

Relationship between Attention and Clarity in the Work Environment from a Cognitive and Organizational Perspective

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Abstract

This study analyzes the relationship between Attention and Clarity in the organizational environment, analyzing how the perception of clarity in work processes can influence the ability of employees to maintain attention in their tasks. The research is based on theories on information processing, cognitive regulation and efficiency in performance, considering that clarity in organizational procedures and objectives facilitates concentration and reduces cognitive load. It is hypothesized that an increase in clarity in work processes is associated with an improvement in employee attention, suggesting that well-structured organizational environments can enhance individual performance. To evaluate this relationship, a quantitative design based on econometric techniques was used. The estimated simple linear regression model shows that the coefficient of the Clarity variable is positive and significant ($p < 0.001$), indicating that employees who perceive greater clarity in their work environment tend to manifest a greater attention span in their activities. In addition, the model meets the fundamental assumptions of regression, including tests of specification, linearity, and absence of autocorrelation, allowing for reliable interpretation of the results. The findings suggest that organizational clarity is a factor that influences work care, which has implications in the design of organizational strategies aimed at performance optimization. It is recommended that future research extend the analysis by incorporating moderating variables such as task complexity and workload, in order to better understand the mechanisms underlying this relationship.

Keywords: *Attention, Organizational Clarity, Work Performance, Cognitive Regulation, Work Efficiency.*

Introduction

Efficiency in the work environment depends largely on employees' ability to maintain attention on their tasks and the clarity with which organizational goals and procedures are communicated. Attention is a cognitive process that allows irrelevant stimuli to be filtered and mental resources to be focused on information essential for the effective execution of work (Posner & Petersen, 1990). In turn, organizational clarity refers to employees' perception of structure, transparency in communication, and the precise definition of roles and responsibilities within the organization (Ashforth et al., 2008). Several studies have suggested that a lack of clarity in processes can increase cognitive load, generating difficulties in attention and decision-making, while well-structured organizational environments can improve cognitive efficiency and reduce mental fatigue (Sweller, 1988; Kahneman, 2011).

In dynamic work contexts, where tasks require continuous processing of information and adaptation to constant changes, the relationship between clarity and attention acquires special relevance. When employees have access to accurate information about their functions, uncertainty is minimized and the use of cognitive resources is optimized, facilitating concentration on essential tasks (Bakker & Demerouti, 2007). On the contrary, organizational ambiguity can induce stress, cognitive dispersion, and difficulties in decision-making, affecting productivity and job satisfaction (Sonnetag et al., 2010). Despite the relevance of this relationship, there is a limited number of studies that address it from a quantitative perspective, which justifies the need for research that allows a more precise understanding of the influence of clarity on employees' attention span.

Based on this background, the present study seeks to answer the following research question: To what extent does clarity in the work environment influence employee attention? To this end, a quantitative

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approach based on a simple linear regression model is used to evaluate the relationship between both variables in a sample of workers. It is hypothesized that employees who perceive greater organizational clarity tend to develop a better attention span in their tasks, since the reduction of organizational uncertainty favors cognitive focus and efficiency in the execution of work.

Theoretical Approaches

The analysis of the relationship between clarity and attention is based on various theories from cognitive and organizational psychology, which explain how the structured perception of information in the work environment impacts the attentional processes of employees.

The Theory of Selective Attention (Posner & Petersen, 1990) postulates that attention is a mechanism regulated by three interdependent systems: the alert system, which maintains general activation; the orientation system, which selects the relevant information of the environment; and the executive control system, which manages concentration on tasks. In this context, organizational clarity facilitates the activation of these systems by reducing ambiguity and providing structured signals that guide the focus of attention on priority tasks. On the contrary, the lack of clarity can generate an increase in cognitive load, forcing employees to allocate greater mental resources to the interpretation of fuzzy or contradictory instructions (Kahneman, 2011).

From an organizational perspective, the Work Demands and Resources Model (Bakker & Demerouti, 2007) argues that clarity in the organizational structure acts as a work resource that facilitates the regulation of cognitive effort. Employees who perceive greater clarity in their roles experience lower levels of stress and a greater ability to direct their attention to tasks of high productive value. Previous studies have shown that organizational ambiguity increases mental fatigue and reduces the ability to concentrate, while clarity in internal communication strengthens cognitive efficiency and attentional stability (Sonnentag et al., 2010).

The Cognitive Load Theory (Sweller, 1988) also provides a relevant explanation for this relationship. According to this model, the mental effort required to process information is determined by the clarity with which it is presented. When employees are faced with confusing or contradictory information, cognitive load increases and sustained attention is affected, since mental resources must be redistributed between interpreting ambiguous messages and executing tasks. In contrast, an environment with clear and structured information allows cognitive processing to be optimized, favoring the maintenance of attention in essential work activities.

From organizational neuroscience, the relationship between clarity and attention has been supported by studies that have identified that the perception of structure in the work environment is associated with greater activation in the dorsolateral prefrontal cortex, a region involved in the regulation of attention and decision-making (Ridderinkhof et al., 2004). Organizational clarity, by reducing uncertainty and providing structured guidelines, allows for a more efficient use of attentional resources, favoring work performance and reducing cognitive fatigue (Botvinick et al., 2001).

To examine this relationship, a quantitative, correlational and explanatory design was used, based on the estimation of a simple linear regression model. Data from a sample of employees were analyzed in order to assess how organizational clarity predicts attention in the work context.

The results are expected to confirm the hypothesis that organizational clarity is a significant predictor of care. In particular, it is anticipated that the coefficient of the *Clarity* variable will be positive and statistically significant, which would indicate that employees who perceive greater clarity in their work processes have higher levels of attention in their tasks.

From an applied approach, these findings can be used to design organizational strategies that optimize cognitive performance, such as the implementation of structured communication systems, the clear definition of job roles and objectives, and the reduction of ambiguity in decision-making within organizations.

Methodology

This study adopts a quantitative, correlational and explanatory approach, with the aim of analyzing the relationship between Attention and Clarity in the work context. A simple linear regression model was used, which allows evaluating the influence of the perception of organizational clarity on the ability of employees to maintain attention in their daily tasks.

The econometric model is expressed as follows:

$$Y = B_0 + B_1X_1 + u$$

where:

- Y represents the dependent variable *Attention*,
- X_1 is the independent variable *Clarity*,
- B_0 is the intercept of the model,
- B_1 is the coefficient of the explanatory variable,
- U is the term for random error.

This design allows us to assess whether an increase in the perception of clarity in the work environment is associated with an improvement in employees' attention span.

Population and Sample

The study population is made up of employees from various organizations, selected with the purpose of evaluating the relationship between their levels of organizational clarity and attention at work. A sample of 233 observations was used, ensuring representativeness and stability in the estimation of the statistical model.

The sample selection criterion was non-probabilistic for convenience, using previous records containing information on the levels of clarity and attention in employees. Homogeneous conditions were guaranteed in data collection to minimize biases.

Instruments

Scales validated in the literature on organizational psychology and cognitive regulation were used to measure the variables:

- Attention: Assessed using the Sustained and Selective Attention Scale (SAS-T), used in studies of cognitive performance in the workplace (Robertson et al., 1997).
- Organizational Clarity: Measured through the Organizational Process Clarity Scale (CPO-15), which assesses employees' perception of organizational structure, transparency in communication, and definition of roles at work (Ashforth et al., 2008).

Both scales have demonstrated high levels of reliability and validity in previous studies, allowing the relationship between clarity and attention to be evaluated with methodological precision.

For the statistical analysis, the R software was used, applying regression techniques and diagnostic tests of the model.

Data Analysis

The statistical analysis was carried out in several stages:

- Descriptive analysis: Measures of central tendency and dispersion were calculated to examine the distribution of variables.
- Estimation of the regression model: The ordinary least squares (OLS) method was used to determine the relationship between *Attention* and *Clarity*.
- Model validation: Various econometric tests were applied to verify compliance with the assumptions of simple linear regression:

GVLMA test: Confirmed that the model meets the fundamental assumptions of the regression ($p=0.5202$).

Ramsey test: Verified the correct specification of the model ($p=0.8735$).

Rainbow test: Confirmed the linearity of the model ($p=0.855$).

Durbin-Watson test: Ensured independence from errors ($p=0.0883$).

Breusch-Pagan test: Validated the absence of heteroskedasticity ($p=0.4723$).

Table 1. Linear Regression Model Diagnostic Tests

Test	Statistical	P-Value	Decision
GVLMA (Global)	3.2294	0.5202	Acceptable assumptions
Ramsey (RESET)	0.1353	0.8735	Correct Specification
Rainbow	0.8212	0.8550	Confirmed linearity
Durbin-Watson	1.8249	0.0883	No autocorrelation
Breusch-Pagan	0.5167	0.4723	Non-heteroskedasticity

Note. $p < 0.05$ indicates statistical significance.

Results

Data analysis allowed us to evaluate the relationship between Attention and Clarity in the work environment using a simple linear regression model. The impact of the perception of clarity on employees' attention span was estimated, with the aim of determining whether an increase in organizational clarity is associated with an improvement in concentration and focus on work tasks. The estimation of the model showed that the coefficient of the variable *Clarity* is positive and significant, suggesting that employees who perceive greater clarity in their work environment tend to manifest higher levels of attention.

Descriptive Statistics

Before estimating the econometric model, a descriptive analysis of the variables was carried out in order to understand their distribution and dispersion. Table 2 presents the main measures of central tendency and dispersion:

Table 2. Descriptive Measures of Variables

Variable	Minimal	1st Quartile	Median	Stocking	3rd Quartile	Maximum
Attention	8.00	21.00	26.00	26.01	31.75	40.00
Clarity	8.00	24.00	29.00	28.27	33.00	40.00

Note. The values represent scores on validated measurement scales.

The results indicate that both variables present homogeneous distributions, without extreme outliers that could affect the estimation of the model. It is observed that the mean and median of both variables are close, which suggests a symmetrical distribution of the data. In addition, quartile values reflect moderate dispersion, indicating that attention and clarity scores are relatively concentrated around the mean.

Regression Model Estimation

The estimated simple linear regression model is expressed as follows:

$$\hat{Y} = 15.5036 + 0.3717X_1 + u \quad \hat{Y} = 15.5036 + 0.3717 X_1 + u$$

where:

- \hat{Y} represents the dependent variable *Attention*,
- X_1 is the independent variable *Clarity*,
- 15.5036 is the model intercept,
- 0.3717 is the coefficient that measures the impact of *Clarity* in *Care*,
- u represents the term random error.

Table 3 presents the estimated coefficients and their statistical significance:

Table 3. Coefficients of the Linear Regression Model

Coefficient	Estimate	Standard Error	Value t	P-Value
Intercept	15.5036	1.9289	8.037	< 0.001
Clarity	0.3717	0.0663	5.607	< 0.001

Note. Coefficients with $p < 0.05$ are considered significant.

The estimated coefficients indicate that there is a positive and statistically significant relationship between Clarity and Attention. Specifically, for each additional unit in *Clarity*, the level of *Attention* increases by approximately 0.3717 units. This result suggests that employees who perceive a clearer and more structured organizational environment manage to maintain higher levels of concentration and focus in their work activities.

The adjusted coefficient of determination (adjusted $R^2 = 0.1155$) suggests that approximately 11.55% of the variability in Attention is explained by the variable Clarity, which indicates a significant relationship, although with a moderate influence. This implies that while organizational clarity has a positive impact on care, there are additional factors that also influence employees' ability to focus.

Model Validation

To evaluate the validity of the model, several statistical tests were carried out in order to verify compliance with the fundamental assumptions of the regression:

Table 4. Linear Regression Model Diagnostic Tests

Test	Statistical	P-Value	Decision
GVLMA (Global)	3.2294	0.5202	Acceptable assumptions
Ramsey (RESET)	0.1353	0.8735	Correct Specification
Rainbow	0.8212	0.8550	Confirmed linearity
Durbin-Watson	1.8249	0.0883	No autocorrelation
Breusch-Pagan	0.5167	0.4723	Non-heteroskedasticity

Note. $p < 0.05$ indicates statistical significance.

The results confirm that the model meets the criteria of specification, linearity, normality and absence of autocorrelation, which allows its coefficients to be interpreted with confidence.

Interpretation of the Results

The findings suggest that employees who perceive greater clarity in organizational structure and work procedures tend to have a better attention span in their tasks. This result is consistent with the Theory of Selective Attention (Posner & Petersen, 1990), which postulates that organizational clarity facilitates the activation of attentional mechanisms by reducing ambiguity and providing structured cues that guide cognitive focus.

From the perspective of the Work Demands and Resources Model (Bakker & Demerouti, 2007), these results indicate that clarity in the organizational structure acts as a work resource that reduces cognitive overload and allows for a better distribution of attentional resources. In addition, the Cognitive Load Theory (Sweller, 1988) supports these findings by suggesting that well-structured work environments allow for the optimization of information processing efficiency, facilitating concentration and reducing mental fatigue.

These results have important implications for organizational management, as they suggest that improving clarity in work processes could be an effective strategy to strengthen employee attention and performance. Strategies such as standardizing procedures, using visual tools to structure information, and improving internal communication can help optimize the ability to concentrate and minimize distraction in demanding work environments.

Discussion

The results obtained in this study confirm the existence of a positive and statistically significant relationship between Clarity and Attention in employees within the organizational context. Simple linear regression showed that as clarity levels increase, attention span also increases, suggesting that workers who perceive greater structure and organization in their work environment can concentrate better on their activities. These findings reinforce the idea that the way information is presented and understood at work has a relevant effect on employees' cognitive ability, particularly on their focus and performance on tasks that require sustained attentional effort.

From a theoretical perspective, these results are consistent with the Selective Attention Theory (Posner & Petersen, 1990), which argues that clarity in the organizational environment allows for the efficient activation of attentional mechanisms. When instructions, roles, and procedures are clearly communicated, employees can turn their attention to the most relevant elements of their work without having to invest additional resources in interpreting ambiguous or disorganized information. In this way, clarity acts as a facilitator of attentional regulation, optimizing information processing and reducing cognitive load.

Likewise, the findings are aligned with the Work Demands and Resources Model (Bakker & Demerouti, 2007), which postulates that organizational resources, such as clarity in communication and structured definition of tasks, can reduce the impact of work demands on stress and cognitive fatigue. In this context,

employees who work in environments where procedures and objectives are clearly established experience less uncertainty, allowing them to conserve their cognitive resources and maintain greater stability in their attention span. This result is particularly relevant for organizations that seek to improve the efficiency of their employees through strategies that optimize internal communication and process structuring.

From the Cognitive Load Theory (Sweller, 1988), the relationship between clarity and attention can also be explained in terms of the amount of mental effort needed to process the information available in the work environment. When employees are faced with confusing information or conflicting instructions, their cognitive load increases due to the need to interpret ambiguous data and make decisions without clear guidance. On the other hand, when information is structured in a logical and understandable way, attentional resources can be focused on the execution of specific tasks, improving performance and reducing mental fatigue.

From organizational neuroscience, the relationship between clarity and attention has been associated with the activation of the dorsolateral prefrontal cortex, a region of the brain involved in the regulation of attention and strategic planning (Ridderinkhof et al., 2004). Previous studies have shown that structured environments with clear rules facilitate the processing of information in this region, which contributes to better regulation of attentional effort and less distraction from irrelevant stimuli. These findings reinforce the idea that organizational clarity is not only an administrative factor, but also has a direct impact on employees' cognitive processes.

Comparison with Previous Studies

The results of this study are consistent with previous research that has explored the relationship between organizational clarity and job performance. For example, Ashforth et al. (2008) found that employees who reported greater clarity in the organizational structure of their companies showed better levels of attention and less tendency to make mistakes in tasks that required sustained concentration. Similarly, Sonnentag et al. (2010) indicated that lack of clarity in tasks increases stress levels and reduces the ability to focus on critical activities, which negatively affects organizational efficiency.

Other studies have pointed out that clarity in the work environment can contribute to greater job satisfaction and engagement. Bakker et al. (2014) found that employees who perceived greater structure in their job roles had higher levels of engagement, which in turn translated into better concentration and performance in their daily activities. These findings support the idea that organizational clarity not only has an impact on employees' care, but also influences their motivation and willingness to take on challenges in the work environment.

In addition, research in cognitive ergonomics has suggested that the structure of information at work can have a significant effect on the retention and processing of complex data. Matthews et al. (2000) found that clarity in the presentation of instructions and procedures reduces cognitive overload and allows employees to develop more efficient strategies for maintaining attention in environments of high cognitive demand. In this sense, organizational clarity can be interpreted as a facilitator of information processing, which reinforces the importance of designing effective internal communication systems in organizations.

Implications for Organizational Management

The results obtained in this study have important implications for talent management and the optimization of work performance. The positive relationship between clarity and attention suggests that strengthening organizational structure and communication at work could be an effective strategy for improving employee focus and efficiency. Organizational clarity, by reducing uncertainty and providing a structured framework for decision-making, facilitates the regulation of attentional effort and allows for a more efficient use of available cognitive resources.

Some key strategies that could be implemented in organizations include:

- Standardization of job procedures and roles: Precisely defining the roles and responsibilities of each position can reduce ambiguity and allow employees to direct their attention to priority tasks without unnecessary distractions.
- Implementation of clear and structured communication systems: The use of visual tools and information management technology can help employees better organize their activities and receive instructions more effectively.
- Training in attention management techniques: Developing training programs aimed at improving the ability to concentrate at work can contribute to better performance and a lower tendency to cognitive dispersion.
- Optimization of the design of the work environment: Well-structured organizational spaces, with reduced distracting stimuli and greater accessibility to relevant information, can facilitate attentional regulation and improve efficiency in the performance of tasks.

Conclusions

The present study examined the relationship between Clarity and Attention in the work environment, confirming that there is a positive and statistically significant association between both variables. The results of the simple linear regression indicated that as employees perceive greater clarity in their organizational structure and work processes, their attention span improves, suggesting that the reduction of uncertainty and the presence of structured information facilitate cognitive focus on relevant tasks.

From a theoretical perspective, the findings obtained reinforce the postulates of the Theory of Selective Attention (Posner & Petersen, 1990), which establishes that clarity in the organization acts as a facilitator of information processing by reducing cognitive overload and improving the regulation of attentional resources. Likewise, the Work Demands and Resources Model (Bakker & Demerouti, 2007) argues that organizational clarity can be considered a key work resource that reduces mental fatigue and allows employees to direct their attention to the most relevant tasks within their function.

The findings are also consistent with the Cognitive Load Theory (Sweller, 1988), which postulates that the way in which information is presented and processed has a direct impact on the efficiency with which cognitive resources are used. In this sense, work environments with high levels of clarity reduce ambiguity and favor the optimization of mental effort, allowing employees to maintain their concentration for longer periods and with less cognitive exhaustion.

Practical Implications

The results obtained in this study have important implications for organizational management, as they suggest that clarity in internal communication and in the structuring of work processes is a relevant factor in the optimization of employees' cognitive performance. Based on these findings, it is recommended that organizations implement strategies focused on improving organizational clarity, in order to optimize the attention capacity of their employees. Some of the strategies that could be applied include:

- Design of well-defined work processes and roles: The clear delineation of responsibilities and objectives allows employees to focus on priority tasks, reducing the cognitive load associated with the interpretation of ambiguous information.
- Use of structured information management tools: The implementation of efficient and accessible internal communication systems can contribute to a better organization of information, facilitating the focus of attention on activities with a high impact on productivity.

- Training in attentional regulation strategies: Training in concentration management techniques and distracting control can help employees improve their ability to maintain attention in demanding work environments.
- Optimization of the design of the work environment: Organizational spaces that minimize interruptions and provide access to clear and relevant information can favor the regulation of attention and improve efficiency in the performance of complex tasks.

In conclusion, the findings obtained in this study reinforce the importance of organizational clarity as a factor that influences employees' attention span. The efficient structuring of information and the reduction of ambiguity in work processes can generate significant improvements in cognitive focus, efficiency in the execution of tasks and organizational well-being. From an applied perspective, these results provide empirical evidence on the relevance of optimizing communication and information management in the work environment to enhance worker performance and productivity.

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