

HOW MUCH 'MANAGERIAL' IS THE MANAGERS' TIME?

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Summary

This study integrates results from two approaches to study managerial work. First, it focuses on estimating the difference between the actual division of managers' time into 'Primary' (dedicating in order to care about the main managerial goals), and 'Secondary time' (spending to afford matters of secondary importance) on one hand, and the preferred apportion of time on the other. Second, it investigates the eventual relationship, which exists between managers' results and the way they use their time into primary and secondary. In section 2, the study's framework and hypothesis is given as an attempt to answer the questions: 'How managerial is managers' time?' 'Is there any real relationship between managerial time and managers' effectiveness?' In section 3, some necessary information about our study is given explaining the methodology used in order to gather and analyse the statistical data. In section 4, the methodology used is illustrated followed by section 5 where the results of the study are given. Groups of managers, which have similar behaviours about time, were first identified and major differences between them were described. Then an approach aiming to relate the managers' behaviour with their results is attempted by comparing the results between groups of managers having similar and different behaviour about time use. Finally, our empirical study's results show that the higher the percentage of 'P' time (as primary we consider and define the time that managers devote to accomplish the most important of their goals) managers have, the greater probability to have better results. The implications of these findings, for the study of managerial effectiveness, are discussed and further research is proposed.

Key words: Time Management, Top managers division of time, Managerial effectiveness, Primary and Secondary time.

1. Introduction

Time, located between the five basic skills everyone needs for interacting in the organisation, O'Neal, M. A. (1985), is considered by writers and managers as the most valuable of the sources that they dispose (Servan-Schreiber, J. L. 1983; Cocherel, M. 1984; Seiwert, L. J. 1987; Stalk, G. Jr. 1988; Oshagbemi, T. 1995; Wright, T. A. 1997; Collins, J. 1999).¹

However, many obstacles are bothering managers to use their time as effectively as they wished to. Apportionment of time into various activities depending on their priorities are based according to their relative importance, seems to be the most serious among them. In fact, entrapment in routine tasks is keeping top managers from being true leaders (Oncken, W. 1984; Bennis, W. 1989). The reason, as eloquently had asserted by Dorney, C. R. (1988), is that: 'the more responsibility people have, the more valuable their time and more difficult the time-juggling act becomes'. However, studies about time are generally neglected during the two last decades (Das, H. L. 1986; Bluedorn, A. C. & Denhardt, R. B. 1988; Douglas, M. E. & Douglas, D. N. 1993; Macan, T. H. 1994; Oshagbemi, T. 1995; Ancona, D. and Chong, C. L. 1996; Wright, T. A. 1997).² Referring to the previous work about managerial work, we can mention that these more or less had two different but complementary orientations

a) The 'Work Activities' approach of which main subject is to locate and define the great number of functions or activities which absorb the managers' time, or estimate how much time is dedicating to each of them (Carlson, S. 1951; Mintzberg, H. 1973; Kurke, L. B., Aldrich, H. E. 1983; Kurke, L. B., Aldrich, H. E. 1983; Stewart, R. 1988, Oshagbemi, T. 1995), and

b) The 'Process Characteristics' approach of which subject is the study of the characteristics that managers' behaviour about time have in common (McCormick, E. J., Jeanneret, P. R. and Mecham, R. C. 1972; Tornow, W. & Pinto, P. 1976; Whitely, W. 1985; Tsakiri, T. M. 1998, Tsakiri, T. M. 2001).

Later on, a number of significant studies having as their main subject to classify the managerial behaviour in various types as the Type A behaviour and the Protestant Work Ethic were conducted. Among these kinds of works there are some, which are directly, or indirectly relating to the managerial behaviour and some of its particular components with the manager's effectiveness and performance. The relevant of these works are examining how various managerial behaviours (whatever the way they are adopted, as for example by experience or by time management special education), achieve the goals or not. At the same time some significant studies were undertaken aiming to create methods concerning the data gathering, as questionnaires (JAS, TSQ FPS, TUS, TMB etc.), models and techniques, which intend to analyse and evaluate the statistical data, check

and estimate the reliability and validity of the different methods and techniques (Bond, M. J. and Feather, N.T. 1988; Macan, T. H. 1994; Mudrack, E. P. 1997; Mudrack, E. P. 1999; Francis-Smythe, I. T. Robertson, I. T. 1999).

Further, there are only few papers about manager's goals or objectives, aiming mainly to estimate the level of their accomplishment. However, researches studying the direct or indirect relationship between the two fields, the manager's behaviour about time in one hand and their goals realization in the other, these are even less in number. However, there are some quite new and interesting works of which subjects connect these two fields and which indirectly refer to the way of the managers' behaviour. These researches have to estimate and measure managerial effectiveness or performance taking into consideration the meaning of the quality of managerial time and not of the quantity (Yermack, D. 1996; Conger, J. A., Finegold, D., and Lawler, E. 1998; Li, J. & Ang, J. S. 2000; Collins, J. 1999).³

In conclusion, the questions: 'How do managers spend their time?' 'How priorities setting effects their results?' remain basic questions. Even these had focused the interest of an almost great number of writers or practitioners who have been occupied with various management-related issues. Most of them top managers or broadly known consultants are focusing on subjects as 'how to save time' suggesting various methods or techniques to give some useful rules and advices. It happens, publications of such a kind to be characterized by scientists and researchers even as 'gimmicks' and the writers as ... charlatans! Despite the paucity of research, the claims of time management consultants and writers of time management books appear logical and lead to the tentative hypothesis that perceived control over time is positively related to supervisors ratings of job performance. That was perhaps the reason that induced some scientists to investigate and check the truth of practitioners' beliefs and assess the effect of some managerial behaviors upon managers' results. However, the quality of managers' time or their 'Priorities setting' remains a subject that demand to be studied further on.

Taking in mind the existing related literature of all kind, and that little research has been conducted on the relationship between job performance and time management, these simple questions have arised to us: 'How managerial is managers' time? 'Are managers satisfied by the way they use their time?' 'Where is a real relationship between managerial time and

managers' effectiveness'? Or finally "How much 'managerial' is the managers' time?" That was for us a powerful motive to answer these questions believing that our study could constitute an interesting approach about managers' effectiveness providing insight to both academics and practitioners. First, by stimulating academics to search farther and contribute to the knowledge pool, in order to give answers to the existing similar questions. Second by helping practitioners to understand better the significant impact that has the real managerial time (or the quality and not the quantity of time) that they attribute in different activities to the goals achievement and take that into account in order to improve their effectiveness. Our study could not be classified between those of the 'work activities' approach, which are seeking to find out how manager's time is spent by them on different activities. On the contrary, we can perhaps count it among these of the 'process characteristics' approach, which seek to answer the question: 'What are the common process characteristics found among managerial behaviour?' (e.g., features such as duration of activity, mode of communication, mode of contacts). That is for two main reasons. First, because our study is aiming to estimate how managers are spending their time according to their priorities (independently of the kind of their activities). Second, because its data's gathering methods (interviews, questionnaires) are considered as indirect techniques, which characterise the studies of the "process characteristics' approach" (Oshagbemi, T. 1995).

2. The theoretical work frame: Primary and Secondary Time

Aiming to answer our basic question "*How much 'managerial' is the managers' time?*", we attempted first to estimate the distance between: a) the actual way that managers use their time and the way they preferred to, or in other words, the difference between the quantity and the quality of managers' time, b) the eventual influence that the way of using of time has to the manager's results. To do that we distinguished the total managers' working time (TWT) into two main categories: The 'Primary' and 'Secondary' time. As Primary (P), we consider and define the time that managers devote to accomplish the most important of their goals. As Secondary time (S), we consider and define the amount of time that managers spend

- i) to deal with every day's routine matters (R),

ii) to face any kind of problems that appears all of a sudden and demand to be treated urgently even if these are of secondary importance (U),

iii) the lost time (L).⁴

Then, we consider that

$$\text{TWT} = \text{P} + \text{S} \quad (1)$$

$$\text{S} = \text{R} + \text{U} \quad (2)$$

$$\text{TWT} = \text{P} + \text{R} + \text{U} + \text{L} \quad (3)$$

In our study we assume the time 'P' as that single variable which represents and reflects the totality of managerial effectiveness and managers' job performance. As it is a common practice, we could do that as with any one of other relevant criteria. This is the case in all studies where a single variable (such as productivity, effectiveness etc.), may be taken as a basis for evaluation of predictor variables (Seashor, S. E. and Indik, B. P. and Georgopoulos, B. S. 1960; Santori, R. and Aderson, A. D. 1987). So, we were interested to collect data about:

a) In average the actual apportion of managers' total weekly working time (AAWWT)* is divided by the individual percentages of 'R', 'U', 'P' and 'L' which are symbolised respectively by 'Ra', 'Ua', 'Pa' and 'La'. The actual division of time is considered as the result of the organisational conditions of the participant's work as they meet his personal behaviour about time. So, we could have for every case of manager

$$\text{AAWWT} = \text{Ra} + \text{Ua} + \text{Pa} + \text{La} \quad (4)$$

b) The division into the same categories 'R', 'U', 'P', and 'L' of every case of manager the total weekly working time according to the way that he preferred to allocate it as more suitable to his priorities depending on the real needs and his hierarchical level (PAWWTb).

We symbolise with "Rb", "Ub" and "Pb", the average portion of time that each manager - participant would prefer to spend respectively for 'R', 'U' and 'P'. In this case it would be obvious that L=0. So, for every participant we will have:

$$\text{PAWWT}_b = R_b + U_b + P_b \quad (5)$$

Having in mind the problems issuing from data accuracy, we also scheduled to gather data in order to check the manager's participants' answers. So, we also were provided with data concerning

c) The division of participants' time in a random day, considering for every case of them as such a day one of their interviews days. So, according to the programme of that random working day, they will have to report the portions of their total time (RDPAWT) that they intended to spend for 'R', 'U', 'P', which are symbolised respectively with 'Rc', 'Uc' and 'Pc'. There were no reasons for us to inquire about 'Lc' because nobody is programming time to be lost! So, for every participant we had

$$\text{RDPWT}_c = R_c + U_c + P_c \quad (6)$$

d) The managers' total amount of time that they actually would have spent that same random day (RDSWT) for 'R', 'U', 'P' and 'L', symbolised respectively with "Rd", "Ud", "Pd", and "Ld".

So, for every participant we had

$$\text{RDSWT} = R_d + U_d + P_d + L_d \quad (7)$$

Table 1 below displays the symbols of all case a, b, c and d

TABLE 1

Symbols of case a, b, c and d

	AAWWT:a	PAWWT: B	RDPAWT: C	d: RDSWT
R	Ra	Rb	Rc	Rd
U	Ua	Ub	Uc	Ud
P	Pa	Pb	Pc	Pd
L	La	-	-	-

AAWWT (a): Actual distribution of participants' total weekly working time.

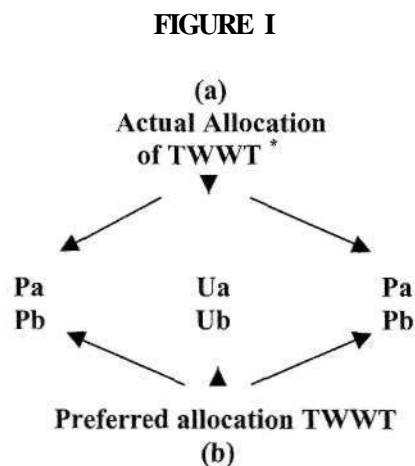
PAWWT (b) Wished distribution of participants' total weekly working time.

RDPAWT (c): Random's Day Programmed Distribution Working Time.

RDSWT (d): Random's Day Spent Working Time.

According to the cases mentioned above (a), (b), (c) and (d) and the data corresponding to them reported by the participants (see below Figures No I and II), we intended to find out

1) The relationship existing between the actual (case a) and the preferred (case b) division of time. This comparison helped us: i) to find out the size of the divergence existing between the two cases (a) and (b), ii) to investigate the influence that this divergence represents against the results of the top managers, approaching by comparing groups of participants with similar behaviour with groups of participants having similar level of goals' achievement.



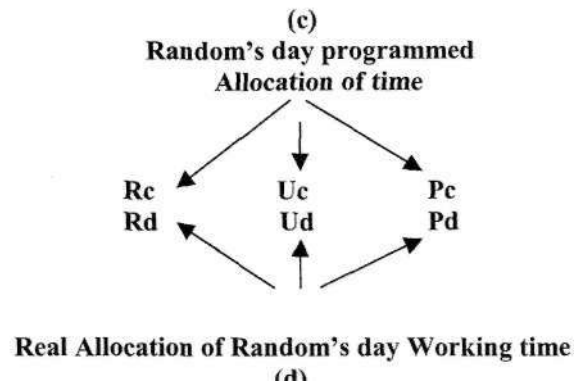
2) The relationship existing between the case (c) {division of a random day's programme} and (d) {division of time realised that random day} (See Figure II below). This comparison helped us: i) to estimate the difference existing between (c) and (d) division of time, ii) to compare the difference (c)-(d) with (a)-(b). This comparison will help us to verify how the participants' answers are corresponding to their real situation.

3. Methodology

3.1 The empirical study - Questionnaires

Our survey took place during 1996-1997 aiming to gather data that were referring to the 1995-1997 period of time. On the base of "Structured

FIGURE II



* TWWT: Total managers' Weekly Working Time

Questionnaires", interviews carried out personally by the author in the participants' workplace during workdays and given company time to respond. The division of managers' time into the basic categories, 'Primary' and 'Secondary', is based on their self-report according to the 'Respondent Summary Estimate' (Bowey, A. M, Thorpe, R. and Hellier, P. 1986). However, we were aware that using 'self-report' is possible for managers to overestimate or underestimate the portions of time to quite a considerable extent (Juster, T. 1986; Juster, T. and Stafford, F. 1991; Messmer, M. 1998; Block, R. A. 1989; Buehler, R., Griffin, D. and Ross, M. 1994; Burt, C. D. B. and Kemp, S. 1994; Oshagbemi, T. 1995; Francis-Smythe, I. T., Robertson, I. T. 1999). Besides, limitations of the managers' memory make difficult to obtain accurate estimations through the standard questionnaire methods or process characteristics, as activity duration (Whitely, W. 1985). Being also conscious that interviews and 'structured questionnaires' might have problems of answers being honest, valid and 'Halo Effects', we used supplementary the 'Critical Event Method' or 'Critical Incident Technique' and the Method of Instantaneous Observation, to serve as additional check for the data collected by the managers' self-report answers. Otherwise, as Stewart, R. (1988) suggests, the combination of multiple methods of data collection limits considerably their faults. Most of the questionnaire items appeared in the same 5-point Likert-type scale form, from never (1 point) to always (5 points). Negatively worded items were reverse scored. Some items were given in both ways, affirmatively and negatively, in order to

check the honesty of the corresponding answers. The first group of questions was formed to gather information about 'the past' of the participants. This kind of information was related to the personal and managerial status of participants, for example age, position, background, professional experience, job tenure, the length of time in years each participant had been in his or her position, number of subordinates in direct and indirect aspects. The second group of questions was mainly aiming to gather information about the participants' division of total working time into three basic categories: The time spending to care about routine matters, the time spending for various urgencies and the time dedicate to care about important matters and new first priority goals. The organization of this approach was attempted in the five following stages where the participants were asked to estimate:

1) The actual division of their average weekly working time into the basic categories (P, S, U) as it is noted above regardless of the reasons or conditions which impose such a division.

2) The division of their average weekly working time into the three basic categories according to their real needs taking into account the priorities imposed by the degree of their importance, or the apportion of participants' time into these same categories according to the importance of their activities.

3) The division into the basic categories of the working time of a random day according to the participants written program of this day.

4) The real allocation of participants working time at this same random day into the basic categories of time.

5) The results that every participant had obtained during the years 1995, 1996, 1997, concerning the average of two of his goals of first priority and importance as it is explained later on.

We are approaching the answer at our first basic question 'How managerial is managers time?', and the investigation of the existing difference between managerial and non managerial managers' time, by corresponding it with the difference existing between the actual way that managers allocate their time between tasks of first and second priority and the way that they preferred to.

3.2 The sample

The sample of our study consisted of 60 top executives who provided information on gender (57 men, 3 women or 5%), race, age, education and

company. They were employed full-time at paying jobs, having a mean age 43,6 years, most of them (52 out of 60), were married or in a de facto relationship. The proportion of the participants according to their specific job titles is as follows

- (1) President of the board, Vice President, Chief Executive Officer, Vice Chief Executive Officer, Chairman Division, General Manager:
13 participants or 22 % of the total
- (2) Division General Manager Plant Manager, Engineering Manager, Production Manager:
10 participants or 17 %
- (3) Commercial Manager, Sails Manager, Marketing Manager, Exportation Manager
15 participants or 25 %
- (4) Financial Manager, Account Manager
15 participants or 25 %
- (5) Personnel Manager, Administration Manager, Public Relations Manager
7 participants or 11 %

The proportion of participants and their classification according to their specific job titles and age is displaying at Table 2 which follows.

TABLE 2

Classification according to the participants' Age and Work position

AGE (YEARS)	(1) P/NTS %		(2) P/NTS %		(3) P/NTS %		(4) P/NTS %		(5) P/NTS %		TOTAL	
28-39	0	0%	3	5%	7	11,7 %	2	3,4 %	4	6%	16	26,1%
40-52	10	17%	6	10%	7	11,7 %	9	5,0%	3	5%	35	58,7%
53-60	3	5%	1	2%	1	1,6%	4	6,6%	0	0%	9	15,2%
TOTAL	13	22%	10	17%	15	25,0%	15	25,0%	7	11%	60	100,0%

The respondents' educational attainment was as follows: 11% high school or some college, 57% College degree and 32% master's degree education. All respondents were supervising other employees (3 to 1200), thus three classes were formed according to the number of their subordinates as it is mentioned below:

CLASSES	No of Subordinates	Cases of Participants
A	from 1 to 10	29 or 48%
B	from 11 to 100	19 or 32%
C	from 101 to 1200	12 or 20%

Special attention is paid to the sampling in the face of heterogeneity across time. Thus, a number of conditions are necessary to lay down so that they function as precautions in order to avoid biases deriving from the existence of some exceptional situations. These could differentiate to a significant degree the homogeneity of the sample and consequently the results of the study. As such situations we can mention those related to the top managers either having just began in their present position or be there for a short while, or working totally on a new business, or in companies just established. It is obvious that in these cases the goals setting and its achievement would a lot differ from the rest of the sample's cases. So, the conditions fixed for a top manager to participate in our sample were about the following areas

- i) the participants position,
- ii) the companies where he or she is working in, and
- iii) the goals he or she is attempted to accomplish.

So, precisely, the participant in our sample should

1) Work in one of the bigger companies of their branch, established at least seven years before the beginning of the study, and stay in their present position at least for five years. So, the job-tenure in years for each participant is ranging from five to 23 years except one case that has job-tenure three years only. The apportion of participants according to their job-tenure is as follows

CLASSES	No of Years	No of Participants
A	5*	35 or 58%
B	6 to 10	18 or 30%
C	11 to 23	7 or 12%

* including one case that exceptionally has three years

2) Be fully responsible for the realization of two professional goals of the first priority and importance. According to the participants' position these two goals might be referring to the improvement about productivity,

quality, cooperation, sales etc. Furthermore these two goals have to be written mostly in terms of detailed financial numbers (as a percentage) during the years 1995, 1996, 1997, and would remain in value to attempt for this period of time (1995 - 1997).

All conditions mentioned above in combination with the top managers scarcity of available time, constituted some significant difficulties and finally the main reason to reduce the number of cases that could correspond and form our sample. So, according to our estimation the remaining cases were one out of four.

We also have to add that during all kind of contacts with participants (from the preparation period of time until the completion of interviews with participants), personal observations were systematically registered in order to verify their answers' sincerity. To do that the 'Critical Event Method' (or 'Critical Incident Technique') and the Method of Instantaneous Observation were supplementary used.

It is interesting to add that some later finding, as the conclusions of the recent research of Zaheer, S., Stuart, A., and Zaheer, A. Z. (1999), about 'Time Scales', actually provides support for the setting of such cautions as they are mentioned above. Indeed they are proposing to pay particular attention aiming to minimize the impact of conditions that could as biases have a significant effect on the study's results.

3.3 The model of the study

In order to estimate the impact that eventually had the amount of 'P' time upon top managers' results, we applied the methodology that includes the following three main steps

- 1) Determine the goals of each participant and the level of their goals' realisation,
- 2) Classify the participants into one of the three classes according to their least, medium, or most amount of 'P' time.
- 3) Investigate the relationship between the amount of 'P' time and the level of success of participants' goals.

Detailed description of these three main steps is continued on 3.3.1, 3.3.2, and 3.3.3.

3.3.1 Classify the participants according to their 'P' time.

The amount of time that participants are dedicating for 'P', are varying from 10% to 80%. So, three classes of 'P' time (i), (ii) and (iii) have been formed

i) Managers who actually spent the least amount of 'P' time varying from 10% to 25%, (ii) those who spent the medium amount of 'P' time varying from 30% to 49%, and (iii) finally, those who spent the most amount of their 'P' time varying from 50% to 80%. This is clearly shown below:

Classes of 'P' time *	the participants' number
1) 10% to 25%	32 or 53%
2) 30% to 49%	21 or 35%
3) 50% to 80%	7 or 12%

* As a percentage of the Total Weekly Working Time.

3.3.2 Determine the participants' level of succeeding their goals.

The determination of the participants' level of succeeding their goals is based on the following procedure containing the stages A, B, and C.

Stage A

i) According the conditions mentioned above (see 3.2. p. 13-17), each participant had to identify two of his or her goals of the greatest importance which were to be achieved during the years 1995, 1996, 1997, and specify precisely the 'extent' of each of them for these years. For example a Sales Manager as participant might have:

- a) As first goal: 'The sales augmentation':
for 1995 by 4.5%, for 1996 by 1.5%, for 1997 by 0.3%
- b) As second goal: 'The market share to augment':
for 1995 by 2.4%, for 1996 by 1.5%, for 1997 by 0.6%

ii) We get the average of the two main goals for every participant making a single number for the three years. According to our example we had:

for the first goal: $4.5\% + 1.5\% + 0.3\% = 6.3\% : 3 = 2.1\%$

for the second goal: $2,4\% + 1,5\% + 0,6\% = 4,5\% : 3 = 1,5\%$

iii) We also averaged the number of the first goal with that of the second and then we came up with a unique number for every participant. So, we have the following:

$$2,1\% + 1,5\% = 3,6\% : 2 = 1,8\%$$

Stage B:

Following the same procedure described above (stage A), we manipulated the results realized by the participants concerning each one of their goals. Then we compared every goal with its result using the same way as it is described above and then we formed a number representing the degree of the goals accomplished for every participant.

So, the participant of our example concerning his first goal, had realized:

'The sales augmentation'	for 1995	for 1996	for 1997
	of 3,9%	of 1,9%	of 0,2%

So, in average the augmentation is: $3,9\% + 1,9\% + 0,2\% = 6,0 : 3 = 2,0\%$

About the results of his second goal

'The augm/tion of the market share'	for 1995	for 1996	for 1997
	of 1,5%	of 1,5%	of 0,6%

Thus, the average of the three years is:

$$1,5\% + 1,5\% + 0,6\% = 3,6\% : 3 = 1,2\%$$

So, for this case the number representing the degree of the goals' realization is

$$2,0\% + 1,2\% = 3,2 : 2 = 1,6\%$$

Continuing on we compared the number (percentage), representing the average of the participants' goals on one hand, with the number (percentage) representing the average degree of his goals accomplished on the other hand, and then we calculated the degree of success of his goals. In our example we had to compare the numbers 1,6% and 1,8%, so we have:

$1,6\% / 1,8\% = 88,9\%$ that represents the degree of the goals' success of this participant.

Stage C:

This stage consists of the following steps

i) A list was formed including the degree of the accomplished goals of all the participants. The list started from 51,5%, which reflected the worst result attempted by a participant, to 112,0%, which showed the best result attempted by the participant.

ii) The list (as Finegold, D., and Lawler, E. 1998, did), was split into three classes of participants, according to the degree of their goals accomplished as follows: The first class included 19 cases, which corresponds to the managers with the least level of goals accomplished (51,5% to 86,0%). The second class included also 19 participants, which corresponds to the managers with a medium level of goals accomplished (87,0% to 96,5%). In the case of our example this number is 88,9% and this participant is classified in class (ii). The third class included 22 participants who had accomplished their main goals at the higher degree (97,0% to 110,5%).

Classes of Levels	Number of Participants
i) 51,5%-86,0%	19
ii) 87,0%-96,5%	19
iii) 97,0%-112,0%	22
Total	60

3.3.3 The relationship between the 'P' time & the level of participants' success

Attending to find out the eventual relationship existing between the amounts of time dedicated for matters characterised as 'P' (managerial time) and the level of the goals accomplished, we proceeded as follows

i) Three groups of participants had been formed: LLA, MdLA, and MsLA, corresponding respectively to the least, medium and most level of the participants level of goals' achieved. On each one of these groups LLA, MdLA, and MsLA, we have classified the participants according to the size of their 'P' time. The following Table 3 is constructed

The relative comparison is displayed at Table 3 that follows.

TABLE 3

Relationship between 'Pa' allocation and goals success' level

Classes of 'Pa' time	(a) LLR	(b) MLR	(c) HLR
I) 0-25%	9 or 53.0%	13 or 59.1%	2 or 9.5%
II) 30-49%	5 or 29.4%	6 or 27.3%	11 or 52.4%
III) 50-80%	3 or 17.6%	3 or 13.6%	8 or 38.1%
Total	17 or 100.0%	22 or 100.0	21 or 100.0%

Where: I, II and III: Represent respectively the smaller, the middle and the bigger portion of time that participants use as "Pa".

(a) Displays the number of participants having the lower level of their goals' achievement,

(b) Displays the number of participants having the middle level of their goals' achievement,

(c) Displays the number of participants having the higher level of their goals' achievement.

3.4 Statistical Methodology and empirical results

The methodology applied had two main purposes. First to estimate and check the relationships between the populations of cases (a) and (b), (c) and (d), (a) and (c) and (b) and (d), and second the relationship between 'p' time and goals success' level. That was accomplished by the following steps: 1) The control of means for every pair of populations. 2) The control of variations (apportion F). 3) The control of independence (apportion X^2).

In order to examine the relationship between the division of time at the cases (a), (b), (c) and (d), according to the equation (4), (5), (6), (7), we had to estimate the relationship of the means between: R_a and R_b , U_a and U_b , P_a and P_b . So, we define

μR_a as the mean of R_a , μR_b as the mean of R_b ,

μU_a as the mean of U_a , μU_b as the mean of U_b ,

μP_a as the mean of P_a , μP_b as the mean of P_b .

The means of every pair of populations was conducted according to the following results

1) $\mu R_a = 48,37\%$ and $\mu R_b = 34,94\%$. So, $\mu R_a > \mu R_b$ and there is a significant divergence of 13,4334% between the actual amount of time spending for R and the amount that participants would prefer to spent.

Testing the results mentioned above we found that:

$\mu Ra > \mu Rb$ given that: t of the case = $|3,677| > |1,98|$ ($1,98 = t$ of the tables), or probability of case = $\{0,000\} \{0,05\}$.

To verify that, we did the two following tests

i) The control of variations (apportion F) for equality of variances of the two populations (a) and (b), which showed that these are equal, because $\text{prob} = 0,797 > 0,05\%$.

ii) The control of independence of the two populations (the Chi-Square Tests or apportion X^2), which showed that these are equal, because $\text{prob} = 0,156 > 0,05\%$. So, we are at the supposition H_0 , where populations are independent.

The meaning of $\mu Ra > \mu Rb$, is that managers spent for routine matters (or as non managerial) much more time in comparison to that they preferred to spend. It's clear that giving more time to care about routine matters, that occurs lack of time available in order to be dedicate to the managers' main goals' achievement, or to their real managerial time. Managers realise the need to limit the portion of time that they spend as 'R'. Indeed, data of Tables 4 and 5 that follow show the cases of participants that have reported that they would prefer to minimize R time are much more in comparison with those they don't.

TABLE 4

Differences between the Ra and Rb of participants' time

Portions of time spending for R as % of TWWT	(a) cases of p/ants spending as Ra	(b) cases of p/ants preferring to spend for R*	(c) Difference between (a) and (b)
(1) 10-25%	9 or 15%	24 or 40.0%	(+15) or 25.0%
(2) 26-49%	15 or 25%	26 or 43.3%	(+11) or 18.3%
(3) 50-98%	36 or 60%	10 or 16.7%	(-26) or 43.3%
Total	60 or 100.0%	60 or 100.0%	52/60 or 86.6%

% of TWWT: Percentage of Total Weekly Working Time, R*: Hier the Rb time.

Indeed, the data appearing at Table 4 display that the big majority of participants in our study, or 86.7%, would like to differentiate the portion of their Ra time, since only a percentage of 16,7% would prefer to remain in class (3). Actually, the 86,6% of the participants declare that they should

prefer to minimise their "Ra" time. So, the cases of managers that would prefer to spend for 'R' portion of their total weekly time varying from 10% to 25%, increases from 9% to 24%, or from 15% to 40% of the total number of them. On the contrary, from the total of the managers that actually spent for "R" the greatest portion of their total time, floating from 50 to 98%, only a limited number of 10 or a percentage of 16,7 % would like to stay into the same situation. It's obvious that the classes (1) and (2) absorb the big difference existing between (a) and (b) of class (3).

2) Table 5, represents the data concerning the parts of time that participants spent to care about urgencies (Ua), in comparison to those parts that they would prefer to spend for it (Ub). Indeed, data's manipulation have shown that $\mu Ua = 23.22\%$ and $\mu Ub = 17,62\%$, and that there is a difference of 5.6% between them. Indeed, $\mu Ua > \mu Ub$, given that t of the case = $2,414 > 1,98$ ($1,98 = t$ of the tables) or Probability of case = $0,017 < 0.05$. To verify that we did the same two tests as mentioned above: i) The control of variations (apportion F) for equality of variances of the two populations (a) and (b), which showed that these are unequal, because $\text{prob} = 0,017 < 0.05$, ii) The Chi-Square Tests (apportion X^2), to control the independence of the two populations, which had shown that these are independent, because $\text{prob} = 0,587 > 0.05$. So we are at the supposition H_0 . This difference means that participants spent more time to deal with urgency problems in comparison to the amount of time they would prefer to.

TABLE 5

Differences between the Ua and Ub of participants' time

Classes of 'TWWT'	(a) P/pants who spend for 'Ua'	(b) P/pants preferring to spend for 'U**'	(c) Difference between (a) and (b)
(1) 10-25%	41 or 68.3%	49 or 81.7%	(+) 8 or 13.4%
(2) 26-49%	15 or 25.0%	10 or 16.7%	(-) 5 or 8.3%
(3) 50-100%	4 or 6.7%	1 or 1.6%	(-) 3 or 5.1%
Total	60 or 100.0%	60 or 100.0%	16 or 26.8%

TWWT: Percentage of Total Weekly Working Time, U*: Hier the Ub time.

As Table 5 row (1) shows, the cases of participants which actually spent for 'Ua', portion of their TWWT floating from 10% to 25% which are increasing from 41 of the total number, or 68.3% to 49 or 81.7%. This means that managers prefer to diminish the portion of time spending to

face various urgencies. The same direction has the case of row (2) or those cases that actually are spending as 'Ua' amount of TWWT floating from 26% to 49%. Indeed their number is diminishing from 15 or 25.0% to 10 or 16.7%. Also, the cases of class (3), that actually are spending as 'Ua' the most part of their total time floating from 50% to 98%, are also diminishing from 4 or 6.7% to 1 or 1.6 % of the total.

3) Data's manipulation showed that $\mu Pa < \mu Pb$, because $\mu Pa = 27,92\%$ and $\mu Pb = 47,78\%$ which means that there is a difference of 19,87% between them. To verify that we repeated the same two tests as mentioned above: i) The F apportion for equality of variances, which showed that the two populations (a) and (b) are unequal, because prob of case = 0,017 < 0.05% and t of the case = - 6,079 < 1,98 (1,98 = t of the tables). ii) The control of independence (the Chi-Square Tests apportion X2) of the two populations had also showed that these are dependent, because prob = 0,005 < 0,5%. So we are at the supposition Ho, where variations are unequal.

According to all mentioned above, the real secondary time is

$$Sa = Ra + Ua \text{ or } Sa = 48,37\% + 23,22\% = 71,59\% \quad (9)$$

and the secondary time which managers would prefer to have is:

$$Sb = Rb + Ub \text{ or } Sb = 34,93\% + 17,62\% = 52,55\% \quad (10)$$

$$\text{and, } Sb-Sa = 19,04\% \quad (11)$$

So, there is a significant difference between Sb and Sa, or between the amount of time spending from managers to care about secondary important matters in comparison to that they would prefer to spend. This difference is increasing the non managerial managers' time. The fewer is the "Sa" time, the bigger portion of "P" time left at top managers' disposition to use it as managerial time in order to improve matters of first priority and importance. In fact, as they admit, the most part of their time is spending to face every day's problems or urgencies that are for them of secondary importance and constitute mainly their subordinates' duties. This situation has of course serious consequences on their effectiveness. Indeed this difference shows the delegation's weaknesses having as result for the top managers to be occupied with tasks that should be carried out by their

subordinates. Also that is pointed out by several writers as by Freeston and Costa (1998)' Quinn, R. E., Faerman S. R., Thompson M. P., and McGrath M. R. (1990), as well. [6]

The meaning of the whole analysis exposed above and the difference between real and preferred division of manager's time is because this is clearly effecting the managers' results. Indeed, this is obvious if we estimate the differences existing between the amount of 'P' time among the class of managers, who have managed to attempt the higher level of their goals and those, who had realised the lower level.

Indeed, we can see at Table 4 that the number of participants with the lower level of results, column LLR, is diminishing as we are moving successively from the cases that are spending the smaller portion of their time as Pa/I, to those who are spending the most, Pa/III. In other words, just a limited percentage of managers (9.5%) although having a high 'Pa' they did not managed to attempt their goals to a high level. The rest of them are located to the classes of higher levels of results. The same direction follows the case of column MLR, or the case of participants with the middle level of results. Things seem to be totally different in column HLR, where almost the opposite is appearing. Undeniably, the numbers are almost noticing an increasing tendency. That means that the higher the portion of time dedicating for 'P', the greater is the number of participants who succeeded the accomplishment of their goals at a higher level.

4. Methods of Analysis

In total, 96 variables categorised into 261 classes were examined. A quadrangular (261X261) coincidence matrix was created, where every row T, corresponds to a question's category. The same is valid for every column 'j' of the matrix (Papadimitriou, I. 1998; Benzecri, J. P. 1992). At the intersection of the row i with the column j, appears the number that reveals the number of coincidences of the category i with category j. In the next step, the number, that is located at each column of the matrix, is divided by the number that is located at the intersection of this row with the same column. Thus, apportions of all variables in that category are defined and expressed as percentages. The comparison of the columns that belong to the categories of the same variable allowed the deduction of useful conclusions. For further analysis of the results, were used the two following scientific methods.

a) *Correspondence Factor Analysis*: The variables - questions that describe the 60 participants, which are qualitative and quantitative, were categorized at a (60X261) logic YES - NO (0 - 1) matrix. In order to apply the Correspondence Factor Analysis, at the logic data matrix, first we define the variable axes, which are the typical vector that correspond to the typical values of the matrix. The factorial axes are the new composite variables that help to understand the results of the data appearing in the matrix (Tennhaus, M., 1994). We can say that the first factorial axis is the regression line, on which the most significant dispersion of the sample appears.

b) Automatic Classification Hierarchy (A.C.H): This method helped us to classify the 60 participants described by a number of 261 logic parameters and thus they are considered as vectors of the space composed by the 261 dimensions. First, all the distances of the participants are estimated in pairs and the pair with the smallest distance is unified. Then the same procedure is repeated for the 59 remaining participants in the sample, and so on, until we find one that represents the average case of the sample (Papadimitriou, I. 1998)

5. Discussion

The review of existing relevant literature had shown to us that studies about managers' quality of time are lately generally neglected. The previous studies used either 'Work Activities' or the 'Process Characteristics' approach. Some studies exploring various methods or techniques, aiming mainly to estimate and measure the managerial effectiveness independently of the way of the managers' use of time have been reported. So, studies regarding the combination of the two fields, the use of manager's time or its quality on one hand and their goals realization on the other, haven't been reported. Exception represent some works recently published, which have only indirect relation with the managerial time.

Thus, some clear and simple questions have risen to us about: 'How do managers spend their time?' 'How managerial is managers' time?' 'Are managers satisfied by the way they use their time?' 'What is the real relationship between managerial and managers' performance and effectiveness? These are some more or less hidden but valuable questions in almost every work. These questions are demanding to be seriously studied and answered as having direct relation with managerial time. That functioned for us as a powerful motive in order to go closer on these answers. We

also believe that our study could constitute an interesting approach about managers' quality of time.

Having in mind that today's managers might expand their conceptual horizons concerning their work by developing their personal skills, we think that more studies with time as a main subject must be undertaken. The relationship between the time as a main variable and effectiveness should be examined thoroughly and be estimated as accurately as possible. Because, as Santori, R. and Aderson, A. D. (1987) indicate, the more objective a measure is, the more likely managers will respond to it. Besides, studies have a real meaning if they can provoke changes, and as also Easterby Smyth, M., Thorpe, R., and Lowe, R. A. 1991, suggest, 'Managers' behaviour about time must change'.

We believe that our work points out the great interest of increasing the percentage of "managerial time" against "the non managerial" one. In such a way managers could better indicate their priorities corresponding to their degree of importance and focusing upon their main goals achievement. Perceiving 'control over their time' and considering that 'to be structured and purposive' offer 'a meaningful psychological variable' as an additional advantage (Macan, T. H. 1994; Mudrack, E. P. 1999). Such conditions will help managers augment the possibility to accomplish their goals and increase their performance.

As a matter of fact, contrary to the expectations, the perception of control over time was not significantly related to job performance. Our work about managers' time, this significant subject almost neglected for a long period, could provide insight to both academics and practitioners offering some new approaches and conceptions. That on the one hand could stimulate some academics to search deeper in order to investigate and test the reliability of our findings, to go farther on and give answers to the existing similar questions. On the other hand that could help practitioners to understand better the significant impact that has the real managerial time, or the quality and not the quantity of their working time. Dedicating the most part of their time to the activities of first significance that correspond directly to their goals' achievement. Furthermore, these will allow the creation of the proper climate inside the organisations that will leave managers relatively free to concentrate on strategic functions. In such a way, as Oshagbemi, T. (1995, p. 27) argues, 'managers would be more

productive in the use of their time and organisations would tend to be more successful at their goals accomplished.

6. Conclusions

The data's manipulation and explanation of our study have led us to draw the following conclusions

1) Top Managers are actually spending the greater portion of their time to look after everyday's problems. Indeed, only a few of them, less than one out of ten (or a percentage of 7,6%), are spending the half and more of their time for activities of first priority or concerning their main goals. So, more than nine out of ten or the 92,4% of the managers, use for that purpose time varying from 10 to 45%. That fact is leading us to conclude that 'top manager's managerial time is indeed very limited'.

2) There is a significant difference between the real way that top managers use their time and the way that they preferred to. According to our results, this divergence is about 20% of managers' total working time. Indeed, Top Managers, in average would like to be able to dedicate about 20% more time to care about activities of first significance (time 'P') by proportional reduction of the time given for routine's matters (time 'S'). As they are declaring, managers are conscious of the improper effect of this restriction of managerial time for the benefit of the non-managerial one. But 'that's not enough', as pointed out many writers as Tsaklanganos, A. (1971); Douglas M. E. & Douglas D. N. (1993), and Pardini, P. (1999).

3) Our study has also shown a clear relationship between managers use of time and the achievement of the desirable results. In fact, the least amount of top managers time is dedicated to care about their main goals ('P' time), the higher the probability for them to succeed. As much as their role is becoming more demanding, findings such as ours will be more significant. Inefficient use of managers' time and its consequences issuing from the poor allocation of 'P' time, additional to the poor managerial results, will seriously have an effect on their life either professionally or personally. As Freeston and Costa (1998, p. 52) indicate, 'leaders who spend more time on value-added time activities than on waste time are likely to feel a great sense of worth and pride in their work. On the other hand, those who spend more time on waste work than value-added work, tend to be numb to innovation, suspicious of new ideas, dispassionate toward

improvement, and not willing to find challenge in their work'. So, our findings about the significance of the 'P' time could function for managers as a stimulus in order to improve the way of spending their time.

A simple estimation of the division of the top managers time between 'P' and 'S' one, might provide to them a clear view about how they spent their personal working time both in their offices insight the organisation units and at their private life as well. Discovering that 'P' amount of time is less than the 50% of top managers' total working time, they have to search for correcting actions in order to improve their effectiveness. In such a way managers will be better prepared for the tremendous competitive challenges yet to come. For that, 'they have to change behaviour so that they can help their organisations make the transition into a new era, characterised by a technological revolution, an information glut and the globalisation's phenomenon' (O'Neal, M.A. 1985).

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Notes

1. 'Foundation skills comprise the basic skills everyone needs for interacting in an organisation. Five basic skills are the ability to communicate verbally and to narrate, to make numerical calculations, to manage one's time, to understand organisational etiquette, and to make ethical judgements.' O'Neal, M. A. 1985, p. 50.
2. According to a quite intensive literature search made by Oshagbemi, T. (1995, p. 19), covering a period of 13 years between 1981 and 1993, "empirical studies of 'how managers spend their time' are relatively limited in number".
3. This study analyses the impact of 'Catalytic Mechanisms' establishment that helps managers or organisations to 'unblock' some serious goals achievement's obstacles. For example, in order to use time more effectively a 'Catalytic Mechanism' is to make not a 'to do' but a 'stop doing' list (Collins, J. 1999, p. 79).
4. We do not consider the 'non work discussion' or 'humour' as lost time. That's because such behaviour, 'only on the surface seems particularly as non managerial, and these often are useful tools', as also pointed out the recent study conducted by Kotter, J. P. (1999).
5. * AAWWT (a): Actual apportion of participants' total weekly working time. PAWWT: Preferred apportion of participants' total weekly working time.
6. 'delegation provides managers with more time and allows them to focus attention on more rather than less significant issues.' Quinn, R. E., Faerman S. R., Thompson M. P., and McGrath M. R. 1990, p. 45.