# The role of the time factor in the manager functions

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**Abstract:** The role of the time factor in management is increasing. Change directs attention to the time factor from the point of view of the organisation, and management does the same from that of the person. I examined the time management practice of managers of organisations related to agribusiness, and the reaction time characterising the adaption ability of the organisations through a questionnaire survey. I analysed the collected data with scientifically established statistical methods. During studying resources, managing tasks, change, reaction time and effect I explored the features of time as resource, the significance of the time factor, the improvability of time efficiency in the different managing functions, the factors supporting and hindering the quick reaction of organisations, and what rearrangements can be seen in management work nowadays.

Key words: time factor, resource, managers' time management, and reaction time.

## 1. Introduction

Managers are overburdened and exhausted due to their tight schedule of work. They suffer from a constant shortage of time, which may lead them to anxiety, deteriorating performance and manager diseases. This is due to the fact that in the middle of the 20<sup>th</sup> century people realised that the improvement of technics and technology will soon reach its limits, therefore increasing productivity and efficiency has to be approached from the human side. Improving company efficiency has become a demand towards managers, thus, in order to be successful; they overtake tasks beyond their abilities. At the same time, they search for ways of improving personal efficiency, as well. Related to this, the time paradox has come into the limelight, which is the fact that although the time available to us is limited, the possibilities of its utilisation are unlimited. This means that, on the one hand, efficient time management, and personal and company efficiency might be in relation, and on the other hand, managers can get rid of their anxiety caused by shortage of time, and their tiredness caused by their tight work schedule. Thus, efficient managers have to try to manage their own time and the time of the company well. This way they can discover hidden reserves and gain surplus resources, which may improve competitiveness and efficiency.

Nowadays companies try to maintain and increase their efficiency among environmental conditions which are constantly changing, often unstable and are difficult to predict. In the last few decades changes have dominated the operation of organisations. Earlier, boom periods could be predicted relatively well, whereas today dynamic improvement and uncertainty are more common. The pace of technological improvement and that of the process of product development

has increased incredibly, while the life cycle of products and services has decreased. This means there are not only continuous changes in the environment of organisations but the pace of the changes themselves has also risen.

Organisations are forced to adapt to changes by this turbulent and unstable environment. The question how fast the company is able to adjust to its environment does not only determine its competitiveness but often its existence, too. Therefore, the reaction time of organisations – that is the time of adjustment to changes – may become a key factor.

These phenomena drew my attention to studying the personal time of managers and the reaction time of organisations. I chose organisations belonging to agriculture and related supplying, food processing and food trade branches as the target group of my study. One reason for this is that, due to agricultural processes being dependent on nature and production being seasonal, and due to the fact that the different processes are based on each other, the time factor has an outstanding significance in this branch. The other reason is that there have been especially big transformations in agriculture since the change in the political system. The most significant one was the transformation in the owners' structure related to privatisation and compensation, which brought along a decrease of company size, a change of company structure, product structure and volume, and a fall in the number of employees. All these highlight the significance of reaction time related to the adjustment ability of organisations.

My research topic is integrated in the framework of the research program 'A Functional Study of Company Management in Agriculture' (*Berde* et al., 2009), elaborated in the Management and Work Science Department of the Agricultural Economy and Rural Development Faculty of the

Centre of Agricultural and Technical Sciences, Debrecen University.

My main objectives were to create a complex picture of time according to literature, a theoretical approach and my own research; to explore the function of time in management work; and to prove that time as a resource can serve to improve the effectiveness of the management and the company.

#### 2. Material and method

## 2. 1. The precedents of the research

My research area was identifying the role of the time factor in management work, and exploring how time as a resource can serve to improve the effectiveness of the management and the company. This topic is integrated in the research program (*Berde* et al., 2009) elaborated in the Management and Work Science Department of the Agricultural Economy and Rural Development Faculty of the Centre of Agricultural and Technical Sciences, Debrecen University.

The aim of the research program, as its name shows, is 'A Functional Study of Company Management in Agriculture'. The structure of the program is characterised by a modular construction. This means that the research covers three main areas related to one another, each of which consists of subtopics. With this structure it is possible to do more thorough and detailed research, and the results can continuously be integrated in the study of the main areas, as well. Thus, the topics and sub-topics of the research program can constantly be restricted both horizontally and vertically. Due to the modular structure, establishments can be made according to chronological order, and the observations of the same topic made in different periods of time can ensure chronological continuity, too. This study method can be regarded as functional because the main objectives of the research are to determine the tasks of the manager and to analyse the factors influencing these tasks. Through the questionnaires applied during the collection of data, the basis of the establishments was constituted by the opinion, experience, value judgement and preferences of the interviewed managers. Due to this fact, the research method is not only functional but also empirical. My research topic is related to the main area of process management and, within that, to the sub-topic of time management.

My study consisted of interviews in the form of questionnaires, and company data collection.

I had constructed the questionnaires with regard to the recommendations of specialized literature, and first I tested it by personal trial interviews with 50, randomly chosen managers. According to the experience that I gained, I finalised my questions and elaborated the method applied during the research with the help of a case study.

The finalised questionnaires were taken to the organisations involved in the study by inquirers. Collecting

data by inquirers is considered to be one of the most reliable methods (*Babbie* et al., 1999), which ensures relevant answers and the proper level of completing the questionnaires.

The character of my study determined the target group of the questionnaires. I asked the employees of the particular companies in top positions to answer my questions.

The questionnaire can be divided into three parts:

- The first part is the 'General data form', which contains the organisational parameters of the person's workplace.
- The second part consists of 'The interviewed person's (personal) identification data'.
- The third part, which contains the main information, is the 'Management interview'. It is made up of 14 questions. In the first eleven questions I gave 7–8 factors, which the interviewed persons had to grade on a scale of one to five. The influencing effects of the 9 factors given in the last three questions had to be graded as neutral, positive or negative. With the data collected in the management interview, I accomplished effect studies concerning resource, management tasks (functions), change, reaction time and time factor.

## 2. 2. Applied statistical methods

Considering the type of collected data, I applied several kinds of applied statistical methods in accordance with the objectives of the study. I started the evaluation of the questionnaires with a descriptive statistical analysis, then I made a hypothesis analysis, an analysis of the main components, and a variance analysis.

I accomplished the studies of resource, management tasks, change and reaction time following the same analysis structure. To compare factors belonging to different quality model groups created according to the personal characteristics of the interviewed managers and the parameters of the organisations, I compared their mathematical averages. To avoid the possible distorting effects of mathematical averages, I examined the dispersion of the factors, and the frequency of the versions of the different group-forming conditions. I also examined the distribution and priority of the point values of the factors.

With all the question groups I analysed if there is a difference between the different groups of organisations involved in the study, which were formed by activity, operation form, size and transformation, in judging the time factor, time efficiency and immediate reaction.

I also examined whether there is a significant difference between the managers' opinions according to their sex, age, highest qualification, position, work experience and the number of their working hours and employees. I performed a hypothesis study of the averages of the groups belonging to the same aspects.

For the questions measured on an ordinal scale, I created main components by question groups. During the analysis six main components evolved in each question group, i.e. 36 main components altogether. I performed a variance analysis on the main components according to the group-forming

conditions, and I examined the relations between the main components with correlation analysis. For examining the relation between the questions of low measuring levels and the group-forming conditions, I applied a Chi-square analysis.

I tested the reliability of the set of data with a reliability analysis. The analysis creates a Chronbach alpha index, which determines reliability. According to this index, I considered the data suitable for further investigations. I also analysed whether any of the questions should be cancelled in the questionnaire if I wanted to improve reliability. I did not find such questions in any of the question groups.

## 2.3. Presenting the research model

I analysed 625 managers' interviews in my study, for which I collected data with the help of inquirers.

In the case of missing data the given person was left out of the analysis according to the given study aspect. The proportion of missing data for the whole model was 1.83%.

The activities of all the organisations are related to agribusiness. Half of the companies specialise in agricultural activities, and a further 5.4% of them in food industry. The research model mainly consists of medium sized, limited liability companies. More than 40% of these companies have gone through remarkable transformations in the last few years.

Most of the interviewed persons are men with higher level qualifications, and with positions mainly in medium and lower management. Among them you can find men in their thirties, forties and fifties, approximately in the same proportion, but there are a significant number of persons in their twenties, as well. 60% of them keep to the legal eighthour working day, but 40% of them spend more time at work.

## 3. Results and discussion

#### 3. 1. Resource studies

Resources are all the material and immaterial goods and services that companies use in order to realise their launches. According to their functions in the production process, natural resources (soil, raw materials, etc.), human resources, capital, and business abilities are traditionally regarded as production factors. In the 20<sup>th</sup> century a new type of resource joined these traditional resources, and that was information. Time also possesses features of resources: with its utilisation it is possible to gain profit, while it appears as a special expenditure, it has value and price, there is shortage of it, it can be replaced and completed by other resources, and, in a way, it can be mobilised.

The time factor plays an important role in organisational processes and in management activities. Thus it can be established that, from the organisational and managing viewpoint, time is an objectively existing, well-definable economic factor which can be regarded as a resource, as well. Its effect has two directions: it may serve as limit and advantage at the same time. According to all that, in my

studies I regarded time as a resource. This did not cause any problems to the interviewed managers, they were able to handle and evaluate time as a resource. My aim with the resource studies was to determine the place of time as a resource among the other resources.

In these studies I analysed the time factor from two aspects. On the one hand, I wanted to know what role time has in managers' opinions in increasing company efficiency and performance. On the other hand, I asked them how much they consider this resource to be expandable. As from the answers you can find out about the classification of the other resources too, it is possible to draw further conclusions from their rankings.

First I tried to find an answer to the question where the place of time as a resource is determined by managers with regard to ranking resources in increasing company efficiency and performance. I represented the ranks with mean values. When analysing the averages, as *Figure 1* shows, the following ranking evolved: financial resource, material and technical resource, human resource, market, information, connection, and time.

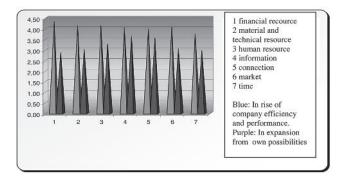


Figure 1: Study of the significance of resources Source: own research

The interviewed managers placed all the resources before time. Thus, it can be established that managers do not value the role of the time factor as required. A company may possess sufficient financial, material, technical and human resources, and it may have market connections and information about its constantly changing economic environment, but if it does not react to these changes in time, it possesses its resources unnecessarily as it cannot utilise them efficiently. This highlights the fact that it is necessary to explore the features of the time factor, and to confront managers with the results of the research.

An interesting feature of the model is that the bigger the company size is, the more important managers consider the time factor. Another is that young managers regard time as important more than elder ones. They probably believe in time management techniques, i.e. in the fact that they may be able to use their time more intensively. Whereas elder managers carry out most of their tasks as routine jobs, they have completed the rationalisation of their time management, and they believe they cannot increase the efficient utilisation of their time any more.

In the second part of the resource studies I analysed how much managers of the organisations involved in the research

consider the different resources to be expandable from their own possibilities. In this question managers' opinions were the same, regardless to sex, age and qualification. From this aspect time only precedes one resource, which means that managers consider time rather as a limit. It is true that time is a limited resource, but in the case of the other production factors it is limitation that is the motivation of business.

In the analysis of the main components the role of resources in increasing efficiency and performance is the following: time behaves the same way as market and connections (Table 1). Concerning importance, these resources follow material, technical, and financial resources, and precede human resources and information. The correlation between the elements of the factor can be explained by the fact that these resources are independent of the aims and inner conditions of the organisation; they are 'outer environmental factors'. Thus, it seems they cannot be influenced by the company, as opposed to the other resources which depend on inner conditions, and can be formed according to the company's own objectives and abilities, therefore their role in influencing productivity and efficiency may be greater, as well.

Table 1: Main components created by the importance of resources

Resources	Main components				
11000000	1.1a	1.1b	1.1c		
Material and technical resources	0,835				
Financial resources	0,809				
Connections		0,769			
Market		0,709			
Time		0,571			
Human resources			0,808		
Information			0,708		

KMO = 0,739; explained variance proportion = 67%

Source: own research

In the study how much they can be expanded, market and time represented a main component. These two resources are completely independent of the company's objectives; they are outer environmental factors, which cannot be expanded from inner sources.

#### 3. 2. Study of management tasks

In the study of management activity I analysed management tasks dividing them into two groups. One of the groups contains classical management tasks, which show the logically built order of management work (*Gulyás* et al., 2008). Thus, this group consists of obtaining information – communication – planning – decision making – commanding – organising – checking, named as functions related to organisational processes ('process tasks' in short). I examined separately the tasks that cannot definitely be placed in this logical process, and which can be related to several elements and functions. Therefore, the other group is made up of motivation management, forming organisational

culture, change management, quality management, organisation improvement, human resources management and forming organisational behaviour. As they are related to management work due to their content, I named them as content managing tasks. This division follows the *Berde* et al., 2003 classification of management tasks.

My aim with both groups was to find out in which management tasks time is considered significant, and in which tasks managers believe that time efficiency can be improved.

In the **process task** tests my objective was to explore how important managers consider the time factor and how much they suppose time efficiency can be increased in the case of obtaining information – communication – planning – decision making – commanding – organising – checking. The time factor classification of the interviewed managers is illustrated by the following numbers:

1.	Organising	3,981
2.	Decision making	3,978
3.	Planning	3,932
4.	Obtaining outer information	3,912
5.	Checking	3,902
6.	Communication	3,897
7.	Obtaining inner information	3,876
8.	Commanding	3,574

The high values show that the interviewed persons regard the time factor to be remarkable in the management tasks related to organisational processes.

Among the process tasks, only commanding has a slightly lower ranking compared to the other ones. In contrast, agricultural organisations ranked commanding as having the highest value (*Table 2*).

Table 2: Time factor in process tasks according to branches

Branch/ Task	Obt. inner infor- mation	Com- muni- cation	Decision making	Com- man- ding	Organi- sing	Check- ing
Agriculture	3,9502	3,8689	4,1180	3,7294	4,0492	3,9967
Food industry	3,9000	3,7576	3,7576	3,2333	3,8788	3,5000
Industry	3,9667	4,0333	4,1525	3,6102	4,1017	4,0172
Services	4,0000	4,1852	3,8375	3,5185	4,1235	3,9506
Trade	3,4651	3,6047	3,7209	3,4884	3,5814	3,7442
Other	3,7241	3,8488	3,7471	3,3103	3,8161	3,6744
TOTAL	3,8887	3,8997	3,9835	3,5871	3,9885	3,9022

Source: Own research

Commanding means interpreting the company's objectives to employees in a way that makes them committed to them, and that motivates them to perform at a high standard. This might be problematic indeed in agriculture, as continuous employment is difficult there due to agricultural work processes being seasonal, and work load being constantly changing and unbalanced. A number of employees can only be employed as occasional or seasonal

workers. Occasional or seasonal workers are less committed, and there are fewer tools available for managers to encourage them to perform at a high level (*Gulyás – Turcsányi* et al., 2008).

According to the main component analysis, managers – especially those of larger companies – thought that the time factor has the greatest significance in exploring problems. Within the organisation efficient communication and quick inner information flow are of vital importance, thus the proper operation of the organisation can be provided, and this is manifested in results as well. In addition, obtaining outer information in due time and planning provide an advantage in the market competition. Besides, time efficiency can be improved the most in the functions of preparing the task, in decision making, planning and commanding.

The different **content management tasks** have very different averages as values. As it can be seen in *Figure 2*, according to the managers of the organisations involved in the research, among the content functions time has the greatest significance in quality management, organisation improvement and human resources management. These are represented by the averages of 3.7–3.8. Motivation management, change management and influencing company behaviour have medium rankings with values around 3.5. The last place is taken by forming company culture, with an average of 3.38.

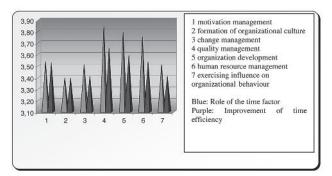


Figure 2: The role of the time factor in content management tasks Source: own research

The aim of quality management is quality control, creating and operating quality control systems. The attitude to quality has changed significantly in the last ten years. From quality control based on standards, which was based on checking the parameters of the final product and measuring product quality (*Rácz* et al., 1997), it went through process regulation to process control. According to today's attitude, quality is not only related to the final product. It is not only influenced by the product-making activity, but also human factors like company culture, management and marketing. Successful quality improvement requires the absolute commitment of the management, the active involvement of all the employees, and extensive training (*Berde* et al., 2003). This explains why quality management, organisation improvement and HR management are connected in the issue that I studied.

The highest level of quality is satisfying the customer's hidden needs. It is easy to understand that the company that realises this sooner can gain an advantage in the competition

and more income. Therefore, in the tested model it is the time factor that has the highest value concerning quality management.

It reflects branch peculiarities that in motivation management it is the service branch, and in quality management it is industry and food industry that gave the highest ranks to time. In the case of production branches, the chances of organisations in market competition are greatly influenced by the question what quality products they are able to release, how much these products meet consumers' needs, how balanced the quality of product release is, and how much companies are able to strengthen their market positions by improving the quality of their products (Varga and colleagues et al., 1997). In the last few decades the level of customers' quality requirements has especially grown in food industry. Thus, industrial and food industrial companies can only maintain, or increase, their market potentials if they launch products of the highest quality in the market.

According to the main component analysis of content tasks, the time factor has the most significant role in the case of forming company culture, motivation management and influencing company behaviour, which provide 'inertia'. This is acceptable, as all the three functions have effects for a long time (*Gulyás* et al., 2006). The longer period of time means more time expenditure. However, it is refunded as on a long term basis stabile companies are characterised by efficiency.

I also created main components for describing the connection between the improvability of time efficiency and content management tasks. The structure that evolved is almost the same as the previous one, concerning the role of the time factor. The further improvement of time efficiency is the most possible in forming motivation management, company culture, and influencing company behaviour. These functions are determined by the company objective. The main objective of a company at all times is effective operation. It is encouraging that the interviewed managers believe the efficient utilisation of time can be most improved in this aspect.

#### 3.3. Studies of change

The interest of company managers is to maintain the level of performance they have achieved, and to be able to improve it continuously. That is one of the conditions of the company's survival, capability of living and growing on a long term basis. At the same time, however, there are constant changes in the outer environment of most companies, and these companies are forced to adjust to their outer environment. That is why companies can only ensure their existence and survival by constant, smaller or bigger modifications and changes. In this respect companies can be regarded as dynamic organisations. It is a rather difficult task, and a constant activity at the same time, for companies and their managers to create a dynamic balance between permanence and change, or in other words, between stability and flexibility. This especially causes problems when there are such enormous changes in the outer environment of companies as, for instance, the ones that have occurred in our

region in the past few years (*Dobák* et al., 2007). It might be decisive for organisations how fast and how effectively they can adjust to the outer environment. This encouraged me to study the role of the time factor in the change processes, and the improvability of time efficiency.

I started the analysis of change processes with studying the averages. *Figure 3* shows the classification of the time factor and the improvability of time efficiency in the case of organisational, technological, culture, market, management, profile and regulation changes. As it can be seen in the figure, the interviewed managers regarded the time factor as the most remarkable in market and technological changes. They considered it to be of medium importance in the case of organisational, management, regulation and profile changes. In this study time has the smallest significance in culture change.

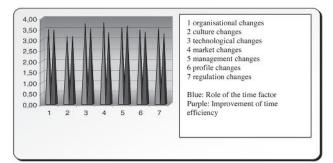


Figure 3: Analysis of change processes Source: own research

I found significant differences in opinions examining them according to branches, as well. In technological, market and profile changes it is industrial companies, and in management changes it is agricultural companies that classified time as having the highest value. The managers of industrial companies wish to follow, if needed, the tactics of 'reducing cost and increasing income' (Varga and his colleagues et al., 1997), which is part of the basic recipe of crisis management. In order to achieve that, they are ready to accomplish profile clearance, cost rationalisation, product and market development in the shortest possible time. Compared to the other branches, agriculture is more sensitive to management changes. That may result from the fact that, following the change in the political system, this branch went through company and management structure changes together with the change of the owners' structure, related to privatisation and compensation. Agricultural companies realised that immediate reaction is important in the case of the changes mentioned above, too. As for market and technological changes, time is classified with high values by the managers of industrial, limited liability companies, who work long hours.

## 3.4. Studies of reaction time

The success and efficiency of companies greatly depend on how fast they can react to environmental changes. Changes serve the long-term maintenance and improvement of company performance, which is only possible through constant renewal more and more. Ideas and decisions of change can only come true if there are suitable resources available as support. Successful changes can only be accomplished with sufficient time, material and human expenditure (Dobák et al., 2007).

The study of reaction time is examining time expenditure related to changes. Smaller time expenditure means more effective and more economical resource utilisation. On the basis of this, I tried to find the factors which influence reaction time the most, and to what extent reaction time can be reduced with management tools.

The average of the complex evaluation of the whole study model is shown by *Figure 4*, in which the classifications of the studied factors can be compared, and their rankings can be established.

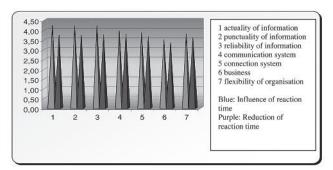


Figure 4: Study of reaction time Source: own research

According to the interviewed managers, the speed of reaction is the most promoted by information and communication, and the most hindered by human factors and company structure. They believe that immediate reaction is ensured if the motivated, performance oriented members of the organisation having sufficient information communicate well. In fact, if the members of the organisation are not committed to the success of the company, and if they do not possess up-to-date information, or do not communicate adequately, the adjustment ability of the company will be damaged, and it will lose its ability to adapt to changes immediately. Thus it will take a rather disadvantageous position in the competition.

#### 3.5. Effect studies

The effect studies consist of three parts. First I examined how time as a limited resource influences management tasks. In the second part I tried to find an answer to the question how time would affect management tasks if it was unlimited. In the third part I assessed the amount of time – whether it grew, decreased or remained the same – available for the different management tasks in the last few years.

As *Table 3* shows, if time is limited, it has a positive effect on motivation, commanding, change and decision making, whereas in the case of the other tasks its effect is rather negative. Of course, if time was unlimited, it would have a positive effect on all management tasks.

Table 3: The effect of limited and 'unlimited' time on management tasks

Management task	Time			
Management task	limited	unlimited		
Information	2,32	1,84		
Communication	2,19	1,78		
Planning	2,33	1,93		
Decision making	2,09	1,84		
Motivation	1,70	1,72		
Change	2,07	1,87		
Commanding	1,83	1,67		
Organising	2,29	1,94		
Checking	2,30	1,92		

1: neutral, 2: positive, 3: negative

Source: own research

In the past few years, for most managers the amount of time spent performing the different tasks has not changed. According to *Table 4*, in the case of checking most managers have experienced a decrease, and a slight increase in organising. A significant change is that almost one third of the managers has found more time to deal with information and communication, and has spent less time planning and making decisions. On the basis of these changes in time expenditure it can be established that among the tasks organising, information and communication have come into the limelight, while checking, planning and decision making are, to some extent, remain in the background in management work these days.

Table 4: Study of time expenditure in management tasks

Management task	Remained the same		Increased		Decreased	
	Db	%	db	%	db	%
Information	251	40,6	200	32,4	167	27,0
Communication	228	36,9	212	34,3	178	28,8
Planning	242	39,3	170	27,6	204	33,1
Decision making	286	46,7	121	19,7	206	33,6
Motivation	348	56,4	145	23,5	124	20,1
Change	284	46,0	162	26,3	171	27,7
Commanding	352	57,1	103	16,7	161	26,1
Organising	210	33,9	212	34,2	197	31,8
Checking	203	33,0	182	29,5	231	37,5

Source: own research

### 4. Conclusions

I analysed 625 questionnaires containing management preference examinations, investigating time factor and time efficiency with regard to resources, management tasks and changes, with scientifically established statistical methods. According to the available national and international technical literature, it can be stated that this kind of approach and research of the time factor is unique.

During my literary and theoretical investigation I established that even time possesses features characterising resources:

- with its utilisation it is possible to gain profit,
- it appears as a special expenditure,
- it has value and price,
- there is shortage of it, you have to manage it well,
- it can be replaced and completed by other resources,
- it can be mobilised, in the sense that it can be freed.

Unique characteristic features of time are that it is limited, irreversible, it cannot be stored, and it is available for everyone. Time is an abstract notion, and is difficult to handle among physical possessions. On the one hand, it is an objective, outer natural necessity, but on the other hand, its utilisation depends on human will.

Change directs attention on the time factor from the point of view of the organisation, and management does the same from that of the person. Thus it can be established that from the organisational and managing viewpoint time is an objectively existing, well-defined economic factor which can be regarded as a resource, as well. Its effect has two directions: limit and advantage at the same time. After I had created the definition of time as a resource, I mentioned it as one in my investigations. For the managers questioned it was acceptable, they interpreted it well and handled it together with other resources.

During the examination of managing activities, I divided managing tasks into two groups. In one of them there are the classical management tasks, which I named as process tasks in short. I examined separately the tasks that cannot definitely be placed in this logical process, and which can be related to several elements and functions. They are the content tasks.

Among the process tasks the role of the time factor was considered by the managers questioned as the most important in organising and decision making. They were followed by planning, obtaining outer information, checking, communication and obtaining inner information. Time has the least significance in commanding.

According to the managers of the organisations involved in the research, among the content functions time has the greatest significance in quality management, organisation improvement and human resources management. Successful quality improvement requires total commitment of the management, active involvement of all the employees and extensive training. This explains why quality management, organisation improvement and HR management are handled together in the question I examined.

According to the studies of change, it can be established that the time factor has the greatest importance, in the interviewed managers' opinions, in the case of industrial and technological changes. As they see it, reaction time is mostly influenced by the punctuality, up-to-dateness and reliability of information.

On the basis of the change in time expenditure, it can be pointed out that among tasks organising, information and communication have come into the limelight, while checking, planning and decision making are, to some extent, remain in the background in management work nowadays.

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