Dirassat & Abhath
The Arabic Journal of Human and Social Sciences

مجلة دراسات وأبحاث
المجلة العربية في العلوم الإنسانية والاجتماعية

EISSN: 2253-0363
ISSN : 1112-9751

What is the place of ergonomics in the culture of Algerian companies?

مكانة الأرغونوميا في ثقافة الشركات الجزائرية؟

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تاريخ الاستلام: 2025/07/17 **تاريخ القبول : 2025/09/23**

Abstract:

This study explores the role of ergonomics in Algerian corporate culture. After reviewing the literature that highlighted the importance of caring for the work environment to improve employee health and increase productivity, we conducted a descriptive study using semi-direct interviews with managers and operators of an Algerian company to analyze their perceptions of a positive work environment, the role of ergonomics in this, and the extent to which ergonomics is integrated into their work environment. The results showed that ergonomics is well-integrated into the work environment, as evidenced by practical measures and procedures such as protective equipment and safety procedures, reflecting the company's commitment to the well-being of its employees and workers. Furthermore, participants' responses highlighted the importance of instilling positive work values such as cooperation and listening. This study underscores the importance of ergonomic practices in providing a comfortable, safe, and productive work environment, while providing indicators for companies wishing to improve their policies in this area.

Keywords: ergonomics; positive work environment; company culture; employee health and well-being.

الملخص:

يستكشف هذا البحث مكانة الأرغونوميا في ثقافة الشركات الجزائرية. إذ بعد القيام بمراجعة الأدبيات التي سلطت الضوء على أهمية الاعتناء ببيئة العمل في سبيل تطوير صحة العامل وزيادة الإنتاجية، قمنا بإجراء دراسة وصفية استخدمت فيها مقابلات شبه مباشرة مع مديري ومشغلي إحدى الشركات الجزائرية لغرض تحليل تصوراتهم لبيئة العمل الايجابية، ودور الأرغنوميا في ذلك، مع التعرف على مدى ادماج هذه الأخيرة في بيئة عملهم.

أبانت النتائج أن الأرغنوميا مدمجة بشكل جيد في بيئة العمل، ويتجلى ذلك من خلال التدابير والإجراءات العملية المعتمدة مثل: معدات الحماية، وإجراءات السلامة وهو الأمر الذي يعكس التزام الشركة برفاهية الموظفين والعاملين فيها. بالإضافة إلى ذلك، أظهرت إجابات المشاركين على أهمية ترسيخ القيم الايجابية في العمل كالتعاون، والاستماع. بهذا تؤكد هذه الدراسة على أهمية الممارسات الارغونومية في توفير بيئة عمل مريحة، آمنة ومنتجة، مع تقديم مؤشرات للشركات الراغبة في تحسين سياساتها في هذا المجال.

الكلمات المفتاحية: الأرغونوميا ؛ بيئة العمل الايجابية ؛ ثقافة الشركة ؛ صحة ورفاهية العامل

1. INTRODUCTION

Occupational psychology, sociology of work, sociology of health, different disciplines that share the same perspective on the usefulness of ergonomics in the Algerian company and its role in prevention and development as well as the need for a culture and a regulated practice for the application of ergonomic modalities.

Ergonomics is a key field that studies the interaction between man and his work environment, and plays a crucial role in corporate culture by helping to improve productivity, health, hierarchical collaboration, safety and employee well-being. Ergonomics is concerned with the effect of work on both health and production (Bellemare, 2011).

Physical ergonomics concerns the study of physical load, such as movements, postures and workplace layout, based on scientific disciplines such as physiology, anatomy, anthropometry and biomechanics (Teiger, C. (1993).

Cognitive ergonomics studies the psychological processes associated with work, such as mental load, decision-making processes, the interaction between human and technical factors, human errors and work-related stress (Sperandio, J. C. (1987).

Well-being at work is an all-encompassing concept, going beyond the notions of physical and mental health. It refers to a general feeling of satisfaction and fulfilment in and through work, focusing on the personal and collective perception of situations and constraints in the professional sphere (Pénicaud, M. 2010).

Corporate culture encompasses the values, beliefs and practices shared within an organisation. It refers to the norms, rules and habits that guide the way companies operate (Claude, 2006).

However, in Algeria, companies lack a real culture of prevention linked to the notion of social morality and professional and human conditions, which underlines the importance of developing a corporate culture focused on ergonomics to promote the health and well-being of employees. An individual's personal expectations and values may influence his or her demands for results at work, which may differ from those of his or her colleagues. What's more, a person's state of mind changes throughout the working day, whether as a result of accumulated fatigue or in response to working conditions or events in their work environment (St-Vincent, et all, 2011). Organisational ergonomics involves developing these work processes and optimising tasks, which helps to reduce mental pressure, reduce stress and improve hierarchical collaboration, productivity and employee performance.

Several research studies, such as the application of ergonomics in the industrial sector in Algeria, analyse the application of ergonomic principles in the Algerian industrial sector, highlighting the challenges and opportunities. It also examines the impact of ergonomics on the productivity, health and safety of workers (Zahi, C., & Boussena,1988).

These studies emphasise the need to set up a system for adapting employees to their machines or work tools in order to optimise the human-work system; the fragility of employees' body parts due to the nature of their physical position, the monotony and the alienation of gestures from the action performed in a professional environment that is rarely in conformity; we would also add the role of ergonomics in technology transfer in Algeria and the importance of taking ergonomics considerations into account in the company upgrading programme (Mohammed, 2012).

To this end, our study focuses on the following question : What place does ergonomics have in the culture of Algerian companies ?

Looking at ergonomic practice in the Algerian company, it would be interesting to find out whether the Algerian company adopts an ergonomic approach in its culture, and also to determine the values of this culture, those which are integrated into the ergonomic approach at work.

2. Method :

As part of this study, a descriptive survey was

carried out using semi-structured interviews with the managers and machine operators of the company surveyed. The choice of methodology for this study was based on the effectiveness of obtaining rich, flexible and contextualised data, thus providing an in-depth and nuanced understanding of the subject matter. Eleven interviews were carried out in the field, three with managers, including the company's managing director, human resources manager and quality, safety and environment manager. Eight interviews were also conducted with machine operators. The decision to limit the number of interviews to eleven was deliberately based on the notion of data saturation. Analysis of these interviews revealed a significant convergence of themes and perspectives evoked by the participants. The period devoted to carrying out the field survey was organised according to the availability of the participants.

3. Technical details

The interview guide developed for this survey is structured around a series of ten open-ended questions designed to encourage in-depth exploration of key themes related to the place of ergonomics in corporate culture. The questions were carefully designed to meet the objectives of this study, namely to determine whether ergonomics is embedded in Algerian corporate culture, as well as to determine the values of that culture, those that are embedded in the ergonomic approach to work.

In order to measure the impact of ergonomics on corporate culture, three thematic areas need to be addressed:

- Employee health and safety
- Productivity;
- Quality of life at work and collaboration.

Key elements that can help measure the impact of ergonomics on corporate culture:

- Reducing the risk of work-related health problems;
- Musculoskeletal disorders (MSDs);
- Foster an employee-centred corporate culture by taking into account employees' physiological, psychological and organisational needs;
- Boost productivity and overall system performance;
- Reduce team stress and improve quality of life at work.

3.1. population

The choice of the study population is based on the complementary perspectives that managers and machine operators bring to the subject of ergonomics in corporate culture.

According to the objectives of this survey, it would be relevant to have the strategic perspective of managers, as they are often responsible for defining the company's policies and strategic directions, and their viewpoint on ergonomics can inform the strategic decisions and investments needed to promote a corporate culture focused on employee well-being. And machine operators are directly involved in the execution of day-to-day tasks; their on-the-job experiences provide valuable insights into the ergonomic challenges encountered on a daily basis and any gaps in the implementation of ergonomic practices. By including both management and machine operators, this study aims to gain a holistic understanding of ergonomics in corporate culture.

By combining the perspectives of managers and machine operators, it provides a comprehensive view of ergonomics in corporate culture.

3.2. field presentation

The field survey was carried out at GOURAYA GOLF, a company specialising in the preservation and packaging of canned tuna located in the wilaya of Bejaïa on a 8125m² superficie, equipped with several modern, top-of-the-range production lines that meet international standards.

Operating under the ‘GOURAYA THON’ label, the company has a varied product range comprising 07 products in several different can formats.

The company holds certification - Quality Management Systems - in accordance with the requirements of ISO 9001, version 2015.

Characteristics of the study population :

We opted to use codes to represent the characteristics of the participants, in order to summarise the data concisely while

preserving the anonymity of the participants. The characteristics are broken down as follows:

- Gender: male; female.
- Age: [25-35] 1; [35-45] 2; [45-55] 3
- Professional rank: manager, machine operator.
- Work experience: [1-5] 4 ; [5-10] 5 ; [10-15] 6.

Characteristics Gender Age Grade Professional experience
Participant 1 Male 2 Manager 6
Participant 2 Male 1 Manager 4
Participant 3 Female 1 Manager 4
Participant 4 Female 2 Machine operator 5
Participant 5 Female 1 Machine operator 4
Participant 6 Female 2 Machine Operator 5
Participant 7 Female 2 Machine operator 5
Participant 8 Female 2 Machine Operator 4
Participant 9 Female 2 Machine operator 4
Participant 10 Female 2 Machine Operator 5
Participant 11 Female 3 Machine Operator 6

4. RESULTS AND DISCUSSION

4.1. Presentation and analysis of the results

Following semi-directive interviews with open questions on the theme of (the place of ergonomics in the corporate culture), the results obtained offer a significant insight into the perceptions of managers and machine operators.

The results are consistent with the initial themes of our research, as will be seen in the rest of this analysis:

- Benefits of the ergonomic approach in the company:

The first question addressed to the managers, What are the advantages for your company of adopting an ergonomic approach? Revealed concordant responses among the three participants. These benefits include putting all employees at ease, taking into account the psychological well-being of employees, adapting equipment to workers, promoting work fluidity, facilitating the passage of information, and making workers feel comfortable in their working environment.

These responses provide an initial overview of the perceived benefits of ergonomics within the company, providing a solid basis for analysing the overall results.

- Improving employee health and safety through ergonomics :

In response to the question about how ergonomics can improve employee health and safety, the managers' answers highlighted a number of key points. The first manager highlighted the existence of health prevention procedures, the importance of occupational medicine and the adaptation of equipment to workers as ways of guaranteeing health and safety. The second manager highlighted the link between good working conditions, the prevention of workplace accidents and musculoskeletal disorders (MSDs), and the preservation of employee health. The third manager also added that the company rules promote a culture of prevention, and the need to comply with the various health and safety regulations.

These responses highlight the importance of ergonomics in promoting a safe and healthy working environment, offering avenues for future initiatives in this area.

- Impact of ergonomics on productivity and quality of work :

Managers' responses to the question on how ergonomics can improve productivity and the quality of work highlight several key points. First of all, the adoption of procedures that enable work to be adapted to operators fosters a climate conducive to performance and quality production. Awareness of the importance of precision, particularly in industries such as food where error is not tolerated, is emphasised.

In addition, the incorporation of ergonomic features such as headphones to attenuate machine noise helps to safeguard employees' health and minimise distractions, such as migraines, which could adversely affect the quality of work. By providing employees with the necessary equipment such as helmets, safety shoes and gloves, the company demonstrates its commitment to the safety and well-being of its workers, which can also have a positive influence on productivity and the quality of work.

These responses underline the importance of ergonomics in promoting an efficient and safe working environment.

- Integrating ergonomics into the corporate culture :

Managers' responses to the question on integrating ergonomics into the corporate culture underline the importance attached to this dimension. Efforts are concentrated on several aspects, including communication and training. The presence of instructions and posters throughout the company shows that employees are constantly aware of good practice and safety standards, particularly as regards food safety.

In addition, the organisation of training courses and the creation of a manual containing values and instructions to be followed reinforce the company's commitment to ergonomics and safety in the workplace. The adoption of an ergonomic approach as a fundamental value of the company reflects an organisational culture focused on employee well-being and product quality. By taking into account all working conditions and preserving worker's health, the company aims to guarantee the best performance while ensuring the safety and well-being of its staff.

These responses illustrate the importance of organisational commitment in promoting ergonomics within the company and its contribution to a work culture conducive to health and productivity.

- The role of corporate values in the ergonomic approach :

Manager's responses to the question on the integration of company values into the ergonomic approach highlight the way in which these values are manifested in day-to-day interactions and personnel management. Managers stress the importance of compliance with company rules and procedures, while emphasising the creation of an employee-friendly working environment.

Active listening and collaborative conflict resolution among employees are valued, demonstrating a commitment to psychological well-being and team cohesion. In addition, the emphasis on positive interpersonal relations between the different hierarchical levels fosters a climate of trust and collaboration, which is essential for ensuring fluid and effective communication. By way of example, in the discussion with the manager, he highlighted an example of a situation in which he expressed: (I go out of my office, I find a small conflict between employees, I don't pressure or play the manager, no on the contrary I put my hand on the employee's shoulder I ask him what's the problem? then I listen to all concerned then we find a solution).

The openness of management offices and the willingness of managers to listen to employees' concerns reflect an organisational culture based on transparency and inclusiveness. Similarly, the efforts made to make operators aware of production requirements, while recognising their contributions and supporting them during periods of intense workload, reflect an empathetic and proactive approach to human resources management.

By integrating these values into the ergonomic approach, the company fosters a working environment that values well-being, collaboration and operational excellence, thereby helping to strengthen its organisational culture and overall performance.

- Raising employee awareness of the importance of ergonomics :

Managers' responses highlight several strategies for raising employee awareness of the importance of ergonomics . First of all, the use of safety and hygiene instructions, and the presence of sheets reminding employees of the rules to be followed, are tangible ways of communicating good ergonomic practice within the company.

Posting notices throughout the premises reinforces this awareness by constantly reminding people of the importance of complying with instructions in order to protect employee's health. In addition, the organisation of dedicated awareness sessions provides a further opportunity to remind employees of the importance of taking ergonomic aspects into account in their daily work.

These combined efforts aim to create a

culture of safety and well-being within the company, by encouraging a collective awareness of the issues involved in ergonomics . By providing regular reminders and training opportunities, the company demonstrates its commitment to the health and well-being of its employees, helping to create a safe and productive environment.

The responses from managers highlight a proactive approach to ergonomic instructions within the company. Compliance is presented as an obligation for all employees, not only for their health and safety, but also for the overall productivity of the business. This perspective underlines the importance attached to compliance with standards and best practice from the outset of the company's creation.

The fact that employees did not specifically request these guidelines indicates that ergonomics best practice has been successfully integrated into the company's culture from the outset. Their certification to 9001 and 2200 food quality and safety standards is testament to their commitment to operational excellence and customer satisfaction.

The training provided to employees, focusing on both quality and safety, reinforces their understanding of the importance of these ergonomic guidelines in achieving these objectives. By focusing on compliance with health and safety instructions, the company seeks to guarantee product quality while safeguarding the health and well-being of its employees. This holistic approach helps to create a working environment where performance and compliance go hand in hand, promoting the company's success and sustainability.

- Evaluation of the effectiveness of the company's ergonomic approach :

The responses related to the evaluation of the effectiveness of the ergonomic approach in their company, highlight key indicators such as, the prevention of risks related to operators and the product is identified as a central element of this evaluation. The absence of work-related accidents and illnesses is seen as a positive indicator of the effectiveness of the ergonomic approach.

The health and well-being of employees are directly linked to working conditions and ergonomic considerations. The fact that employees have not suffered any occupational illnesses or accidents is testimony to the effectiveness of the ergonomic measures implemented in the company. By monitoring these performance indicators, the company can regularly evaluate the effectiveness of its ergonomic approach and identify areas for improvement to ensure an optimal working environment for its employees.

- Integrating ergonomics into the company's development plan:

By asking about the place of ergonomics in the company's development plan, the answer provided to the question clearly demonstrates the importance attached to ergonomics in the company's development plan. Ergonomics is seen as crucial to the well-being and performance of workers, and by extension, to the overall success of the company.

Recognition of the direct link between working conditions, employee mental and physical health, and productivity, underlines the strategic importance of ergonomics in the planning and implementation of business activities. By investing in ergonomics , the company recognises that the well-being of workers is a key factor in maintaining efficient production and preserving the company's reputation.

Valuing employee's experience and knowledge, as shown by the example of the woman with 11 years' experience, also illustrates the company's culture of collaboration and continuous learning. By taking on board employee's advice and comments, the company shows its commitment to constantly improving working conditions, and the safety and well-being of its employees is a priority.

In conclusion, integrating ergonomics into a company's development plan helps to make it more competitive, stable and sustainable in the long term.

It is interesting to observe the responses of machine operators in order to compare and

complement interviews with managers. As there is a difference in position and role between managers and machine operators, their views on ergonomics and its impact may vary.

- Impact of ergonomics on machine operators :
- Expansion of the number of work teams
- Use of new ergonomic equipment

The responses from the nine machine operators highlight a number of changes that have been observed in their working environment since the ergonomic measures were put in place. These changes include an expansion in the number of work teams, which can potentially reduce individual workloads and improve task distribution.

The introduction of new ergonomic equipment such as noise-cancelling headphones, safety shoes and multiple workwear indicates an investment in employee safety and comfort. The transition from flip-flops to safer, more comfortable footwear also reflects an awareness of the risks associated with previous working conditions and a desire to improve safety conditions.

These observations suggest that the implementation of ergonomic measures has had a positive impact on the working environment of machine operators.

- Improving operator health and safety

When asked about the improvement in the health and safety of machine operators since the introduction of ergonomic measures, all the operators emphasised that they now feel more comfortable and safe in their working environment. Safety shoes help to reduce the risk of slips and falls, while earmuffs help to prevent hearing problems and headaches associated with the constant noise from the machines.

In addition, the company demonstrates sensitivity to employee's individual health needs. Operators report that the company takes their medical conditions into consideration and seeks to offer them a working environment adapted to their needs. These testimonials underline the importance of ergonomics in promoting a safe, healthy working environment that respects employee's individual needs. By investing in the health and safety of its workers, the company is demonstrating its commitment to the well-being of its staff and its desire to create optimal working conditions for all.

- Improved productivity and quality of work

Responses from machine operators highlight the positive impact of ergonomics on their productivity and the quality of their work. Improved working conditions, such as personal protective equipment (helmets, footwear, clothing), help to create an environment conducive to concentration and quality of work.

By feeling comfortable and having the necessary equipment, operators can concentrate fully on their tasks without being distracted by concerns about their comfort or safety. The cleanliness of the equipment is also highlighted as an important aspect of their work, and the improved ergonomic conditions help them to maintain this essential aspect of the quality of the final product.

In addition, operators stress the importance of not being distracted by external concerns, such as not having the right equipment or having to adapt to uncomfortable working conditions. Greater concentration on the job can lead to better quality production, particularly in the case of food products where the margin for error is minimal.

These testimonials highlight the close link between ergonomic working conditions, employee concentration and production quality.

- Improved relations and collaboration within the company:

The responses from machine operators highlight an improvement in relations and collaboration within the company since the introduction of ergonomic measures. The company's availability and willingness to listen help to strengthen trust and mutual respect between employees and managers.

Solidarity between colleagues is also emphasised, with concrete examples of mutual support, such as taking over the task of a tired colleague to allow him or her to rest.

This attitude demonstrates team spirit and a culture of mutual support within the company.

Open communication between employees and management enables problems to be resolved effectively and worker's concerns to be addressed. Although not all requests can be met, transparency and proactive problem management help to maintain a climate of trust and understanding within the team.

- Significant integration of ergonomics into the corporate culture:

Machine operators also emphasised the significant integration of ergonomics into the corporate culture. The responses highlight the importance attached to health and safety procedures, as well as the evaluation of the effectiveness of the ergonomic approach through indicators such as the absence of work-related accidents and the preservation of workers' health.

The company's commitment to continuous improvement is also underlined, in particular by the fact that it is waiting for a new automatic machine that will help to reduce the physical effort required of operators. This approach reflects the company's commitment to investing in ergonomic technologies and equipment to improve working conditions and optimise production processes.

4.2. discussion

The discussion of the results of this study will highlight the similarities and differences between the results obtained during our investigation and the results of previous studies, while also highlighting the unique contributions of our research.

- Improving working conditions through ergonomics :

The results of our study are consistent with previous research that has shown that ergonomics can help improve employee's working conditions, reducing the risk of injury, increasing comfort and promoting productivity (Lautrent, 2023).

- Impact of ergonomics on health and safety :Our results highlight the importance of ergonomics in promoting health and safety at work, by reducing the risk of accidents and improving workers' well-being. These findings are in line with previous research which has shown that appropriate ergonomic measures can reduce occupational injuries and illnesses (Sebti, 2021).

- Improved collaboration and interpersonal relationships:

Our study highlights the positive impact of ergonomics on collaboration and relationships between employees, as well as between employees and management. These results are consistent with previous research that has highlighted the importance of working conditions conducive to communication and cooperation for optimal organisational performance (Van, K. 2021).

- The need for continuous improvement:

Finally, our findings highlight the need for continuous improvement of the ergonomic approach in the company. This perspective is in line with the recommendations of previous studies, which have highlighted the importance of keeping abreast of new technologies and emerging practices in order to maintain a safe and effective work environment (Carayon et al., 2019; Dempsey et al., 2021).

In summary, our study sheds additional light on the results of previous studies, highlighting the importance of ergonomics in improving working conditions and employee health and safety, as well as in promoting a collaborative organisational culture focused on continuous improvement.

3. CONCLUSION

This study explored the place of ergonomics in the corporate culture of Algerian companies, focusing on one specific company. The results confirm that ergonomic occupies a significant place within the corporate culture of this organisation.

Interviews with managers and machine operators revealed that ergonomics is integrated at different levels of the company, from organisational policies to day-to-day practices in the field. The ergonomic measures put in place, such as personal protective equipment, safety procedures, and listening to workers' individual needs, demonstrate the company's commitment to the wellbeing and health of its employees.

The results also highlighted the tangible benefits of the ergonomic approach, including improved working conditions, reduced risk of accidents and occupational illness, and enhanced interpersonal relations and collaboration within the team.

In conclusion, this study confirms the importance of ergonomics in the corporate culture of Algerian companies, as a key factor in the health, safety and well-being of workers. It also highlights the need for companies to continue to promote and integrate ergonomic practices into their overall strategy, in order to guarantee an optimal and sustainable working environment for their employees.

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