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Transformational Leadership Contributions for Employee Autonomy

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ABSTRACT

The performance of a company is affected by several variables, and understanding them and knowing how they work is decisive for management. Therefore, this research aims to address and measure how transformational leadership impacts employee work. To test the conceptual model, the authors used survey data from 174 active workers. Data were analyzed using PLS-SEM. The results reveal that leaders who adopt a transformational approach allow workers to be more autonomous in their work, the autonomy leveraging the existence of efficiency in tasks and processes. Efficiency is also reached through cost savings, which translates into a reduction of unproductive work time. Furthermore, results indicate the mediating effect of efficiency and employee autonomy on the relationship between transformational leadership and cost savings and between transformational leadership and unproductive work time.

KEYWORDS

Cost Savings, Employee Autonomy, PLS, Productivity, Transformational Leadership, Unproductive Work Time

1. INTRODUCTION

Transformational Leadership is the center of multiple investigations, for its relevance in companies and all types of associations, for attempting to match the needs of followers to the goals and objectives of the leaders (Bass et al., 1987). Research tell us that transformational leadership allows companies to create employees more motivated, more aligned with the company, in line with the strategies that benefits the company and impacts the employee's ability of being autonomous, in their work (Galli, 2019; Anjum, Ming & Puig, 2019).

The professional implications of using a Transformational Leadership approaches could result in more capable and autonomous employees resulting in greater results. The social implications also reflect a higher importance, regarding the ongoing developing capabilities of the employees who want to gain more responsibilities and achieve superior positions within the company.

According to Hardré and Reeve (2009:167), "little attention to date has been given to actual interventions to promote autonomy-supportive style of managers, using the framework of self-determination theory", which indicates that leaders aren't aware of the advantages that having a

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transformational approach can have on the outcome of their employees. Losing opportunities to increase efficiency, cost savings and reducing unproductive work time, a cause for distraction ate the workplace.

The goal of this study is to understand how Transformational leadership reveals the importance of having a autonomy supportive style of management and assuming the autonomy of workers, the objective is to understand how that relates to the increase of efficiency in the processes of the company, which means cost savings, reducing unproductive work time and, overall, an increased productivity.

The research conducted in this study shows that is important for leaders to understand the advantages of having a transformational approach, since it has a direct positive effect in employee autonomy and in the increase of efficiency. The research also indicates the importance of indirect effects and the mediator effect of efficiency and employee autonomy, revealing that cost savings and unproductive work time can be achieved by assuring the increasing of efficiency and employee autonomy in processes and instill it in employees.

The main purpose of this investigation is to identify the impact of Transformational Leadership in the four dependent variables. To complete this article, the following objectives must be met: (i) Understand how Transformational Leadership impacts Employee Autonomy; (ii) Understand how Transformational Leadership impacts Efficiency; (iii) Understand how Transformational Leadership impacts Cost Savings; (iv) Understand how Transformational Leadership impacts Unproductive Work Time.

The article is structured as follows. The next section presents the main concepts and section 3 formulates the research hypothesis. Section 4 details the methodological approach and data collection procedures. Section 5 presents the study results, which are discussed in section 6. Finally section 7 details the conclusions, managerial implication, limitations and future research.

2. LITERATURE REVIEW

2.1. Key Concepts

2.1.1. Transformational Leadership

Leadership is viewed as a critical element in the success or failure of organizations, and substantial progress has been made to theorize the different perspectives. Transformational leaders are those who encourage and inspire followers to produce outstanding results and to improve their own leadership skills in the process. Transformational leadership empowers the followers, the leaders and the organizations by helping them grow and develop whilst aligning the objectives from both sides (Basharat, 2020; Bass et al., 1987).

Transformational leaders have the unique ability to change beliefs, needs and values by creating a mutual stimulation that can convert followers into leaders. Transforming leaders function based on a strong value system, which is referred as *end values. End values* indicate those values (i.e. integrity, honor, justice) that can't be negotiated or exchanged, ultimately letting transformational leaders change followers' goals and beliefs, achieving higher levels of performance and pursuing goals that usually they wouldn't pursue. Some authors believe that charismatic leaders are an essential part of transformational leaders, as they are capable of "having a profound and extraordinary effect on followers" (Kuhnert & Lewis, 1987).

Additional studies about this leadership perspective added four, essential, elements to better understand the characteristics of Transformational Leadership. Idealized influence is what resembles with a charismatic role model. Involving behaviors such as sacrificing for the benefit of the group and setting an example which proves high ethical standards. Inspirational motivation is the capability of inspiring followers by using clear and engaging communication to present a vision of the future that indicates optimism and enthusiasm. Intellectual stimulation is about inspiring followers to foster innovation and change the status quo, which results in a different view of the problems and a new

awareness of the environment. Individual consideration is the supporting of the individual needs of followers, by encouragement and coaching focusing more on their development (Kark et al., 2003).

Transformational leaders are open-minded, dynamic and concerned with planning for the future and behave based on that (Dias et al., 2020; Jaskyte, 2004). The employee commitment to the company is altered by transforming their mission and vision and it is expected (Baporikar, 2017), from employees, that experience TFL, "to think beyond themselves and to become high performers and leaders themselves" (Jaskyte, 2004:155).

TFL can be defined by practices such as "challenge familiar organizational processes, inspire a shared vision among employees, enable employees to act in accordance with their vision, model the way for employees to perform, and encourage employees through recognition and celebration of success" (Jaskyte, 2004:156).

Table 1. Transformational leadership definitions

Authors	Definition
Bass, Waldman & Avolio (1987:74)	In accordance with the leadership's own priorities and goals, the transformational leader aims to lift the needs of the follower. Followers cultivate their own skills to overcome potential challenges that the leader could not have expected, as a result of being mentally stimulated by their leader. Followers learn on their own to fix and solve issues.
Jaskyte (2004:155)	Future-oriented, open-minded, dynamic and worried about planning are transformational leaders. By redefining corporate mission and vision, they renew employee dedication to the enterprise.
Judge & Bono (2000:751)	Transformational figures, who gain support by encouraging followers to associate with a mission that goes beyond their own immediate self-interests
Kark, Shamir & Chen (2003:247)	transformational leadership habits include four components: inspiring motivation, idealized control, individualized attention, and analytical stimulation
Kuhnert & Lewis (1987:648)	Transformational leadership is focused on more than followers 'compliance; it includes changes in followers' attitudes, needs, and ideals. (...) Transformational leaders try to excel in raising a greater understanding of the problems of consequence within peers, subordinates, backers, consumers, or constituencies.

2.1.2. Employee Autonomy

Employee autonomy derivate from employee motivation, that's why its complex and challenging and gains from both definitions, increasing productivity and a positive workplace climate. The managers leadership facilitates motivation and supports autonomous performance which is in line with substantial empirical studies that has been validating the beneficial effects of autonomy-supportive management style and the employee's motivation regarding their job and work performance (Hardré & Reeve, 2009).

Leaders are often hesitant on how they motivate employees in order to promote high quality work and for that exist managerial strategies, also to control the limits of what can motivate and what can undermine those objectives (Pereira et al., 2021). Becoming less controlling and more autonomy supportive are the two key elements that shape this mindset, while less controlling means learning to avoid pressuring language and more autonomy means learning to take the other perspective, become mindful of their motivational sources and nurturing inner motivational resources, while providing explanatory and rational information (Hardré & Reeve, 2009). Autonomy can be conceptualized in terms of the degree to which an individual is able to determine his own work processes, to pace himself, to have control over work agendas and to have some say over goal setting. Further theories view autonomy as the awareness of self-determination with regards to work processes, goals and priorities (Breaugh, 1985).

Proactive employees adopt and internalize organizational values and goals, holding it with strong an emotional connotation which reflects the conceptualization of exemplary employees. Companies consider job competency, interpersonal effectiveness and organizational orientation important characteristics, knowing that attentive employees often bring the vision with them, matching personal values to organizational values (Meduri & Rao, 2020). This current employment need presents a paradox, as job descriptions are impossible to anticipate all the possible work scenarios that an employment will encounter, managers need workers who, when confronted with out-of-the-ordinary environments, can use their own judgment. Companies need employees who show initiative and judgment, expecting them to think and act like their bosses (Campbell, 2000).

Table 2. Autonomy definitions

Authors	Definition
(Campbell, 2000:54)	Proactive workers embrace and internalize corporate principles and objectives and retain clear emotional overtones of these values and goals. Kelley's conceptualization of outstanding workers often represents the idea that proactive employees have a value-imbued view of the company, with the qualification that focused people also carry the view with them, balancing personal values to corporate values.
(Breaugh, 1985:552)	Autonomy has been correlated with such significant variables as employee efficiency, job satisfaction, workplace attendance, absenteeism, and supervisory satisfaction.
(Hardré & Reeve, 2009:167)	It is complex and challenging to diagnose and support the motivation of employees, but it is well worth the effort in terms of potential gains in both productivity and the workplace environment.

2.1.3. Efficiency

In the most general definition, efficiency is the relationship between benefits and costs. When talking about efficiency inside a company the central competitive dimension of what companies know how to do is to efficiently generate and transfer knowledge in an organizational context (Fliaster & Schloderer, 2010, Pinheiro et al., 2020). This transfer, although its essential, it occurs with costs, opportunity costs of efforts and the time spent by the knowledge provider to find out what knowledge is useful to the receiver, sometimes needing to adapt and/or translate in order to be received in a successful way (Fliaster & Schloderer, 2010). In a cross-functional and interdisciplinary work environment the displaying of revolutionary innovations is imminent (Lichtenthaler, 2020), although its vital to overcome interpretive barriers, by transmitting know how through "coding schemes" and "conceptual frameworks" (Fliaster & Schloderer, 2010).

Organizational efficiency is how well a firm maximizes output from the resources it uses. Core employees have a positive effect in organizational efficiency, by developing their capabilities and improving the internal processes, making them rare and inimitable, outperforming competitors. Those core employees are expected to over achieve and become more efficient as they develop their know how, being an advantage for the company since personal skills and personal capabilities are difficult to duplicate, meaning a competitive advantage over others (Lopez-Cabrales et al., 2006).

Efficiency in scientific management is reducing wastage of labour and materials, increasing the overall output. Efficient organization must be established before individual processes can be made efficient which can be achieved by the following 12 principles (Witzel, 2002): (i) Ideals - the organization must know what its objectives are, what it stands for and its relationship with society, clearly defined ideals; (ii) Common sense – the organization must be practical and flexible in its methods and position; (iii) Competent counsel – If the organization lacks the necessary staff expertise, it should seek wise advice and turn to external experts; (iv) Discipline – not so much top-down

discipline as internal discipline and self-discipline, with workers conforming willingly and readily to the systems in place; (v) The fair deal – workers should be treated fairly at all times to encourage their participation in the efficiency movement; (vi) Reliable, immediate and appropriate documents are necessary to monitor over time and assess if productivity has been accomplished; (vii) Despatching – workflow must be scheduled in such a way that processes move smoothly; (viii) Standards and schedules – the establishment of these is central to the achievement of efficiency; (ix) Standardized conditions – workplace conditions should be standardized according to natural scientific principles and should evolve as new knowledge becomes available; (x) Standardized operations – operations should follow scientific principles, particularly in terms of planning and work methods; (xi) Written instructions – all standards should be recorded in the form of written instructions to workers, which detail not only the standards themselves but the methods of compliance; (xii) Efficiency reward – employee engagement is defined as the level of dedication and participation that an employee has with respect to their organization and its values.

Employee engagement is described as the level of commitment and involvement an employee has regarding their organization and its values. The engagement brings out the sense of responsibility towards the business goals, creating a positive attitude in the workplace and a positive emotional connection that makes the employees go beyond their goals to perform their role in excellence (Jagannathan, 2014).

Engaged employees can be defined by the following six management traits (Jagannathan, 2014):

. Job content: autonomy, challenging opportunities for learning;
. Compensation/Monetary Benefits: attractive salary matching the qualifications and responsibilities, adequate compensation for the work and intra-organization parity;
. Work-Life Balance: Recognizing personal needs, being able to spend time with family members;
. Top-Management Employee Relations: Accessibility, values and ethical conduct of top management, equal treatment, respect for the views of subordinates, providing an environment for working together;
. Scope for Advancement and Career Growth: well-designed policy, adequate opportunities for career growth and advancement, clearly laid down career growth paths, implementation of the promotion policy in a fair and transparent manner, help the employees in achieving growth;
. Team Orientation/Team Work: importance, cooperation in inter and intra-department teams.

2.4. Cost Savings

Steven Bragg, in his book, described several tools, based on various types of financial and operational analysis, for achieving cost reduction (or cost savings) within a company (Bragg, 2010).

Table 3. Efficiency definitions

Authors	Definition
(Fliaster & Schloderer, 2010:1521)	The core strategic component to what businesses know how to do is to effectively produce and transfer information in an corporate sense.
(Lopez-Cabrales et al., 2006:87)	A positive correlation between capability growth and productivity is fair to expect, because businesses with well-established internal processes that are precious, rare, and inimitable will outperform the rest.
(Witzel, 2002)	Many of our modern theories on productivity are based around the principle of " method efficiency ", the notion that by making each particular process effective we can then end up with an efficient organization overall.

The 5S Analysis – This methodical process works as a way to organize, order, clean, standardize and continuously improve a work area. 5S is one of the efficiently working tools of Lean Manufacturing (Costa et al., 2020). The program gets its name from five Japanese words: Seiri, Seiton, Seiso, Seiketsu and Shitsuke, which when translated mean Sort, Set in Order, Shining, Standardize and Sustain, respectively. This philosophy is creating and sustaining a well-organized workplace that is more efficient and productive in operation (Jaca et al., 2014):

. Sort – review all of the items within a work are, retain those needed for daily operations, and dispose of all other items.
. Straighten – reposition furniture and equipment to best serve the process flow and move all other items out of the way.
. Scrub – clean the area completely.
. Systematize – establish schedules for repetitively cleaning the area.
. Standardize – incorporate the 5S system into standard company operations, so that it is performed on an ongoing basis. This should include a formal system for monitoring the results of the program.

Benchmarking – This method is a measurement process that results in comparative performance measure. It describes how extraordinary performance is accomplished by identifying the measures of performance indicators, which are called benchmarks and the activities that facilitate the exceptional performance, called enablers. Enablers explain the reasons for the superior performance; thus benchmarking studies are conducted with the support of the two components. Which means that benchmarks can be achieved by reaching the enablers.

Benchmarking is about connecting processes, practices or procedures. Processes may be compared inside an organization against internal processes or against competitors. The types of benchmarking reflect what is compared, involving comparisons of performance, process and strategic benchmarking; and what the comparison is being made against, involving internal, competitive, functional and generic comparisons (Ajelabi & Tang, 2010)

Breakeven analysis – This method consists in the idea that a product line may generate such minimal throughput (revenue minus total variable expenses) that it cannot pay for the cost of the overhead that is directly linked to it, unless it produces at near-maximum capacity levels. Run a simple breakeven analysis on company operations to see where this problem arises and target cost reductions in those areas where product lines are clearly at risk of not exceeding their breakeven levels (Bragg, 2010).

Check sheets – This technique is a controlled form used for the collection and analysis of data. Its most common application is for the collection of data about the frequency or patterns of events. Data entry on the form is designed to be as simple as possible, with check marks or similar symbols. The check sheet is used most frequently in a production setting but can be easily applied anywhere in a company (Bragg, 2010).

Employee idea systems – This strategy originates a potentially infinite number of smaller cost reduction possibilities. The best way to obtain these smaller cost reductions is to create an employee idea collection system where a company actively solicits ideas from its employees, gathering dozen ideas per year and to implement most of the suggestions. Installing hundreds or thousands of cost reduction ideas is also a significant way to build up a competitive position in an industry because small ideas are much less visible to competitors, which means they are less likely to be copied. There is a great intrinsic value to an employee to see a suggestion implemented, so it is important to have a good implementation system in place. Implementation should be handled as soon as possible by front-line staff, not routed up through the corporate chain of command for approval. If management requires multiple approvals for each idea, there is more chance that it will be reject somewhere, which tends to discourage employees from making further suggestions. Also, a long approval process takes more

time, money and paperwork. A concern with employee idea systems is that they are very difficult to plan for, since cannot be quantified where or when cost reductions will be made or the amount of savings. However, if ideas are generated and implemented in large numbers, a company can generally estimate the amount of savings that may be generated, based on historical results (Bragg, 2010).

Error quantification – This method is based in the assumption that any error that results in a scrapped or reworked product or documents piles up costs. A company can create an information tracking system to aggregate error information, which is then summarized into a report. The report notes the number of incidences of an error event during the measurement period. It also notes the lost throughput of each item. If an item is scrapped, then the associated throughput is lost forever. If an item is reworked, then the cost of rework labor is offset against the lost throughput to yield a reduced level of throughput. Further, the report indicates the time and labor cost required for rework (Bragg, 2010).

Value stream mapping – An significant tool in the lean approach, this technique is used to identify value-adding practices and what is considered inefficient in materials, data and people. The objectives of VSM are to observe material flow in real time from the final customer to the raw material stage and to identify losses in the process. The advantages of this approach make a broad view of the flow in its entirety; helping to identify waste; Showing the relationship between the flow of content and information; offering a clear and standardized way of managing procedures; making decisions more noticeable (Azadfallah, 2018), allowing future modifications and enhancements and adjustments to be addressed previously; forming the basis for an action plan. Managing the value stream involves a process of understanding, measuring, and improving the flow of materials and information and the communications of all tasks, to keep a company's costs, services, and quality products as competitive as possible (William & Fazleena, 2014).

Waste analysis – Assessing cost reduction can be accomplished simply by identifying the various types of waste and then working to reduce them. The author identifies seven types of waste (Bragg, 2010):

- Additional processing – this is any production process that does not directly add value to a product, such as a quality control review.
- Defects – any processing that destroys or harms production that has already passed through the bottleneck operation is a form of waste, because it eliminates valuable throughput and may require additional expenditures for rework.
- Inventory – inventory of all types requires a working capital investment, incurs storage costs, and is at risk of obsolescence. It also hides other cost issues, such as production imbalances and poor work practices.
- Motion – any motion by employees that does not add value is a waste, which includes any equipment setup time.
- Overproduction – any production exceeding specific customer orders is a waste, because it uses materials and other resources, which then incur storage costs and are subject to obsolescence.
- Transportation – any movement of materials between any operations that transform the materials, such as between workstations in a production process. The more something moves, the more opportunity there is to damage materials.
- Waiting – any time when a machine or its operator is waiting is considered a waste of that resource. Waiting can be caused by unbalanced workloads, overstaffing, materials shortage, and so forth.

2.1.5. Unproductive Work Time

According to the Cambridge Dictionary, unproductive is defined as not producing very much and/or not producing positive results, while Infopedia defined as unprofitable and useless. Unproductive

and non-productive mean different forms of not being productive, either is from not doing nothing at all or doing something that's not productive.

Nonproductive hours include vacation, sick time, holiday pay, and other hours paid to employees while they are not engaged in their normal work. In some situations, break and lunch time may be carefully monitored to guard against the abuse of nonproductive work time. Sick leave is often monitored because absenteeism, and excessive use of sick leave is costly and reduces staff productivity (R. Langabeer II & Helton, 2016).

Is estimated that vacations, holidays, sick leave and other sources of paid nonproductive time total about 350 hours per year, for an estimated 17% of nonproductive hours to total paid hours. Nonproductive hours for any additional required training, such as to meet regulatory requirements, can push the paid nonproductive percent into the range of 20% to 25% of all paid hours (Waxman, 2013).

3. HYPOTHESES DEVELOPMENT

In line with the topic of this research, which aims to establish a positive scientific relationship between transformational leadership and employee autonomy, efficiency, cost savings and the reduction of unproductive work time, it is crucial to address the importance of our hypothesis. In order to validate this research, we need first to evaluate the validity of the four proposed hypothesis, which are properly described and consequently theoretically framed in order to address its academic validity and relevance.

3.1. Transformational Leadership and Employee Autonomy

Transforming leaders function based on a strong value system, based on integrity, honor, and justice. To a leader these values can't be negotiated or exchanged, which is passed on the followers', that ultimately achieve higher levels of performance and pursue goals that usually they wouldn't pursue (W. Kuhnert & Lewis, 1987). The managers leadership facilitates motivation and supports autonomous performance which is in line with substantial empirical studies that has been validating the beneficial effects of autonomy-supportive management style and the employee's motivation regarding their job and work performance (Hardré & Reeve, 2009). Proactive employees adopt and internalize organizational values and goals, holding it with strong emotional connotations which reflects the conceptualization of exemplary employees (Campbell, 2000).

Autonomy stimulates self-determination in employees, as they can choose alternative ways to approach tasks, experience more ownership, and have a more direct influence on results. This increases their willingness to take responsibility and to persist despite obstacles. Research indeed confirms employees are generally more proactive when they have more autonomy and transformational leaders can directly stimulate proactive behavior by developing and empowering employees by motivating them intellectually.

Transformational leaders articulate an attractive and challenging vision of the future and have high performance expectations, by infusing work with meaning, stimulating followers intellectually, and inspiring them to exceed self-interests. Transformational leaders are more change oriented and proactive themselves, acting as role-models of proactive behavior. For instance, by stimulating positive emotions, leaders can also indirectly boost proactive behavior. Research demonstrates that transformative leaders promote social influence and affective participation. Both affect and commitment relate positively to proactive behavior (Den Hartog & Belschak, 2012).

Thus, we hypothesize:

H1. Transformational leadership positively relates with the degree of employee autonomy.

3.2. Transformational Leadership and Efficiency

Organizational efficiency is how well a firm maximizes output from the resources it uses. Core employees have a positive effect in organizational efficiency, by developing their capabilities and

improving the internal processes, making them rare and inimitable, outperforming competitors. Those core employees are expected to overachieve and become more efficient as they develop their know how, being an advantage for the company since personal skills and personal capabilities are difficult to duplicate, meaning a competitive advantage over others (Dias et al., 2021; Lopez-Cabrales et al., 2006).

Pressures on productivity are important to collaborative behaviors and may also include a context against which progressive leadership is viewed as a call for collaborative solutions. The degree to which compensation and rewards are linked to the execution of individual tasks may negatively correlate with how attractive collaboration will appear. Performance-based rewards are known to shape the impact of transformational leadership.

Transformational leadership can be defined by practices such as "challenge familiar organizational processes, inspire a shared vision among employees, enable employees to act in accordance with their vision, model the way for employees to perform, and encourage employees through recognition and celebration of success" (Jaskyte, 2004:156).

An emphasis on internal efficiency can produce conflict between job demands and resources, which innovative behaviors may lighten. Cost reduction, eliminating unnecessary functions, and the general need to "do more with less" can drive organizations to embrace alternative paths to goal achievement. Collaboration allows organizations to access external resources, and the organization's emphasis on efficiency may make collaborative initiatives more attractive to its employees (Campbell, 2000). The transformational leader promotes the introduction of new principles, new ideals and embraces the aim for organizational effectiveness through effective communication, motivation and trust building (Duque et al., 2020; Lebrasseur et al., 2002; Mizuno & Odake, 2017). Thus, we hypothesize:

H2. Transformational leadership positively relates with the degree of efficiency.

3.3. Transformational Leadership and Cost Savings

A top-down approach where the CEO exhibits transformative leadership, according to studies, aligns the strategy, structure, and culture of the organization (Baporikar & Randa, 2020). The conflicting stakeholder objectives for quality and cost savings are coordinated under this leadership. A cognitive and behavioral change based on teamwork is carried out by the participants of the organisation, supported by instruction and education.

The good leader demonstrates charisma (envisioning, energizing, and enabling) and establishes instrumentality (structuring, managing, and rewarding) to guarantee organizational reorientation (Lebrasseur et al., 2002:147). A planned collective initiative is formed under progressive leadership to reform the organization's assumptions, ideals and beliefs, its strategies and operational methods. The members of the team stick to the target of consistency and the target of cost reduction. In order to create and sustain an overall organizational performance, senior management initiative and determination are necessary under transformative leadership (Lebrasseur et al., 2002).

Thus, we hypothesize:

H3. Transformational leadership positively relates with the degree of cost savings.
H4. Efficiency mediates the positive relation between transformational leadership and cost savings.
H5. Employee autonomy mediates the positive relation between transformational leadership and cost savings.

3.4. Transformational Leadership and Unproductive Work Time

Transformational leaders are defined as someone who can act proactive, raise followers' awareness for collective interests and help them to accomplish goals above what are expected. This leadership creates the awareness of a sharing common goal and a shared identity, reducing flawed processes and

associated preconceptions. Which means transformational leadership acts in consolidation of teams, by gathering them around an unique goal which reduces not productive results (Kunze & Bruch, 2010).

Studies found empirical support for the positive relation between transformational leadership and team cohesiveness through collective identification, which is align with a decrease intergroup conflict that is supported by the assignment of a subordinated goal. It is very common that in teams with high perceived transformational leadership, all dimensions of teams' productive energy will increase. Transformational leadership allow productivity and performance beyond expectation for individuals and for teams (Kunze & Bruch, 2010).

Thus, we hypothesize:

H6. Transformational leadership negatively relates with the degree of unproductive work time.
H7. Efficiency mediates the negative relation between transformational leadership and unproductive work time
H8. Employee autonomy mediates the negative relation between transformational leadership and unproductive work time

4. METHODOLOGY

4.1. Data Collection and Sample

The most used instrument for quantitative data gathering is the application of a questionnaire (Wilkinson & Birmingham, 2003). We used a non-probabilistic sample more specifically a convenience sampling, since the questionnaire was distributed through its publication and publicization in social networks and through dissemination to the professionals of an International company. The questionnaires were built up and answered on Google Forms.

The target population for the quantitative study was any person who work or had worked in Portugal, as the answers were to be based in a Portuguese professional experience. The questionnaire was anonymous and made available in Portuguese language, once it is the mainly used language of the respondents.

Before making the questionnaire available we conducted a pre-test validation, as it is the recommended procedure to discover format or content errors (Cooper & Schindler, 2013), guaranteeing that the final questionnaire is the best possible version of itself (Nichols & Hunter Childs, 2009). We applied the purposed questionnaire to a sample of 6 participants, all of them with different age range and a different academic and professional background. The pre-test was sent by e-mail, carried out in two day and resulted mostly in adaptations of the statements in order to better understand what was being asked. This resulted in the following adaptations:

× Respondents advised that the statement "In the company where I work, employees have the opportunity to participate in increasing organizational efficiency" was not clear about what was participating in organizational efficiency and the statement was changed to "In the company where I work, employees have the opportunity to create administrative and / or technical solutions that increase the efficiency of the processes ";
× Respondents advised that the statement "In the company where I work, the management of resources (human, material, monetary, among others) is done sensibly" should be divided into three different statements, because the companies may not have the same exactcly management in the three dimensions;
× Respondents advised that the statement "My Boss/Leader gives positive and negative feedback to employees" should also be divided, in this case in two sentences, because some leaders may only give one type of feedback;

- × Respondents advised that in the statement "In the company where I work they monitor all mistakes made to solve and gradually stop happening" the word "all" (= all) should be removed because may not be realistic for a company to be capable to monitor all errors;
- × Respondents advised that the statement "In the company where I work they make assessments to understand which processes can be optimized in order to reduce costs" was too long and respondents would lose focus, so it was changed to "In the company where I work they assess the processes that can be optimized in order to reduce costs ";
- × Respondents advised that the statement "In the company where I work there is more work to do than employees to do it" was confusing and one respondent gave the idea of the following statement, that end up being on the questionnaire, "In the company where I work there is insufficient human resources ".

Were received 174 valid responses to the questionnaire and the data collection occurred between August 3 and September 1 and of the respondents, 57,5% were female and 42,5% were male. In terms of age, 56.3% were between 20 and 29 years old, 29,9% were between 30 and 39 years old, 8,6% were between 40 and 49 years old, 4,6% were between 50 and 59 years old, and only one person was older than 60. Regarding the literary abilities, 40,8% had (or was finishing) a Master's Degree, 29,9% had (or was finishing) a Bachelor's Degree, 19% had an High School Degree, 8,6% had a Technical Professional Degree, and 1,7% had a Doctorate Degree.

Regarding the Professional Sector, the two areas most represented were the Wholesale and Retail and Financial and Insurance sector, with both 14,9% of the respondents; 13,8% in IT sector; 12,1% in Human Resources; 10,3% in Healthcare and Social Care; 6,3% in Education; 5,2% in Transportation and Logistics; 3,4% in both Construction and Communication and Marketing; 2,9% in both Hospitality, Catering and similar and Military Forces; 2,3% in Manufacturing Industries, Utilities (electricity, gas and water) and Public Workforce; 1,7% in Real Estate and 0,6% in both Extractive Industries and Law. Concerning the job profile, 51,7% are doing Technical jobs; 19% are doing Administrative jobs; 17,2% are in positions of Management; 9,8% are Salespersons and 2,3% are Directors.

Regarding the seniority, the majority of the respondents are working in the company for at least 6 months and up to 2 years; 24,1% are in the company for more than 5 years; 23% are in the company for at least 2 years and up to 5 years; and 14,9% are in the company for less than 6 months.

4.2. Instruments and Variables

The questionnaire followed the same order as the variables in the Literature Review comprising six different groups. It started with the Sociodemographic data, where was asked to describe the academic background and the professional situation. Then the subsequent 5 groups followed the variables of the research: Transformational Leadership, Employee Autonomy, Efficiency, Cost Savings and Unproductive Work time. In total was asked to answer 44 questions.

The Transformational Leader measure was based in the Multifactor Leadership Questionnaire created by Bass and Avolio (1990) more specifically in the statements regarding Idealized Influence, Inspirational Motivation, Intellectual Stimulation and Individual Consideration, the four elements of Transformational Leadership. This group had a total of nine statements.

The Employee Autonomy measure was adopted from two questionnaires, one created by Hackman and Oldham (1975) and the other by Breaugh (1985). Sample questions are "My Boss/Leader gives employees the opportunity to think and act independently", based in the "Desirable Job Characteristics" part of the original questionnaire by Hackman and Oldham (1975), and "My Boss/Leader gives employees the opportunity to complete their tasks in the period that is most convenient for them", were based in the questionnaire created by Breaugh (1985). This group had a total of nine statements.

The Efficiency Group was inspired by the authors present in the literature review in section 1.3. Sample questions are "In the company where I work, the management of human resources is done sensibly", which were inspired by the research of Witzel (2002), and "In the company where I work,

employees have the opportunity to create administrative and/or technical solutions that increase the efficiency of processes", inspired by Lopez-Cabrales (2006). This group had a total of eight statements.

The Cost Savings Group was inspired by the authors present in the literature review in section 1.4. Sample questions are "In the company where I work they evaluate the processes that can be optimized in order to reduce costs", inspired by Anand & Kodali (2008) and "In the company where I work, value the ideas of employees when they imply cost reduction" inspired by Bragg (2010). This group had a total of five statements.

The Unproductive Work Time Group was inspired by the authors present in the literature review in section 1.5. Sample questions are "In the company where I work there are many employees enjoying medical leave", inspired by Waxman (2013) and "In the company where I work there are many employees who miss work", inspired by Langabeer II and Helton (2016). This group had a total of seven statements.

All the statements in the questionnaire were evaluated by a odd-numbered Likert scale, which normally are preferred by respondents (Colman et al., 1997), as these are the "most commonly used psychometric scales for examining self-reported perceptions and attitudes" (Ho, 2017:676). Several researchers successfully assessed perceived organizational performance through the usage of a 5-point Likert scale (Ostroff, 1992; Som, 2008), we opted to use a 5-point Likert-scale, ranging from 1 (totally disagree) to 5 (totally agree).

5. RESULTS

In order to test our conceptual model was used structural equation modelling (SEM). More specifically, we use partial least squares (PLS), a variance-based structural equation modelling technique, by means of SmartPLS 3 software (Ringle et al., 2015). The analysis and interpretation of the results followed a two-stage approach, first we evaluated the reliability and validity of the measurement model and then assessed the structural model. We examined the individual indicators of reliability, convergent validity, reliability of internal consistency, and discriminant validity to assess the quality of the measurement model (Hair Jr et al., 2017). The results showed that the standardized factor loadings of all items were above 0.6 (with a minimum value of 0.66) and were all significant at $p < 0.001$, which provided evidence for the individual indicator reliability (Hair Jr et al., 2017). Internal consistency reliability was confirmed because for all constructs Cronbach's alphas and composite reliability (CR) values surpassed the cut-off of 0.7 (Hair Jr et al., 2017).

Table 4. Composite efficiency, average variance extracted, correlations, and validity tests of discriminants.

Latent Variables	α	CR	AVE	1	2	3	4	5
(1) Transformational Leadership	0,942	0,952	0,715	**0,846**	0,840	0,630	0,603	0,273
(2) Employee Autonomy	0,917	0,932	0,604	0,833	**0,777**	0,647	0,707	0,350
(3) Efficiency	0,890	0,914	0,606	0,581	0,598	**0,778**	0,840	0,461
(4) Cost Savings	0,765	0,865	0,681	0,512	0,598	0,723	**0,825**	0,477
(5) Unproductive Work Time	0,831	0,868	0,523	-0,278	-0,341	-0,453	-0,413	**0,723**

Note: α -Cronbach Alpha; CR -Composite reliability; AVE -Average variance extracted. Bolded

Numbers are the square roots of AVE. Below the diagonal elements are the correlations between the constructs. Above the diagonal elements are the HTMT ratios.

Convergent validity was also confirmed for three key reasons. First, as noted before all items loaded positively and significantly on their respective constructs. Second, all constructs had CR values

higher than 0.7. Third, as Table 4 shows, the average variance extracted (AVE) for all constructs exceeds the threshold of 0.50 (Bagozzi & Yi, 1988). The discriminant validity was assessed using two approaches. First, we used the Fornell and Larcker criterion. This criterion requires that a construct's square root of AVE (shown on the diagonal with bold

values in Table 4) is larger than its biggest correlation with any construct (Fornell & Larcker, 1981). Table 4 shows that this criterion is satisfied for all constructs. Second, we used the heterotrait-monotrait ratio (HTMT) criterion (Hair Jr et al., 2017; Henseler et al., 2014). As Table 4 shows, all HTMT ratios are below the more conservative threshold value of 0.85 (Hair Jr et al., 2017; Henseler et al., 2014). They provide additional evidence of discriminant validity.

The structural model was assessed using the sign, magnitude, and significance of the structural path coefficients; the magnitude of R2 value for each endogenous variable as a measure of the model's predictive accuracy; and the Stone Stone-Geisser's Q2 values as a measure of the model's predictive relevance (Hair Jr et al., 2017). However, we checked for collinearity before evaluating the structural model (Hair Jr et al., 2017). The VIF values ranged from 1.00 to 3.27, which was below the indicative critical value of 5 (Hair Jr et al., 2017). These values indicated no collinearity. The coefficient of the determination R2 for the four variables Employee Autonomy, Efficiency, Cost Savings and Unproductive Worktime perceived self-efficacy and innovativeness are 69.2%, 37.3%, 56% and 20.3%, respectively. These values surpass the threshold value of 10% (Falk & Miller, 1992).

The Q2 values for all endogenous variables (0.08, 0.29, 0.20, and 0.35 respectively) were above zero that indicated the predictive relevance of the model. We used bootstrapping with 5,000 subsamples to evaluate the significance of the parameter estimates (Hair Jr et al., 2017).

The results in Table 5 show that Transformational Leadership has a significantly direct positive effect on Employee Autonomy ($\beta = 0.833$, $p < 0.001$) and on Efficiency ($\beta = 0.271$, $p < 0.05$). These results provide support for H1 and H2, respectively.

Table 5. Structural model assessment

Path	Path Coefficient	Standard Errors	t statistics	ρ values
Transformational Leadership ® Employee Autonomy	0,833	0,024	34,746	0
Transformational Leadership ® Efficiency	0,271	0,113	2,397	0,017
Employee Autonomy ® Efficiency	0,373	0,116	3,2	0,001
Employee Autonomy ® Cost Savings	0,257	0,078	3,279	0,001
Employee Autonomy ® Unproductive Work Time	-0,11	0,083	1,33	0,184
Efficiency ® Cost Savings	0,569	0,067	8,493	0
Efficiency ® Unproductive Work Time	-0,387	0,082	4,727	0

These results provide support for the Employee Autonomy and the Efficiency being a mediator variable. Both Employee Autonomy and Efficiency, beyond having a significant direct effect with Transformational Leadership, also have significant direct effect on each other ($\beta = 0.373$; $p < 0.01$). Employee Autonomy and Efficiency also have a positive effect on Cost Savings, ($\beta = 0.257$; $p < 0.01$) and ($\beta = 0.569$; $p < 0.01$), respectively.

As we can see Transformational Leadership does not have a direct positive effect on Costs Savings, which means a first negative approach to the H3. To test the mediation on those variables not supported by the Transformational Leadership we followed the recommendations by Hair Jr et al. (2017:232). Therefore, we used a bootstrapping procedure to test the significance of the indirect effects via the mediator (Preacher & Hayes, 2008). Table 6 presents the results of the mediation effects.

Table 6. Bootstrap results for indirect effects

Indirect Effect	Estimate	Standard Errors	t statistics	ρ values
Transformational Leadership ® Employee Autonomy ® Efficiency	0,311	0,100	3,114	0,002
Transformational Leadership ® Employee Autonomy ® Cost Savings	0,214	0,065	3,292	0,001
Employee Autonomy ® Efficiency ® Cost Savings	0,212	0,070	3,017	0,003
Transformational Leadership ® Employee Autonomy ® Efficiency ® Cost Savings	0,177	0,060	2,920	0,004
Transformational Leadership ® Efficiency ® Cost Savings	0,154	0,066	2,344	0,019
Transformational Leadership ® Employee Autonomy ® Unproductive Work Time	-0,092	0,069	1,333	0,183
Employee Autonomy ® Efficiency ® Unproductive Work Time	-0,144	0,057	2,512	0,012
Transformational Leadership ® Employee Autonomy ® Efficiency ® Unproductive Work Time	-0,120	0,049	2,440	0,015
Transformational Leadership ® Efficiency ® Unproductive Work Time	-0,105	0,050	2,098	0,036

The indirect effects of Transformational Leadership on Cost Savings are significant via the mediator of Employee Autonomy ($\beta = 0.214$; $p < 0.01$) and via the mediator of Efficiency ($\beta = 0.154$; $p < 0.01$). These results do not provide support for the H3, but for the H4 and H5, first showing the importance of both mediator variables.

Efficiency and employee autonomy also influence as a mediator variable between transformational leadership and the reduction of unproductive work time, ($\beta = -0.105$; $p < 0.05$) and ($\beta = -0.092$; $p < 0.05$) respectively, allowing for them to have an indirect negative impact. This result allows us to not confirm H6 and to confirm H7 and H8.

6. DISCUSSION

According to the theory, Transformational Leadership enables followers to develop their own capabilities in order to have a better performance at work and the premises of the research was to show that the better performance happened with the existence of Employee Autonomy, which meant having proactive and motivated employees that don't need constant controlling and are able to determine their own work processes, having control over agendas and priorities. This first relation was seen in H1 and the results proved that exists a positive and significant relation between the existence of a Transformational Leader and the fact that this Leader creates a work environment where employees are prone to Autonomy, which ultimately are linked with "employee performance, work satisfaction, job involvement, absenteeism, and satisfaction with supervision" (Breaugh, 1985:552).

Transformational leaders have high performance expectations, by infusing work with meaning, stimulating followers intellectually, and inspiring them to exceed self-interests, which were confirmed by the first hypothesis, when attesting the connection with the evidence of Employee Autonomy. The results show that leaders with a Transformational approach are more change oriented and proactive themselves, acting as role-models of proactive behavior. Research shows that transformational leaders enhance positive affect and affective commitment, and both affect and commitment relate positively to proactive behavior (Den Hartog & Belschak, 2012).

The transformational leader encourages the adoption of new values, new beliefs and supports the goal for organizational effectiveness (Lebrasseur et al., 2002), which translates in how well a firm maximizes output from the resources it uses. The second hypothesis confirms and relates with positive

significance that the input of a Transformational Leader allows the followers to work with Efficiency in mind, managing human resources, material resources and money resources in a sensible way. Core employees have a positive effect in organizational efficiency, by developing their competences and improving the internal processes, whether administrative or technical. Reliable, immediate and adequate records for efficiency are implemented and is measured over time, determining if efficiency has been achieved. The results also prove the theory regarding standardized operations following scientific principles, particularly in terms of planning and work method, which results in processes being up to date whenever is beneficial for performance.

A new contribute to the theory is the direct effect that Employee Autonomy has on Efficiency, which complements what was known about each variable on their own. The presence of autonomy in a worker will mean a great possibility of doing tasks with efficiency in mind, and the other way around, because Efficiency also have a direct impact in Employee Autonomy. These two variables proved to be mediators, both having a direct impact in Cost Savings, which makes possible to prove the fourth hypothesis by an indirect effect of Transformational Leadership.

Extraordinary performance enables a company to achieve cost savings and can be accomplished by identifying the measures of performance indicators and comparing them to internal processes. The input of an employee regarding cost savings alternatives to procedures are important and the results show that leaders are paying attention and implementing them. Theory show that waste analysis is important to identify cost savings opportunities, by eliminating processes that does not add direct value to the product. Also eliminating overproduction, which requires more use of materials, resources and storage. The results showed us that most of the companies, represented by the respondents, are still wasting a lot of time with processes that are seen as a waste of time or simple processes that need superior approvals.

Regarding the last hypothesis, we found theory supporting transformational leadership as a consolidator of teams, by gathering them around an unique goal which reduces not productive results (Kunze & Bruch, 2010), and the results confirm it. We found negative relations between the Unproductive Work Time and Employee Autonomy and Efficiency, in both direct and indirect effects, which means a reduction of unproductive work time every time the evidence shows the signs of workers showing autonomy and efficiency.

7. CONCLUSIONS

7.1. Finding and Interpretations

Our research objective was to understand if Transformational Leadership as a direct impact in the four dependent variables, more specifically, if increases the autonomy of employees in the work place; if increases organizational efficiency; if increases the awareness and actual cost savings; and if decreases the amount of unproductive work time present in every company. That is accomplished through formulation and testing of four research hypotheses. For that purpose, we applied a questionnaire, preceded by a pre-test procedure, to a sample composed by employees or former employees of companies on various sectors, receiving a total of 174 valid answers.

Leaders who adopt a Transformational approach allow workers to be more autonomous in their work, the autonomy leverage the existence of efficiency in tasks and processes. Efficiency is also transmitted by cost savings, which translates into a reduction of unproductive work time. Also, the mediator effect of Efficiency and Employee Autonomy on the relation between transformational leadership and cost savings and between transformational leadership and unproductive work time, adds notoriety to Efficiency and Employee Autonomy itself, since it allows the increasing importance of both variables to achieve higher results. This finding is a new contribute to the literature because it shows indirect impacts that was not find in the literature during the review.

This study allow to confirm that the managers leadership facilitates motivation and supports autonomous performance which is in line with substantial empirical studies that has been validating

the beneficial effects of autonomy-supportive management style and the employee's motivation regarding their job and work performance (Hardré & Reeve, 2009). Validating that autonomy stimulates self-determination in employees, as they can choose alternative ways to approach tasks, experience more ownership, and have a more direct influence on results. This increases their willingness to take responsibility and to persist despite obstacles (Den Hartog & Belschak, 2012).

Also, was confirmed that the transformational leader encourages the adoption of new values, new beliefs and supports the goal for organizational effectiveness through effective communication, persuasion and confidence building (Lebrasseur et al., 2002), having a positive effect in organizational efficiency by developing their capabilities and improving the internal processes, making them rare and inimitable. Which transforms into an advantage for the company since personal skills and personal capabilities are difficult to duplicate, meaning a competitive advantage over others (Lopez-Cabrales et al., 2006).

The findings also confirm that employees under transformational leadership develop a collective mindset to match the organization's assumptions, values and beliefs, its goals and operating methods. There is the adherence to the goal of quality and the goal of cost savings by the members of the team (Lebrasseur et al., 2002).

The results indicate the existence of a relation between transformational leadership and team cohesiveness through collective identification, which is align with a decrease intergroup conflict that is supported by the assignment of a subordinated goal, that allows an increase in productivity and performance, beyond expectations for individuals and for teams (Kunze & Bruch, 2010).

7.2. Managerial Implications

The findings are most interesting in contribution to management because it showed that a transformational approach, which means, empowering the followers, leading based on a strong value system, sacrificing for the benefit of the group, setting an example, inspiring followers to foster innovation, supporting the individual needs of followers, by encouragement and coaching focusing more on their development, can increase productivity, efficiency, cost savings and can reduce unproductive work time.

By giving the opportunity to think and act autonomously, leaders give the employees a sense of responsibility that translates in positive results to the company. As long as leaders reinforce the importance of both positive and negative feedback, giving new visions to old problems, help employees develop themselves, giving opportunity to think autonomously, they will start to raise employees that care about the companies problems and that make the company goals, their goals. It is important that leaders begin to value the needs of employees and to ensure that they have all the conditions to do their job efficiently, and not having to rely on their superiors every step of their responsibilities.

This approach to leadership will decrease a major cause for lack of efficiency in the workplace, the unproductive work time. This last variable aggregates all the pauses and all the daily situations that allows employees to stop and to interrupt a task. It is important to meet employees needs also to prevent it to be a topic, to prevent absence and medical leaves due to stress and not being able to manage daily interactions. A leader is the center of a team and has to be a solid and focus center, to be able to address all problems, all solutions and all variables that impact that influence on team members.

7.3. Research Limitations and Future Research

Considering the present study, along with the subject under investigation, it is important to consider the following limitations. The sample size was a limitation, considering the universe of companies in Portugal, for a future research we recommend a wider distribution and advertising of the research questionnaire, in order to have a more complete and precise outcome. Regarding an international sample, would be very interesting to collect answers from other countries in order to make a comparison between countries. Regarding the questionnaire, could be seen as a limitation if we consider a more qualitative and descriptive approach to the situation, in which can be suggested to a future research

a more in depth interview to really understand how leaders impact in the employees work. The lack of previous research studies on the topic was a limitation because the research should be based on a complete and well-founded literature review, and in line with this limitation we recommend future studies to tackle a systematic review of some important concepts for the research in leadership and management.

For future research we recommend an approach that fits in the pandemic situation that we are still going through, in order to understand the inputs that it generated in the leaders' approach and how it changed the impact on autonomy, efficiency, cost savings and unproductive work time, since the implementation of home office was transversal to most companies.

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Renato Lopes da Costa is an entrepreneur and is currently President of the BCI- Business Case Institute and Vice President for the Accreditation and Academia area of ASP Iberia - Association for Strategic Planning. Renato Lopes da Costa and however recognized for his work in academic terms, having published dozens of scientific articles in the main international business management magazines and 6 books in the same scientific area. Throughout his career for several years he developed his business activity in the areas of retail and banking, developing projects of an operational nature in the areas of banking and management control in the retail area. Renato Lopes da Costa completed his doctorate in the area of business strategy at ISCTE - University of Lisbon, where he developed a pioneering work on the practices and praxis used by management consultants in the development of their work in client companies, contributing to the state of the art in scientific area of business strategy in the field of strategy-as-practice research. As a university professor, he supervised hundreds of masters and doctorates in the area of business management, being recognized for this valence, as well as for his teaching ability in the area of business strategy in undergraduate, master's and executive master's degrees, nationally and internationally. Having conducted several courses at various national universities, he is currently director of the MscBA - Master in Business Administration at ISCTE, with the course being listed on the prestigious lists of the financial times as one of the best European courses in the scientific area of management.