

Subjective workload and the metabolic syndrome: An exploration of the mediating role of burnout and the moderating effect of physical activity

Atad, Ofer I.; Toker, Sharon.

In this study, building on Hobfoll's (1989) conservation of resources theory, we aimed to reveal the effect of subjective workload at baseline on the likelihood of developing new-onset of metabolic syndrome (MetS), a cluster of cardiovascular risk factors during follow-up. We also aimed to find out whether an increase in job burnout mediates this association, and whether the extent of engagement in leisure-time physical activity (PA) attenuates the effect of workload on MetS. Using a three-wave longitudinal study design, we followed a sample of 1,966 Israeli employees free of MetS at baseline for 3.5 years on average. We controlled for multiple confounders, including objective workload (i.e., work hours). Subjective workload at baseline was associated with the risk of new-onset of MetS, yet this association was moderated by PA. Specifically, among participants with low PA (37 weekly minutes), a one-point increase in our five-point measure of subjective workload was associated with a 41% increase in risk of new-onset MetS, whereas among those with high PA (258 weekly minutes) it was associated with a 38% reduction in risk. Among participants who engaged in 148 weekly minutes of PA (as recommended by the U.S. Department of Health and Human Services), an increase in workload did not result in an increased risk of developing MetS. We did not find, however, any indication for a mediating effect of job burnout. Our findings suggest that engaging in PA while being overloaded not only protects employees from adverse outcomes but actually reverses the cardiovascular risk.

Keywords: Metabolic Syndrome, Burnout, Subjective Workload, Conservation of Resources Theory

INTRODUCTION

Unquestionably the human factor is the most important asset of an organization. In a global context, lately challenged by perpetual crisis scenarios, companies have struggled to remain in business and continue to develop under uncertainty conditions. Given these circumstances it is needless to say that the management of companies should not lose focus on the human resource, although there are business concerns and factors external to the organization that require to be prioritized.

In this regard, without any doubt managers should continue to develop strategies and plans that take into consideration the motivation and development of the employees, to recruit, retain, motivate, and create a secure and pleasant work environment and also to increase their performance.

In this context, our attention was drawn by the importance companies should give to employees' motivation even under these crisis circumstances and which should be the direction to further develop the reward practices. Hence we conducted a pilot study on human resource management in Romania that revealed the main characteristics of rewards management in Romanian organizations. The pilot study was carried out on a sample of 150 organizations in different fields of activity, from the public and private sectors. Among the assumptions underlying this study is that, in general, companies in Romania attach great importance to motivating employees, the rewards being granted according to the work performance.

The sample of organizations include: service companies - 69.62%, companies in the field of industry - 20.25%, construction companies - 6.33%, and agriculture companies - 3.80%. The structure of the sample respects the contribution of each of the four major branches of the national economy to the achievement of the gross domestic product.

According to the property ownership criterion, 33.96% of the companies that participated in the survey are owned by private investors with a majority foreign private capital, 18.99% of the organizations belong to the public sector, and 47.05% are companies with a majority foreign private capital. 39.24% of the companies participating in the survey have domestic majority ownership, while 60.76% are companies with a foreign majority capital. Regarding the size of the organizations, 24.05% of the companies were SMEs, 21.52% were public institutions, 16.46% represented large companies and 37.97% were multinational organizations.

LITERATURE REVIEW

Reward management is one of the human resources strategies organizations use to improve their performance. On the one hand, when they feel they are treated adequately by the company, employees tend to put their maximum efforts and interest in the activities they perform, on the other hand when there is a disproportion between their input and the rewards they receive, undoubtedly employees' job satisfaction is affected, followed by a downturn of their productivity this furthermore influencing important strategic goals for the company such as customer satisfaction and profitability, not to mention the quality of the work environment (Agbaeze et al., 2017). Reward management has the purpose of identifying, formulating, and implementing different strategies

and policies in order for people (employees) to be rewarded according to their value to the organization that they are part of. But reward management does not involve only financial rewards; it is also about recognition, new opportunities for learning and development, increased job responsibilities that are non-financial rewards, more people-oriented (Armstrong, 2010).

To better understand the reward management strategy, it is mandatory to understand the motivation and job satisfaction theories that helped build the reward systems. Herzberg's dual factor theory (Herzberg, Mausner, & Snyderman, 1959, 1966) supports the existence of two different sets of circumstances that determine job satisfaction and motivation. The method of identifying the factors underlying this theory was applied by asking two questions aimed at identifying the period in which employees felt the best in the office and the period in which they felt the worst. Therefore, on one hand, hygiene factors were identified, which refer to company policies, direct superiors, salary, interpersonal relations and working conditions, and on the other hand, motivational factors identified by achievement, recognition, nature of work, responsibility, and advancement. Regarding hygiene factors, the author demonstrated that their presence creates discomfort, while their absence does not implicitly lead to employee satisfaction. Motivation is seen as an internal force that drives employees towards the organization's goals (Dugguh, 2014). Without motivators, employees will perform job duties as required, but with motivators, employees go above and beyond the minimum requirements and even increase their effort at work (Bakker and Demerouti, 2014). This theory advocates placing employees in positions where they leverage their talent and are not pushed toward failure (Dugguh, 2014).

In their research published in 2011, Dartey-Baah and Amoako present what Herzberg (1987) recommended for managers who want to combine the two elements in the right way and eliminate employee dissatisfaction. The recommendations made following the study were:

- improve poor and restrictive company procedures;
- ensuring efficient, non-intrusive and supportive managerial supervision;
- creating and supporting a culture of respect for all team members and encouraging dignified behaviours;
- ensuring competitive salaries;
- safety at work;
- designing attractive jobs by offering meaningful tasks for all positions. Another study carried out in 2018 by Chaubey et al., on a sample of service organizations revealed that job security and compensation management

practices highly influence employee motivation having positive effects on it.

While extrinsic motivations are those related to work conditions, benefits, security, promotion, environment and work conditions, intrinsic motivation are those rewards considered psychological motivations and examples are opportunity to use employee's abilities, new challenges, appreciation and recognition (Akanbi, 2011). The same authors (Chaubey et al., 2018) underline the fact that managers can act on influencing the employees with a combination of rewards, to give them a reason to increase their performance but it's the employees who choose to act upon the motivating factors, therefore the desired results can be achieved only in a partnership managers-employee.

A relevant observation in this regard was made by Galetić (2020), in a study comparing different reward strategies used by Croatian, European and non-European companies, pointing out that the most universally provided employees benefits are paid commuting expenses, expenses for social activities, education and training, discounts on company products and the like, some of them being mostly related to employee status such as company car, paid seminars and conferences, flexible working hours. These are approaches focused on extrinsic motivating factors, whereas intrinsic motivation is used rather infrequently.

However, as Bussin and Van Rooy (2014) stress out, depending on the generation they are part of, certain types of rewards companies used to offer to their employees should be adapted to their particular needs, otherwise a major problem may arise if a unitary structure is to be adopted in terms of the reward policies. Studies reveal that rewards are positively associated with job satisfaction, but the financial rewards have a stronger impact on it than non – financial rewards (Bustamam, Teng & Abdullah, 2014). Thus, the reward policies and practices should take into consideration a proper mix, according to the workforce wishes. Brown (2014) also argues that companies should forget the outdated concept of “total rewards” and tailor “smart rewards” that have real effects on employee engagement and motivation. Moreover, organizations should evaluate the effectiveness of their reward policies and practices and see how they influence the performance of employees and the achievement of business results. Studies suggest that many organizations fail in doing that due to lack of resources or time, lack of data and even because of a managerial indifference (Armstrong, Brown and Reilly, 2011).

MOTIVATING FACTORS

In Romanian society, the position is sometimes more important than its content, which means that extrinsic motivations (salary, job security, and working

conditions) are much more important compared to the possibilities of promotion and the extrinsic content of the position. This tendency is also evidenced by the results of the study on human resources management carried out at the level of Romanian companies (Table 1), the salary as a motivating factor obtaining the highest average score (1,90). For Romanian employees job security (2,30) seems to be more important than working conditions (2,44) and the team to which they belong to (2,46). Career opportunities (2.74) and the workplace duties and responsibilities (2.88) are extrinsic motivational factors, whose importance is at the average level (Table 1).

Table 1. The main motivating factors in Romanian companies, on types of companies

Motivating factors	SME	PI	BC	MN	Average score
Job security	2,06	1,82	2,82	2,52	2,30
Salary	1,95	2,35	2,23	1,45	1,90
Working conditions	2,28	2,94	2,75	1,89	2,44
The team they belong to	2,74	2,87	2,67	2,22	2,46
Organizational culture of the company	3,22	3,08	3,20	2,75	3,00
Job responsibilities	2,61	3,79	3,10	2,52	2,88
Promotion opportunities	2,68	3,38	2,92	2,41	2,74
Social-economic facilities	3,11	4,36	3,18	2,27	3,06

Source: Authors' contribution

Mark: 1 – the most important, 5 – the least important; Mark. 2: SME – Small & Medium size Enterprises; PI – Public Institutions; MN – Multinationals, BC - Large Companies

Public institutions employees declare that job security (1,82) is more important than wages. Many of them are willing to work on a lower salary but have a certain level of job security and stability. In contrast to them, for multinational companies employees, the most important motivation factors are: the salary (1.45), the working conditions (1.89) and the team they belong to (2.22), together with career opportunities (2.22) (Table 7). In general, multinational companies are highly attractive to Romanian employees, in particular due to the higher rewards offered, the superior working conditions compared to the working conditions of the other types of organization, the promotion of participatory management and capitalizing on career opportunities. Even if the employee is not offered the opportunity to promote within a multinational company, the mere fact that he has worked within the company is a valuable experience he appreciates very well in other organizations, where the employee can achieve his / her career goals. Generally speaking, when asked about the work environment, Romanian workers appreciate a modern, clean, and ventilated place. The headquarters of the company itself is not considered a

motivating factor. Numerous companies in Romania offer their employees a canteen, modern furniture, recreational facilities, etc. Unlike other countries, the organizational culture of the company (3.00) is a factor of low importance in the process of choosing a job.

When evaluating a job, 92% of the respondents mention that it is important to have a good salary, 89% declare that it should be a safe job, and 77% that the job must be appropriate for their personal competencies (Figure 1). Options are maintained even when subjects are asked to choose the most important feature, 37% saying that the most important is the salary, followed by job security, chosen by 24% of the respondents.

The results of our research show that the most important criteria according to which Romanians choose their job are: provides a good salary (51%) so that they do not care about money; job security (33%), with a low risk of dismissal; allows the use of professional competence (15%); facilitates good results (10%).

The survey also reveals that work productivity influence the employees' rewards. Results obtained from processing the responses (using the 7-step scale) to the question: Do the rewards awarded within your company relate to labor productivity? showed an average score of 5.44. This means that the rewards paid to employees are in most of the cases correlated with their work results.

The relationship between the value of the granted rewards and the productivity at work is respected, especially at the level of multinational companies (5.93) and SMEs (5.74), while at the level of public institutions, the link between the rewards and the labor outcomes is not the main criterion for granting them (4,60).

32.09% of the organizations participant to the human resource management study declare that their wage system is influenced by the overall performance of the company (Table 2). Besides that, other important determinants of the wage system are the time worked by an individual (26,12%) and the competence of the employees (26,87%). Only 14,93% of the respondents consider that their wage system is determined by the individual objectives of employees. The management by objectives can be sometimes hard to implement due to the resistance and old mentality of workers.

Table 2. Determinants of the wage system in Romanian organizations, by type of company (%)

Determinants of the wage system	SME	PI	BC	MN	Average score
Time worked	30,00	50,00	28,57	12,28	26,12
Competence	20,00	30,77	28,57	28,07	26,87
Individual objectives	10,00	3,85	14,29	22,81	14,93
Performance (accomplished production,	40,00	15,38	28,57	36,84	32,09

sales volume, etc.).					
----------------------	--	--	--	--	--

Source: Authors' contribution

Mark 1: SME – Small & Medium Enterprises; PI – Public Institutions, MN – Multinationals, BC - Large Companies.

Public institutions distinguish from all the other types of organizations studied due to their preponderant use of the payroll system according to the time worked, with 50% of them employing this system of rewarding employees (Table 2).

Although performance is the main determinant of the payroll system at the level of Romanian companies, it has different meanings in different companies. For example, in sales, performance is understood and evaluated through individual sales force targets, or the so-called "targets." Thus, the variable compensation is predominant in relation to the fixed component of the salary structure.

Except for multinational companies, at the level of other types of organizations, time worked remains one of the determinants of the payroll system.

This means that Romanian workers prefer fixed wages compared to variable rewards. The reduced importance of commissions as variable wages and the preference for a fixed salary are due to the high degree of uncertainty avoidance specific to the Romanian society and the high degree of uncertainty that characterizes Romanian employees.

Compared to other types of organizations, in public institutions, the length of service is still relatively appreciated and compensated. Due to collectivist values and a high-power distance, pay systems are subject to equal opportunities pressure, not only at the level of public institutions but also at the level of other types of companies.

Wage confidentiality is becoming an increasingly important issue, not only for employers, but also for the employees. Many employees know the salaries of their colleagues and discuss with them on this matter. However, there are several situations in which employees express their dissatisfaction regarding their colleagues' higher salaries while the employers' reaction is rather poor; the main criticism addressed by the employees to the principle of wage confidentiality is the lack of transparency of employers.

Equal opportunities policy is also respected in terms of the ratio between men and women salaries. Therefore, in most of the companies participant in the study, women receive roughly the same salary as men, for similar work and positions. The answers to the question: In your company, for the same amount of work, the wages of women and men are equal? reveal an average score of 6.52 on a 7-point Likert scale.

The main problems faced by the Romanian organizations in the field of human resources are: workforce turnover/fluctuation (2,78), employee

dissatisfaction due to routine work (3,15), poor communication within the company (3,23), and demotivation of employees (3,33) (Table 3).

Table 3. The main dysfunctions faced by company in Romania, by type of companies

Dysfunctions in human resources field	SME	PI	BC	MN	Average score
Employee absenteeism	4,17	4,38	4,27	4,27	4,27
Personnel fluctuation	2,47	2,91	2,45	2,78	2,78
Bad communication inside the company	3,61	3,32	3,27	3,23	3,23
Indiscipline in work	4,26	4,07	4,07	4,03	4,03
Lack of concern for employees over job duties	3,94	3,93	3,82	3,86	3,86
Lack of concern for managers over employees	3,89	3,55	3,69	3,60	3,60
Lack of job postings	3,74	3,93	3,71	3,85	3,85
The system of personal relationships	3,28	3,53	3,39	3,61	3,61
Demotivating employees	3,56	3,19	3,38	3,33	3,33
The monotony of work	3,41	3,20	3,50	3,15	3,15
Poor performance of employees	4,12	4,15	4,00	4,08	4,08

Source: Authors' contribution

Mark: 1 – the most important, 5 – the least important

Mark 2: SME – Small & Medium Enterprises; PI – Public Institutions, MN – Multinationals, BC - Large Companies

The main problems faced by the Romanian organizations in the field of human resources are: workforce turnover/fluctuation (2,78), employee dissatisfaction due to routine work (3,15), poor communication within the company (3,23), and demotivation of employees (3,33) (Table 3).

Among the causes that determine the high turnover of the personnel in

Romanian organizations can be mentioned: the lack of opportunities for career development, the demotivation of employees due to the routine nature of the work, the relatively low salary levels in some companies, the lack of clear individual objectives and the danger of nepotism in some organizations. The high fluctuation of staff is an expression of the short-term orientation specific to Romanian culture. The main effects of the employee migration phenomenon are the lack of qualified human resources, the selection and recruitment additional costs, and the productivity losses due to a high turnover rate. The

high degree of uncertainty avoidance that characterizes the Romanian society in general has direct effects at the level of employees, causing an increased state of anxiety, leading to communication problems and job withdrawal.

The employees from Romanian organizations are disciplined at work (4,03), which might be an explanation why the absenteeism rate at work is low, essentially absenteeism being considered a malfunction whose importance is at a low (4,27) (Table 3).

CONCLUSIONS

The reward system of an organization influences a lot of the final business results of the company. In the category of essential aspects that need to be retained in the form of conclusions regarding the particularities of the rewarding management at the level of the companies in Romania, the following can be mentioned:

- The extrinsic environment of the job, namely salary and job security, are the main motivation factors for Romanian employees;
- In most Romanian companies, the rewards granted influence the productivity of employees;
- Currently, at the level of the Romanian organizations, there is a tendency to award rewards according to the employees' performance, but still the time worked remains one of the main determinants of the rewards system in a large number of companies;
- The management by objectives system is still hard to implement in many Romanian organizations, thus negatively influencing the implementation of a reward system based on individual and group results;
- Romanian employees prefer a fix salary in the detriment of commissions or bonuses;
- The predominant national and organizational culture exerts significant pressure on salary balancing;
- Men and women have equal opportunities in the compensation policies of companies.

This pilot study reveals only some tendencies in the reward policies and practices from Romanian organizations. Further research should be considered in order to have a more objective overview regarding the compensations and benefit strategies of Romanian employers. The limitations of this research are also related to the small number of the organizations involved.

REFERENCES

- Emmanuel, K.A., Agu, O.A., Onuoha, C.E. and Etim, I.O., 2019. Effect of reward management on employee performance of selected oils and gas industries: Evidence from south-south Nigeria. *International Journal of Management, IT and Engineering*, 7(5), pp. 18-33.
- Akanbi, P.A., 2011. Influence of extrinsic and intrinsic motivation on employees' performance. Retrieved October, 7, p. 2011.
- Armstrong, M., 2010. *Armstrong's handbook of reward management practice: Improving performance through reward*. Kogan Page Publishers.
- Armstrong, M., Brown, D. and Reilly, P., 2011. *Increasing the effectiveness of reward management: an evidence-based approach*. Employee Relations.
- Bakker, A.B. and Demerouti, E., 2014. Job demands–resources theory. *Wellbeing: A complete reference guide*, pp. 1-28.
- Brown, D., 2014. The future of reward management: From total reward strategies to smart rewards. *Compensation & Benefits Review*, 46(3), pp. 147-151.
- Bustamam, F.L., Teng, S.S. and Abdullah, F.Z., 2014. Reward management and job satisfaction among frontline employees in hotel industry in Malaysia. *Procedia-Social and Behavioral Sciences*, 144, pp. 392-402.
- Bussin, M. and Van Rooy, D.J., 2014. Total rewards strategy for a multi-generational workforce in a financial institution. *SA Journal of Human Resource Management*, 12(1), p. 11.
- Chandra, A., Tripathi, D. and Chaubey, D.S., 2018. Reward Management Practices and its Impact on Employees' Motivation: An Evidence from Some Service Organizations in Lucknow. *International Journal of Research in Computer Application & Management*, 8(3), pp. 1-6.
- Dartey-Baah, K. and Amoako, G.K., 2011. Application of Frederick Herzberg's Two-Factor theory in assessing and understanding employee motivation at work: a Ghanaian Perspective. *European Journal of Business and Management*, 3(9), pp. 1-8.
- Dugguh, S.I. and Dennis, A., 2014. Job satisfaction theories: Traceability to employee performance in organizations. *IOSR journal of business and management*, 16(5), pp. 11-18.
- Galetić, L., 2020. Reward strategy and practice as a tool to retain employees: case of Croatia. *Strategic Management*, 25(3), pp. 3-13.
- Herzberg, F., Mausner, B. and Snyderman, B.B., 1959. *The motivation to work*. John Wiley & Sons Inc. New York, 195.
- Herzberg, F., 1966. *Work and the nature of man*, World Pub. Co, Cleveland. Examining Herzberg's.
- Herzberg, Fa, 1987. One more time: How do you motivate employees. *Harvard Business Review*, 65(5), pp. 109-120.