

The Correlation between Motivation and Performance for Supervisory Roles

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ABSTRACT

In a knowledge-based organization, the employees, as holders of intangible knowledge, play a particularly important role in these organizations, as they can foster productivity, creativity, and innovation that ultimately leads to high performance. The scope of our study is to see if a higher intrinsic motivation, tracked by using Charles Handy's four "E" factors: effort, energy, excitement, and expenditure, is related to a higher organizational performance for supervisors in the Romanian branch of a multinational company. We have used a quantitative method, by administering a questionnaire, with Likert scale questions, to a sample of 57 supervisors, then correlating their score with the performance score they have obtained from their direct supervisor. The results revealed that there is undeniably a connection between the importance that employees are self-imposing on the "E" factors when they are in pursuit of achieving organizational goals, that is, bringing a higher organizational performance.

KEYWORDS: *motivation, performance, rewards, organization*

JEL CLASSIFICATION: *O15, M12*

1. INTRODUCTION

Over time, the term motivation has been given different interpretations and definitions that have resulted in theories that complement or differentiate according to the needs of the organization. In the majority of the cases, these theories described people's behavior, needs, and expectations.

The current environment is made up of a number of factors that drive organizations to reconsider and restructure their activities in order to best meet existing requirements and pressures. Within these changes, the organizational culture can be a crucial factor in the success of organizations. This study will follow the Motivation Calculus developed by Charles Handy in 1976, with three main points of focus: needs, factors, and results, thus this study will analyze the correlation between "E" factors results and the performance within a multinational IT company located in Romania.

2. LITERATURE REVIEW

The concept of motivation, and the word itself, was firstly used by Arthur Schopenhauer in the 19th century, in his article "Four Principles of Sufficient Reason", more specifically in his fourth form concept that stipulates that motivation is the intern causality of individuals. Later this term became widespread, as it is identifying the causes of human behavior.

Starting from the term mentioned above, it can be stated that if the satisfaction of a need is difficult, when the need is not directly realized, it manifests itself in the mind of the subject in the form of specific content.

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Because individuals are distinctive between groups, “the motivation for self-actualization leads people in different directions” (Kenrick et al., 2010). As Victor H. Vroom aforesaid: “Motivation is a process that controls the choice an individual makes between alternative forms of voluntary activity” (Vroom, 1964). The term “motivation” exceeds the term “reason”; therefore, in modern psychology, the two terms designate at least two mental phenomena:

- a set of reasons that provoke the activity of an individual and determine his activity; a system of factors that determine the behavior (needs, goals, intentions);
- the process of education, the development of motives, and the characteristics of the process that stimulates and maintains the behavioral activity at a certain level.

Motivation can be defined as a set of psychological causes that expound human behavior, it is beginning, direction, and activity. Together with motives, goals, and needs, interests, tasks, desires, and intentions are considered incentives for human behavior as well.

Abraham Maslow published an article in 1943, in which introduced for the first time the hierarchical theory of needs, world known as "Maslow's pyramid", which was revolutionary in the field of the psychology of motivation and the rise of this field after his introduction.

The pyramid is composed of five different layers of needs, from the more basic ones as physiological and safety, which must always be met in order to move on to the next, higher needs as importance, which are the psychological ones, because they caress the individual esteem and relations needs, practically his psychological condition requirements.

Finally, are the self-actualization needs, and are related to the individual becoming who they can really be by reaching his full potential and point experiences, or “as the desire to accomplish everything that one can, to become the most that one can be” (Maslow, 1943).

Objectively, this process is a lonely one for the individual, as “the person is essentially alone and can rely only upon himself” (Maslow, 1962) in bringing to fruition his true potential.

At the same time, any deficiency in fulfilling one of the mentioned needs, will act as a motivation for the individual to achieve them, and once a layer is achieved the individual will progress to the next one.

The motivation for human behavior can be conscious and unconscious. This denotes that some needs and purposes that control human behavior are recognized by him, while others are not. Many psychological problems are solved as soon as we give up the idea that people are always aware of the reasons for their actions, actions, thoughts, and feelings.

In Maslow's hierarchy, from his point of view, the needs are a universal feature of human nature. Modern analysis has taken into account how a particular motivation can be adapted to a problem and can lead to its solution. Important human motivations are consistent with subsequent functional analyzes (e.g., Bugental, 2000). These results lead to the suggestion that there are different motivational systems specific to the field for physiological needs, security needs (self-protection), esteem needs (status), and membership needs (affiliation), the needs being grouped functionally and psychologically.

Maslow declared that safety needs become the next priority as soon as people meet their basic physiological needs. Human factors have unique motivational systems to deal with threats. These methods include rapid learning for stimuli that would likely have threatened our ancestors, as well

as attention systems that are adapted to expressions of anger, especially on the faces of unknown men, which would have posed a particularly serious threat. mare (Ackerman et al., 2006).

As an extension of Abraham Maslow's Hierarchy of Needs, as he states that each individual is a complex system, driven by forces that overwhelm his sets of needs, the calculation of Charles Handy's motivation was first introduced in his revolutionary book from 1976, "Understanding Organizations". The idea behind this book is that each individual has a specific "motivational calculation". With regard to every decision made, it can be conscious or subconscious. The three pillars are represented by:

- Needs - which can be defined based on the ideas of A. Maslow or any other researcher, being represented by the needs of the person at that time. People naturally want to be associated with other people, especially when it comes to successful people. Employees want the opportunity to work with those around them. Most of the time, friendships can be developed in working relationships, and carry a significant role in achieving goals.
- Desired results - the expectations that a person has in carrying out the professional activity. Expecting a reward with real pay will come when a job is completely successful. There are several ways in which the results of a project or task can be rewarded and not all need to be financially related, although this financial side will always be the top priority for most employees, but we can consider other rewards that can be rewarded. be valuable in important, emotional ways. Gratitude to the staff regarding the effort made by an employee, appreciation of the quality of work.
- The 'E' factors – effort, energy, excitement, and expenditure in achieving the expected results. People will naturally be willing to work harder to get what they consider valuable; they will have expectations. If the company offers financial bonuses for a successful project, it is possible that the level of the team will be high and focused on achieving the goal. On the other hand, if the reward is only satisfaction, there is a possibility that the level of concentration and achievement of the goal will be at a low level, compared to the financial reward. This attitude is inevitable, even the most conscientious employees may have different attitudes toward rewards. It would be ideal for each of us to make the necessary effort regardless of the type of expectations or rewards, but at this time and too soon it will not happen.

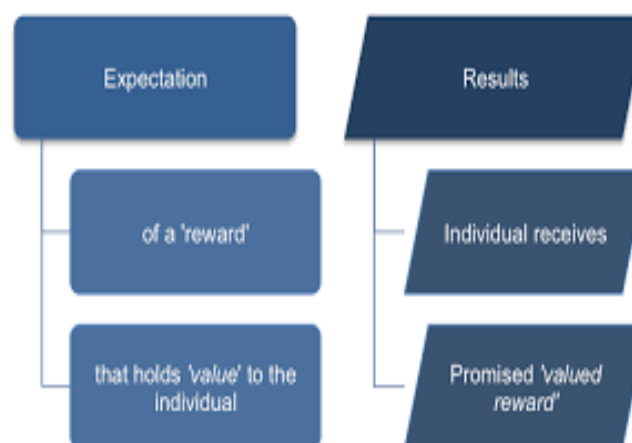


Figure 2. Charles Handy's Motivation Theory
Source: Handy (1999)

The "E" factors of effort, energy, excitement, and expenditure (time, money) are perceived as worthwhile. This is defined as a calculation consisting of:

- Needs are the result of satisfying them.
- The hope is that the effort will yield the desired results.
- The probability that the result will satisfy or reduce the need.

The above is closely connected to the functional theory, a derivative of the studies of Bandura (1986), Ford (1992), Kanfer (1990), Mitchell (1982), and Pinder (1998), that states the motivation at the workplace is a process in which the individual must choose his goal, and the effort he will use to achieve it.

Under the motivation calculus of Charles Handy, each individual has certain needs that have to be accomplished, and the reward must be visible and achievable for him. This will make the individual calculate the effort, energy, excitement, and expenditure that he will invest in order to achieve the organizational goal.

3. CASE STUDY

This study is conducted inside the Romanian branch of a multinational software and information technology company based in the United Kingdom that operates globally and has more than forty years of experience in developing and implementing enterprise software solutions.

One of the largest and most important operational centers is located in Romania. Here it employs more than six hundred people that cover and support global functions of the company from Finance or Human Resources to Software Research and Development.

For reasons of confidentiality, no further details will be exposed or mentioned in the following part of this case study.

The study is being performed using quantitative methods, using as the main tool of research a questionnaire that was addressed to employees with supervisor responsibilities inside the company.

3.1. THE RESEARCH INSTRUMENTS

The central research instrument is a questionnaire that analyzes the opinions of the diverse and representative sample of supervisors in the Romanian branch of the company (n=57), within different departments and with different management positions, age, and experience.

The questionnaire itself was completed in the period of September to October 2021, being sent to 582 employees, through the Google Forms online platform, with an extremely high rate of response of 98%. The performance review score was completed between December 2021 and January 2022 using the company's internal software.

In our sample, 44 respondents (77%) are senior management professionals that normally oversee managers and offer them support in managing departments or teams; 13 respondents (23%) are middle- to low-level management professionals that supervise mid-level or entry-level employees.

Table 1. Respondent's management level

Level	Respondents	Cumulative %
05 Director	1	2%
06 Senior Manager	17	30%
07 Manager	26	45%
09 Expert	2	4%
10 Specialist	6	10%
11 Intermediate	5	9%
TOTAL	57	100%

Source: Authors' own contribution

It can be observed that we have a diverse sample from the table below, as the respondents are part of different functions inside the organization, with Finance and Engineering representing the majority with 72%.

Table 2. Respondent's Functions

Function	Respondents	Cumulative %
Finance	21	37%
Engineering	20	35%
Services	1	2%
Sales Operations	6	11%
Sales	7	12%
Supply Chain & Operations	2	4%
TOTAL	57	100%

Source: Authors' own contribution

The opinions of the respondents are analyzed using the questionnaire following the four "E" factors considered by Charles Handy's Motivation Calculus. This is done in order to comprehend the respondent's own consideration given to the four factors, as a way to achieve the organizational goals.

A simple and straightforward type of wording was used in this questionnaire, as the intention was for every response to lead to results that are valid. To measure the intensity a respondent has given to an opinion question, a five-grade intensity Likert scale was used, which is an ordinary attitude scale.

Table 3. Centralized responses to the questionnaire

Question	1 - Strongly disagree	2- Disagree	3 - Neutral	4 - Agree	5- Strongly agree
1. To achieve the organizational goals more effort is needed from your part	0	4	18	30	5
2. To achieve the organizational goals more energy is needed from your part	0	0	19	33	5
3. To achieve the organizational goals more excitement is needed from your part	0	1	18	34	4

Question	1 - Strongly disagree	2- Disagree	3 - Neutral	4 - Agree	5- Strongly agree
4. To achieve the organizational goals more expenditure is needed from your part	0	14	29	14	0

Source: Authors' own contribution

Calculation method for Question 1: $(1*0+2*4+3*18+4*30+5*5)/57=3.6316$

Calculation method for Question 2: $(1*0+2*0+3*19+4*33+5*5)/57=3.7544$

Calculation method for Question 3: $(1*0+2*1+3*18+4*34+5*4)/57=3.7193$

Calculation method for Question 4: $(1*0+2*14+3*29+4*14+5*0)/57=3.00$

Within the company, after the end of each financial year, the process of performance review for all employees is started. In this process, each supervisor must analyze the performance of his subordinates, based on the company’s performance matrix, and share the analysis with the employee.

Finally, each employee receives a score from 1 (Unacceptable) to 5 (Outstanding). In our sample, the majority of performance results scores are 3 – Meets expectations (68%) and 4 – Exceeds expectations (28%).

Table 4. The Performance Score

Level	Score	Cumulative %
5 – Outstanding	2.00	4%
4 – Exceeds expectations	16.00	28%
3 – Meets expectations	39.00	68%
2 – Needs improvement		0%
1 – Unacceptable		0%
TOTAL	57.00	100%

Source: Authors' own contribution

3.2. QUANTITATIVE RESEARCH

In our study, we have statistically analyzed the data by calculating the correlation of the scores obtained between the “E” factors and the Performance results each respondent obtained after the end of the reference period.

For this reason, we utilized the Pearson’s coefficient (r), which measures the intensity and meaning of the connection between two variables. The Pearson’s coefficient (r) is a broadly used statistics test in the socio-economic sciences and was validated over the years by specialists who have utilized it mostly in opinion polls.

In this way, we can prove the dependence of the Performance results on the “E” factors intensity value that each respondent has given to the four factors when they want to achieve the organizational goals they must attain.

Below you can see Pearson’s coefficient formula, where m_x and m_y are representing the averages, and x and y the variables.

$$r = \frac{\Sigma(x - m_x)(y - m_y)}{\sqrt{\Sigma(x - m_x)^2 \Sigma(y - m_y)^2}}$$

Value of (-1, +1) can be taken by the correlation coefficient, meaning that values between -1 (negative, inverse, and perfect correlation), and +1 (positive, direct, and perfect correlation). While a total absence of a correlation, or a total independence between the variables is represented by a coefficient of 0.

In practice, the Pearson’s coefficient correlation is interpreted as:

- $|r_{xy}| = (0;0.1)$ – a connection that is either non-existent or very weak;
- $|r_{xy}| = (0.1;0.3)$ – a weak connection that requires the application of the Student test to verify the statistical significance;
- $|r_{xy}| = (0.3;0.5)$ – a medium intensity connection;
- $|r_{xy}| = (0.5;0.7)$ – a strong connection;
- $|r_{xy}| = (0.7;0.9)$ – a very strong connection;
- $|r_{xy}| = (0.9;0.1)$ – an almost perfect connection.

At the same time, we must mention that when we use this coefficient, we must consider that both variables are influencing each other and are dependent, therefore they cannot be independent variables.

Practically, we are unable to determine their causality, knowing only that they can vary and the direction in which the variety can be found, and we cannot know which variable is influencing the other one.

For this reason, it is highly recommended that once the correlation testing is finished, to also calculate and interpret the determination coefficient, as this will show the interpretation of the covariance that is higher than in reality, with a higher value of the Pearson’s coefficient will lead to higher values of the determination coefficient.

Table 5. Correlation of “E” Factors and Performance Score

	"E" Factors	Performance
"E" Factors	1	
Performance	0.3920	1

Source: Authors' own contribution

The correlation coefficient obtained shows a medium intensity connection between the “E” Factor and the Performance Score.

Table 6. Determination coefficient

	"E" factors	Performance Score
"E" factors	1.00	
Performance Score	0.1537	1.00

Source: Authors' own contribution

The determination coefficient in our study is 15.37%

4. CONCLUSIONS

In our quantitative research, we clearly see that there is a valid connection between the degree to which each respondent is self-giving to the four “E” factors: effort, energy, excitement, and expenditure in order to achieve the organizational task and goals that they have received, and the performance score review they have obtained in the tracked period of time this study follows.

This can be clearly acknowledged by the Person’s correlation score of $r=0.3920$ that shows a medium intensity connection between the two variables: the “E” factors score and the performance score. The score itself demonstrates that there is undoubtedly a connection between them, but not a strong one, and that the determination coefficient of $r^2=0.1537$ that tracks the statistical significance, and the practical relevance of the results shows that 15.37% of the variance is common between the variables we have tracked.

At the same time, we must take into consideration these study limits, as it is done inside a specific organization, with an overall low number of respondents.

Therefore, we can say that, without a doubt, there is a medium relationship between how each respondent is acknowledging the way he must use effort, energy, excitement, and expenditure towards achieving the organizational goals as part of his own motivation calculation inside the organization that was used.

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