduct researches and develop technologies based on the analyses of the body language and behavioral signs of the passengers and people on the territory of the airport in general. It is believed that such programs can detect the potential terrorists and individuals with intention to harm the airport infrastructure and through that ensures the safety and security of the airport organization and the life of the people on its territory.

Israel is one of the leaders in developing programs for behavioral analysis. The **COGITO** technology detects suspects harboring malicious intent and presents a significant breakthrough that can assist the aviation. (Suspect Detection Systems website, Technology) United States also introduces similar programs - ***Screening Passengers by Observation Technique – SPOT*** based on the COGITO system (Karp,J. and Meckler,L., 2006) and ***Future Attribute Screening Technology (FAST)*** which is designed on the behavioral and psychological sciences, theories for detection of forensic behavior and sensory technologies. (Homeland security website, Future Attribute Screening Technology)

However the behavioral analysis technologies evolve, the staff and skill factor is not likely to be displaced in the future. Several aspects should be observed when it comes to that. On the one hand, is the understanding how the technologies work and the conducting of trainings so that the specialists would be prepared to effectively implement it. On the other hand, stands the fact that the behavioral analysis programs could show false results and the human factor is the one that should take a stand in this case. Finally, timely and adequate reaction is essential in situations with suspicious or hostile individuals.

Although the behavioral analysis is taking more centered role in the security sector, there are certain critics on how effective and positive it would be for the airport infrastructure. Some claim that instead of allocating resources and efforts on detecting limited group of suspicious individuals, more screeners and trainings are needed in performing routine, mandatory searches increasing the number of randomly selected passengers. (Harcourt, B., 2006)

4. CONCLUSION

The safety and security of the airport and the individuals on its territory is a main concept in the effective functioning of the airport infrastructure. In order that to be established and analyzed, the 7S McKinsey Framework is introduced. It is a useful tool outlining the strengths and weaknesses in the airport infrastructure and through that leading to the strategic or structural reorganizations, systems developments and personnel trainings and improvements. The internal environment of the airport is of crucial importance for the well-being of the organization and that is why more resources and efforts are invested in its improvement trough additional qualifications, knowledge and trainings, including in the sphere of behavioral analysis.

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