# Transforming Match Final Results into Valuable Information for Managing a Football Championship

*Vlad ROŞCA[1]*

**ABSTRACT**
*The paper focuses on the four components of the informational system (Data and Information, Informational flows and circuits, Informational procedures, Ways for treating information) and their adaptability to a football championship. More precisely, the paper presents how the final results of football matches are transformed into information which is needed for running a championship, by using the case study of „Liga Economistului", a football league with ten participating teams. The article shows how the executive managers of „Liga Economistului" collect, process and manage data and information in order to properly run the championship, and why such steps are important for any sporting championship.*

**KEYWORDS:** *managerial informational system, football management, league management, informational circuits, Liga Economistului*

**JEL Classification: M 15, M 19**

### Introduction: The Managerial Informational System in Liga Economistului

The managerial informational system is important for sporting organizations, since such entities are influenced too by the information technology, which has continuously developed in the last couple of decades (Ciocoiu, Burcea & Târţiu, 2010). Moreover, in a knowledge based society (Marin-Pantelescu et al., 2009), sporting organizations must try to implement well designed informational systems, in order to facilitate the communication within the organization and towards its exterior, so that sporting success and long lasting development can be achieved. An informational system is described by specialists as „the overall of data, information, informational flows and circuits, procedures and tools to treat information, which are meant to contribute to setting and accomplishing the objectives of an organization" (Burduş, 2005; Nicolescu, 2001; Nicolescu & Verboncu, 2008).

As could be read in the definition, an informational system is built up by the following four components:

a) Data and Information. Data represents the numeric or letric description of an action (Nicolescu, 2001, p.28), while information can be presented as the data which, after being treated, brings added value and added knowledge to the management (Morar & Olaru, 2004, p. 150)

---

[1] *Vlad ROŞCA,* The Bucharest Academy of Economic Studies, Romania,
e-mail: vlad_rsc@yahoo.com

b) Informational Circuit and Informational Flow. The informational circuit refers to the path through which information is transmitted from sender to receiver (Nicolescu & Nicolescu, 2001, p. 221), while the informational flow represents the quantity of transmitted information in a determined period of time, being characterized by speed, length, direction or frequency (Moga et al., 2003).

c) Informational procedures represent the „elements through which means of collecting, recording, transmitting, processing and achieving pieces of information are set" (Nicolescu, 2001, p. 35).

d) The tools for processing information are represented by „the technical support which helps to collect, record, store, analyze and send data and information in the organization" (Burduş, 2005, p. 414).

Liga Economistului, a football championship with ten participating teams, will represent the case study of this article. Each of the ten teams has to play against the other ones once, so a team plays nine matches in all. This competitional system provides that nine matchdays are played, with five games per matchday. The games of a matchday are played one after another. Each football game ends with a final score, so that, at the end of a matchday, there will be five final scores. This five final scores have the form of data. The data has to be processed in order to form standings. A standings-table containing the ten teams is formed at the end of each gameday, with three points being granted for victory, one point for a draw and zero points at defeat.

Information processed from the data regarding the football matches, collected at the end of each matchday, is important for the league's management due to the following reasons:

● As one of the goals of a championship is to provide a champion team, collecting match results and using them for forming standings helps the management of the league award the champion's title at the end of the season. Champion of the league will be the team which, after the completion of the nine matchdays, will held the first position in the standings-table.

● Providing centralized final results and updated standings are also serving to satisfying the stakeholders (players, fans, management, mass-media etc.) of the league, who want to be up-to-date with the happenings in the championship.

● Information regarding the booked players is also important in organizing the league. If players collect three yellow cards or they are shown a red card, they will be suspended for the following game. It is the task of the „Refereeing & Laws of the Game" Department to inform the teams if one of their players is suspended. Thus, having up-to-date information about the situation of the booked players is significant for the referees.

● Marketing reasons. Transforming match data into information has a role in marketing the league. Statistics can be formed which to make the competition more interesting for the fans and for the participants. An example is the goalscorers' standing, which does not influence the teams' standing. The team providing the topscorer of the league is not necessarily the same team that wins the league. The teams' standing counts most, because it provides a champion of the league. Then, why keep a goalscorers' standing? The answer is: because, in marketing terms, the topscorer is a valuable asset that can be used by the league in its promotional campaigns.

These are the reasons why collecting match data and transforming it into pieces of information is important for the management of a football championship such as Liga Economistului. Each of the five games played a day provides the following data:

- Final score (that is, number of goals scored by each team).
- Names of the goalscorers.
- Booked players and their names.

These data are recorded, at each game, by the following persons:

- Referees, who record data in small-sized bloc-notes that they keep in their pockets while refereeing the game.
- Official match observers, who sit at the sideline of the pitch.

Note that, during the games, at the playfield, both referees and match observers register data manually by using pen and sheets of paper. Data registered by the referees may indeed be sufficient, but match observers are used as backup. Caught in the game, referees may miss to write down some data, or they may write it wrong (for example, because of the speed of the game, referees may not see the jersey-number of the goalscorer). By having a backup, referees have the possibility to compare their notes with those of the match observers, so that they get a correct and complete round-up of the important data saved during a football match.

At the end of the matchday, there will be five football matches from which data had been collected. In charge of centralizing the results and transforming them into information is the director of the „Refereeing and Laws of the Game" Department (R&L). At the end of the last match of the day, the R&L director collects the papers from the match observers and from the referees (if the director can't make to the venue, he will receive the match sheets from a colleague referee or from a member of the league's management team).

Then, when reaching in front of his computer, the R&L director introduces the data from the match sheets into a software. With the help of the software, he processes the data and transforms it into information. After processing the data and centralizing the resulted information, the R&L director has the following valuable information:

- Final results of the games, together with the names of the goalscorers.
- The names of the booked players and the type of the booking (yellow card or red card).

The director then uses these pieces of information and produces the following standings:

- Standing of the teams.
- Standing of the goalscorers.
- Situation of the booked players.

## 1. Informational Circuits

The informational circuit represents the path through which information is exchanged between sender and receiver (Morar & Olaru, 2004; Nicolescu, 2001, p. 32). Through its architecture – its length and quantity of transmitted information – the informational circuit influences the management of Liga Economistului, thus the quality of the football championship. In what concerns the match results, the circuit for transmitting them is short

and fast: the R&L director collects the results, processes and then communicates them to the mass public via Internet.

Two informational circuits can be identified. The two circuits are temporally conditioned, the first circuit having to be accomplished so that the second circuit can exist:

   I.) From the playfield to the R&L director. The first circuit consists of the data that is registered during the games and which, at the end of the matchday, is collected by the R&L director. This data has the following characteristics:

- Written form: data is written down on sheets of papers by referees and match observers;
- Evidence character: the data presents the evidence of what has happened during the football game;
- Primary state: data is unprocessed; evidence of the happenings during the game is simply written down on the paper;
- Horizontally transmitted: match data is transmitted between managers of the same hierarchical level, between referees themselves or between match observers and referees (referees and match observers are considered to be part of the management team of the football championship);
- Endogenous provenance source: the data emanate from matches belonging to the same football league (Liga Economistului) for whose management this data is used;
- Internal destination: the beneficiary of this data is the director of the R&L department, himself being part of the management of Liga Economistului. The data does not quit the internal structure of the football league.

After collecting the match data, the R&L director processes it and transforms it into information, which he later sends to the public, by publishing it on the official website of the league.

   II.) When sending information to the public, the R&L director implements the second informational circuit, where information has the following attributes:

- Written form: information keeps to have a written form, just that now it is written on the website, not any more on sheets of paper, as data was;
- Final state: data has been processed and transformed into information that is now in its final state, ready to be read and processed by the league's stakeholders. No further modifications are being brought to this information;
- Horizontally transmitted: information is horizontally transmitted between the stakeholders of the league, be those managers, players, fans or mass-media;
- Statistic character: information helps form the standing of the teams and provides other needed knowledge for running the league;
- Internal and external destination: information is addressed both to the internal stakeholders of the league, as well as to the mass public.

## 2. Tools for Processing Data and Information

In order to process and to analyze data and information, and then to present them to the public and use them for developing the sporting organization, the management of a football championship such as Liga Economistului first of all has to collect data. In Liga Economistului, as already presented, data collection occurs manually. After he has

collected match results and statistics through manual tools, the R&L director uses authomatized tools in order to process data and to earn valuable managerial information. The processing of match data has the following characteristics:

- Match results and statistics are processed by a computer software, which also saves the introduced (and afterwards processed) information into a database. Whenever he needs evidence, the R&L director accesses the database.
- Fast processing speed. In less than one hour, the R&L director has full informational evidence of what has happened during the recently ended gameday, with up-to-date standings and statistics.
- Facilitation of the process of sending information to the public. As match results and other information are presented to the stakeholders via Internet, using a computer for saving and processing data facilitates and fastens the process of making information public, thanks to the fact that the executive managers of the league upload information on the championship's official website by taking it directly from the computer. No double-work is needed.

The R&L director introduces match results and other match data into the computer by using mouse and keyboard, while the output is shown on the computer's screen. The technology used for processing and calculating data is Microsoft's Office Package, especially the Microsoft Excel and Microsoft Office software programmes. The resulted information is saved on the computer's hard disk, while the online exchange of the processed data between the managers of the league occurs by attaching the documents to e-mails or by using the Google Documents service. By posting information on the website of the championship, there is a backup for the pieces of information on the computer's hardware, because the webposts are saved online and can be accessed whenever (if not removed by the league's managers which are in charge of running the site). So far, the managers of Liga Economistului are the supporters of not removing posted information from the site. One reason for this decision has already been presented (backup), while another one is induced by the will of valuing the history and the traditions of the football championship. Therefore, a subpage „History" – where the results and statistics of the previous editions are presented – has been created on the website. The policy of the league's management provides that, at the end of each season, the webposts should not be deleted, but saved into separate dashboards, while the most important pieces of information also make it to the „History" section. The „History" page has importance for the organizational culture and for the marketing of Liga Economistului, as past events, players, norms and rules are preserved and valued, while, at the same time, they are also attractive for the stakeholders of the championship.

As a matter of fact, computers and web-based informational systems have been integrated in the management of Liga Economistului, as most of the league's communication and marketing are done online. An advantage of this integration is that space is saved. Match results, standings and information must not be kept on sheets of paper, which would have involved a physical stocking space, but they are saved online, on the world wide web. It has to be stated that, after data is introduced into the computer, the sheets of paper on which data has been recorded during the matches become trash.

**Conclusions, Findings and Further Research**

Eventhough managerial informational systems are valued mostly in business organizations, sporting organizations also need them. Managers and directors of sporting organizations (clubs, teams, leagues, associations, championships etc.) implement and use informational systems because, as this research found out, sporting organizations need:

- Clearly projected informational circuits, so that information reaches the receiver without any delays;
- Up-to-date standings and statistics, which may prove to be essential in identifying valuable teams, athletes, or development opportunities;
- To keep in touch with their stakeholders and with their mass public. Sporting organizations can do so by implementing an Internet-based communicational system, whose starting steps are data collection and processing;
- Last but not least, the managements of sporting leagues need match results. Match results are probably the most important piece of information in a league. The management of the league has to collect, process and centralize results, then to build a standings-table based on them.

Further research may concentrate on the functions and dimensions which informational systems have in sporting organizations, or on the roles which these systems play in helping athletes or teams to achieve sporting success.

**References**

Burduş, E. (2005). *Tratat de management,* Editura Economica, Bucharest

Ciocoiu, N., Burcea, Ş., & Târţiu, V. (2010). Environmental impact of ICT and implications for e-waste management in Romania, *Economia Seria Management*, vol. 13 (2), pp. 348-360.

Marin-Pantelescu, A., State, O., & Ţigu, G. (2009). Globalization: an open door for the knowledge economy, *Economia Seria Management*, vol. 12 (2), pp. 154-161.

Moga, T., Rădulescu, C.V., & Voicu, R. (2003). *Management*, Editura ASE, Bucharest

Morar, C., & Olaru, S. (2004). *Managementul întreprinderii*, Editura Lumina Lex, Bucharest

Neagu, C., & Udrescu, M. (2008). *Managementul organizaţiei,* Editura Tritonic. Bucharest

Nicolescu, O., & Nicolescu, L. (2001). *Managementul modern al organizaţiei,* Editura Tribuna Economică, Bucharest

Nicolescu, O. (2001). *Sistemul informaţional managerial al organizaţiei,* Editura Economica, Bucharest

Nicolescu, O., & Verboncu, I. (2008). *Fundamentele managementului organizaţiei,* Editura Universitara, Bucharest