

The impact of Online Platforms on Reducing the Shortage of Staff in the Air Transport Industry: An Entrepreneurial Approach

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Abstract

The branch of air transport services is an industry in which innovative ideas can be successfully integrated in short periods. Given that air transport is a relatively new and growing business, changes and innovative ideas can be successfully integrated in a short period. This article aimed to highlight the need to create a platform that provides transparent information about the career in air transport, its implications, benefits and how a person can work "at height" every day. The platform meant to bring together interested persons, employers, and public education institutions is to be created in Romania, a country with a vast history in the airline industry.

Keywords: entrepreneurship, air transport, education.

JEL classification: L93, M31.

1. Introduction

Air transport services represent a booming industry through which in 2019 no less than 1.8 billion passengers were transported globally. Hundreds of thousands of people from various fields worked 24/7 to facilitate this service, such as pilots, aviation technicians, traffic controllers, flight attendants or auxiliary personnel. Globally, more than 370,000 aircraft are registered, of which approximately 170,000 are used for passenger transport and 200,000 for cargo or charter transport. Therefore, globally air transport is a significant activity, complementing other forms of transport that support the needs of people. A wide range of small, four-seater, single-engine, piston-engined aircraft is used in air transport.

The operational flight and human resources departments develop close relationships due to the way air operators are organized. In terms of human resources, the flight department can work from an outsourced, often remote location and transmit limited information about its activities.

The uniqueness of the personnel who carry out their activity in aviation, as well as the classification of jobs and the administration of salaries, create a series of problems for human resources. Pilots are not ethnic personnel or managers, but they are forced to take action in their sphere of responsibility. The technical personnel who ensure the maintenance of the aircraft are catalogued like car mechanics, an aspect that is not always an eloquent classification. Unfortunately, this defiance also comes from the company's staff, such as the receptionist/secretary/programmer/accounting officer who does not have a thorough knowledge of the flight activity. All this leads to a lack of fair compensation for department

staff. Through interconnection, much of these problems can disappear (Sheehan, 2003, pp.25-32).

A link must be established between the director of the flight department and the director of human resources in order to solve the problem related to the staffing of the structures. The human resources structure must also be challenged to conduct salary comparability surveys for flight department staff or to participate in industry wage surveys.

2. Perspectives on the evolution of the air transport industry

According to studies, the air transport services market is experiencing a significant labour shortage. It is estimated that by 2030, there will be a global need for approximately 1,000,000 new pilots. If at the beginning of 2020, all the military and civilian entities worldwide would develop the process of training pilots at full capacity, it would not reach the number that will be needed in 2030, also, due to the growing demand. On the part of the airlines, at the level of the profile educational institutions, a significant deficit of instructors specialized in pilot training is foreshadowed, pilots (Nițu,2020).

In Romania, at present there are the following institutions (civil and military) that train specialized personnel for air transport:

- Pilots: Higher School of Civil Aviation and Air Force Academy;
- Technical staff (engineers and foremen): Polytechnic University, Military Technical Academy, School of Military Foremen of the Air Force;
- Air traffic controllers: Higher School of Civil Aviation and Air Force Academy;
- Flight attendants: Higher School of Civil Aviation and other private entities (Cursuri piloti avion, 2020).

After graduating from these educational institutions, there are several companies where new specialists can be hired. In Romania, there are both local and foreign employers such as BlueAir, Tarom, WizzAir, Ryanair, Lufthansa, KLM. These airline operators also have their training and continuing education programs, but even so, the shortage of specialists is still high.

Analyzing the situation in this branch of the economy, both in Romania and in other states, I consider that the development of a platform meant to interconnect people interested in a career in aviation, local and international educational institutions and final beneficiaries (airlines), represents an idea with entrepreneurial potential, suitable to be implemented both in Romania and internationally. From an entrepreneurial point of view, it can be a solution to reduce the global shortage of specialized personnel in the airline industry (Faur, 2019).

One of The solutions that an entrepreneur can approach for the interconnection mentioned above refers to a platform that uses an ERP (Enterprise Resource Planning) strategy because the sales structures, business processes and IT infrastructures are interconnected and can thus be standardized and implemented using an appropriate strategy. Operatively analyzed an ERP system can accept all business processes of a company, in this case, one of the training providers, as it contains modules for procurement, production, sales, financing possibilities integrated through a single database. Also, the process of standardizing business processes beyond organizational boundaries can have significant synergistic effects in order to design long-term sustainable policies (Shields, 2004, p. 84).

The ERP system is perceived as a business tool, rather than a simple IT tool. Through the interconnection platform of the beneficiaries, the aviation educational institutions and the person interested in a career in the air transport industry, three essential objectives are pursued:

- Generating a standardized process architecture meant to bring together the three stakeholders;
- Standardization of internal and external data for the processes related to data storage, their transmission and efficient organization;

- Standardization of IT infrastructure;

Table 1. Benefits of using ERP system

Benefits	Application method
Providing quality information	Unique database for all entities involved
Avoiding redundancy of data and operations	Due to the unique database, modification operations are avoided
Short response time	The system can provide instant reports and information
Adaptability	Economic changes are changing rapidly through ERP
Scalability	The structure of the platform may allow the addition of new components (institutions, beneficiaries)
Facilitating the e-business concept	The architecture of ERP systems allows the integration of e-business applications

Within the interconnection platform in the educational system, air operators and future students, the entity that will develop it, can also implement a CRM (Customer Relationship Management) strategy, meant to streamline the relationship with the staff interested in a career in aviation (Gronwald, 2016, p 142).

Customer relationship management is defined as an entrepreneurial concept, which developed from a tactical marketing tool, becoming a strategic element used in most marketing decisions since the mid-1990s. Analyzed as a system, CRM is an integrated component that makes the connection between the provision of products or services and marketing campaigns. In the current situation, the integration of CRM in the interconnection platform can be used in order to maximize the potential of marketing campaigns developed by airlines, which transmit the opportunities offered by a career in the field and make a connection with stakeholders. The forecast is also used in the implementation, is defined as the link between CRM as a demand generator and SCM as a demand fulfilment method (Kurman & Reinartz, 2012, pp. 3-20).

The current changes take place in parallel with the evolution of customer-oriented thinking and entrepreneurial action. Also, a large-scale entrepreneurial project requires the integration of Business Intelligence (BI) and Big Data Analytics (Big Data) which are the technology-based methods that support this development. CRM, BI and Big Data systems can be developed together. After the completion of the internal optimization of the company's platform and the implementation of ERP and CRM, this customer-oriented evolution will dominate as this course evolves. Also, a large-scale entrepreneurial project requires the integration of Business Intelligence (BI) and Big Data Analytics (Big Data) which are the technology-based methods that support this development. CRM, BI and Big Data systems can be developed together. After the completion of the internal optimization of the company's platform and the implementation of ERP and CRM, this customer-oriented evolution will dominate as this course evolves. Also, a large-scale entrepreneurial project requires the integration of Business Intelligence (BI) and Big Data Analytics (Big Data) which are the technology-based methods that support this development. CRM, BI and Big Data systems can be developed together. After the completion of the internal optimization of the company's platform and the implementation of ERP and CRM, this customer-oriented evolution will dominate as this course evolves (Hardoon & Shmueli, 2015, pp. 96-114).

From an entrepreneurial point of view, a platform meant to support a business in the airline industry is, in my opinion, a real success idea. Implementing the most efficient standards for connecting and organizing the entity is a natural approach in the second decade of the 21st century. It is also noteworthy that due to the social distance involved in the pandemic with the new coronavirus COVID-19, a platform is the ideal meeting place for all interested actors, it

can offer including online courses, in order to continue training for the students of the educational institutions involved.

3. Research methodology

In this article, quantitative research was conducted that aimed to identify the attitude of the actors involved towards the implications brought by the implementation of EPM, CRM and BI services, through online information and networking platform. Among the research objectives were to demonstrate the usefulness of a platform for integrating the aeronautical education system in Romania, national and international airlines and people interested in a career in the field, as well as analyzing the most critical information noted by respondents in the test platform. The research was conducted between February and March 2020. Analyzing from the perspective of research limitations can be listed: lack of a similar platform, which does not allow a comparative analysis of potential advantages and disadvantages of the proposed concept, research results based only on assumptions issued depending on the answers of the respondents and not the pre-existing practical approach. Also, the relatively small number of respondents (100) indicates that this research was conducted in the form of a pilorus study and not as a representative study for the market, but a research limit may be considered, thus making the recommendation to develop research and to apply the questionnaire on more significant numbers of respondents to allow their division according to the interested players approached (educational institutions, airlines and interested persons)

In this online questionnaire, 100 respondents were interviewed, several 20 questions, of which six socio-demographic questions, two identification questions, and the answers to the questions were formulated based on the research objectives. The interviewees were offered access to an integrated platform, where information was uploaded from educational institutions with an aeronautical profile in Romania and job offers from local and international air operators. Also on this platform was ungrateful a virtual assistant, designed to facilitate access to the necessary information and improve the user experience. Among the interviewees are: entrepreneurs, high school students, students, freelancers and teachers.

1. Have you ever intended to have a career in the airline industry?

- Yes
- Not
- May be

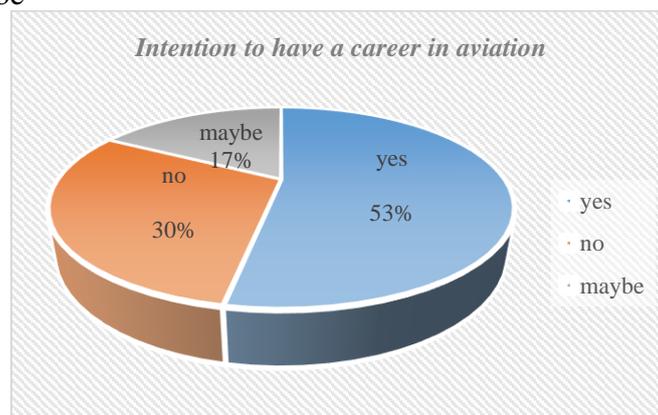


Fig.1. Intention to have a career in aviation

After asking this question, over 50% of the respondents answered that they wanted or want to pursue a career in aviation. Also, a third consider that this is not an area in which they wanted or want to work. About 20% of respondents were undecided, in most cases, because the volume of information in this area is low. Subsequently, the respondents were interviewed with an open-ended question, which was the reasons why they answered in a certain way. Those

who answered "yes" mentioned that they intend to pursue a career in this field and the additional information and answers to their questions would help them, the respondents who answered "no" stated that the field of aviation was not for them, but it was an option.

2. How do you think the information was provided through the platform?

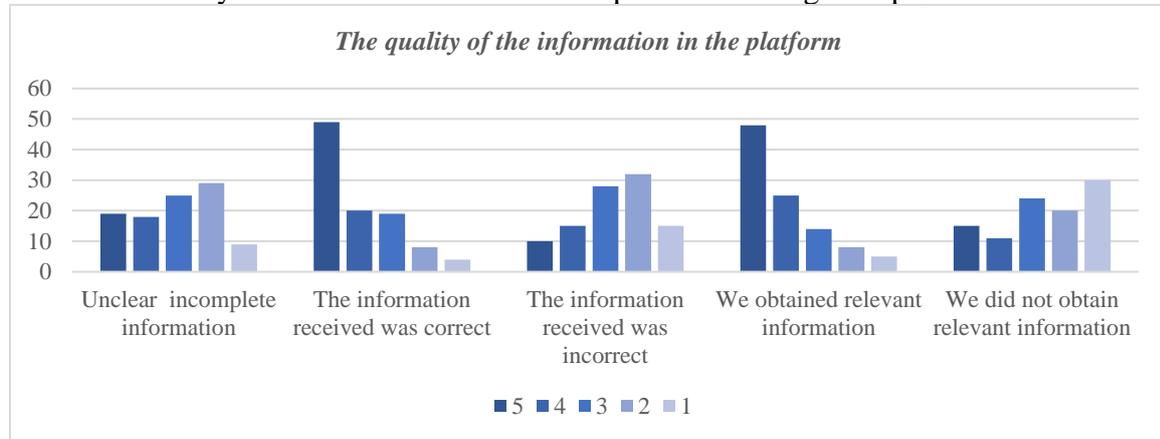


Fig.2 The quality of informations in the platform

The response variants were numerically coded for performing statistical analyzes as follows: depending on the measurement scale used (semantic differential) for the response variant "to a minimal extent" the value one was allocated, and for "to a considerable extent" the value of 5 was assigned. Most respondents appreciated that the information provided through the test platform was correct and relevant, also appreciating their consistency.

3 How do you appreciate the usefulness of a modern platform through which you can obtain information about educational institutions in Romania or about national and international airlines?

The usefulness of such a platform was one of the desiderata from which this project started. This aspect was also highlighted by the respondents of this questionnaire, over 60% of them considering that such a platform will bring added value by interconnecting everyone ". Also, 50% of the respondents appreciated that to a great extent they will benefit from the advantages of the platform, the educational system, the providers of the training programs and especially the air transport industry.

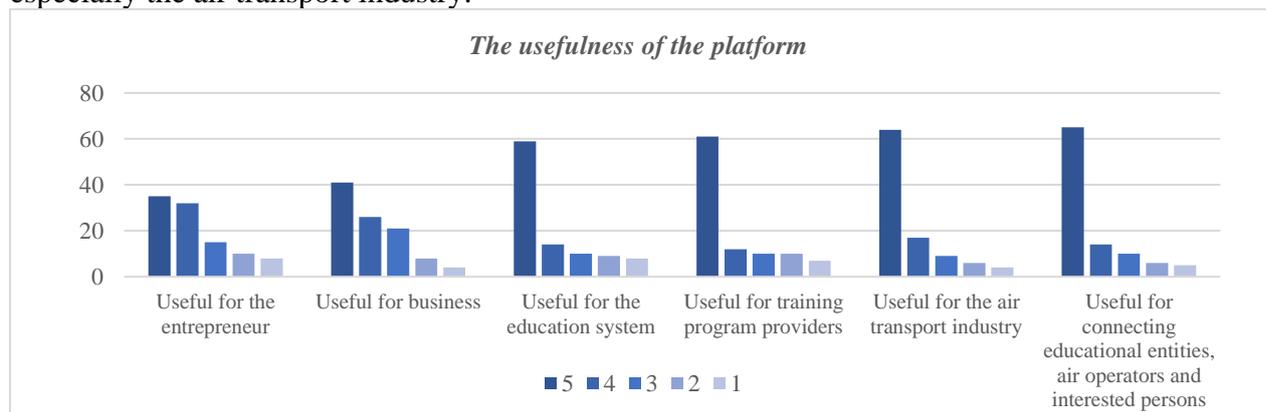


Fig.3. The usefulness of the platform

3. Why do you think you need an interconnection platform?

In this question, most people surveyed, over 30%, though that the most critical information refers to the benefits that a career in aviation can have. At the same time, the "reunion" of a large number of specialists in one place is an appreciated aspect.

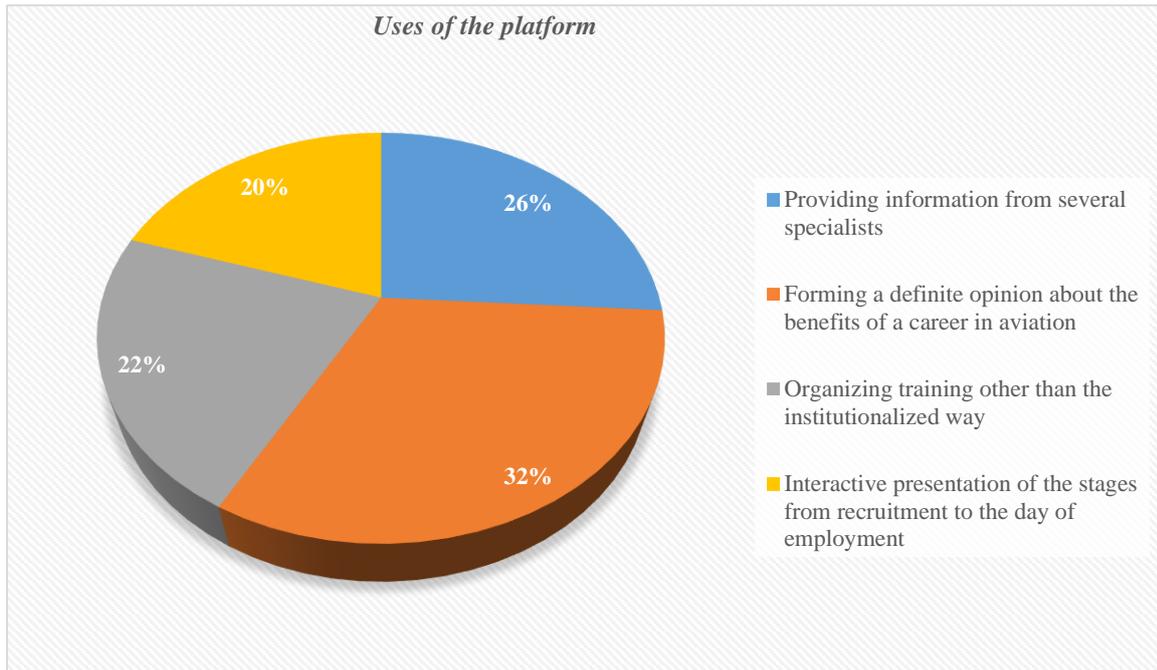


Fig.4. Uses of the platform

5. What are the characteristics of ERP, CRM or BI systems useful for providing and forming a coherent opinion about the air transport industry?

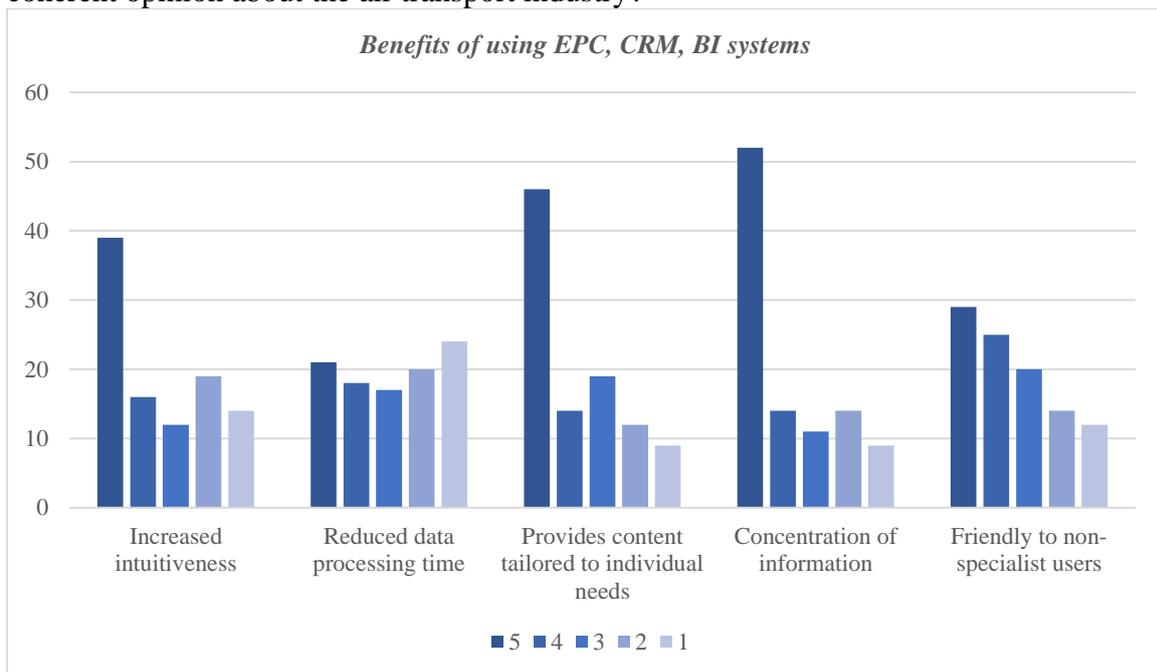


Fig.5. Benefits of using EPC, CRM, BI systems

The integration of systems such as ERP, CRM and BI, are beneficial in such an entrepreneurial project, and 50% of the respondents much appreciated the integration of information in one place. The provision of transparent information, in an attractive way and with a high degree of intuition, also represented the elements highly appreciated by the interviewed public.

Conclusions

From an entrepreneurial point of view, creating a platform to bring together aeronautical education institutions in Romania, National and international airlines and people interested in

a career in aviation can be a successful business. Also, by integrating systems such as EPM, CRM and BI within it, the degree of attractiveness is increased, simultaneously with its potential. Through the questionnaire, it was highlighted that the interaction with this platform was a definite success, and people appreciated the idea of bringing all the actors involved in one place. It confirms the idea that the shortage of staff in the airline industry can be reduced through such platforms designed to provide accurate information on tuition, costs, specialization courses and precise job offers for all categories of staff interested.

From a managerial point of view, the construction of a meeting place for educational institutions with specific aeronautics, airlines and interested persons can generate considerable income, obtained from the promotion of the first two entities and by providing subscriptions to interested persons. Also, each contract signed between any two of the three parties can be commissioned through the platform.

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