Managerial attention and decision-making under time pressure: A buyer's perspective

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ABSTRACT,
Managerial decisions in purchasing often take place under time constraints. This study examines how time pressure influences the relationship between managerial attention and decision-making effectiveness. Specifically, it aims to answer: How does time pressure influence the relationship between managerial attention and decision-making effectiveness? Based on the Attention-Based View and theories of bounded rationality, it was expected that managerial attention would enhance decision quality, but that this effect might weaken under time pressure. A cross-sectional survey was conducted among 52 purchasing professionals across manufacturing and service sectors. Managerial attention, perceived time pressure, and decision-making effectiveness were measured using self-developed scales based on prior literature. The data were analyzed using multiple regression. The results show that higher levels of managerial attention are linked to better decision-making effectiveness. However, the expected moderating effect of time pressure was not confirmed. Although the interaction pattern pointed in the predicted direction, the effect was statistically insignificant. The implications of these findings for research and practice are discussed.

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Managerial attention, decision-making effectiveness, time pressure, bounded rationality, Attention-Based View, managerial cognition

1. INTRODUCTION

Time pressure is a widely experienced and increasingly relevant condition in today's professional environment. For instance, up to 53% of the European workforce report working under time pressure 'often' or 'always' (Eurostat, 2019). Similar observations have been made in the united states, where two-thirds work at high speeds or under tight deadlines (Maestas, 2017). In organizations, time pressure is not just an occasional challenge, it is often a regular part of how decisions are made, especially in situations that need quick action and coordination (Ordonez & Benson III, 1997). While much is known about how time pressure influences individual cognition and stress responses (Maule et al., 2000; Phillips-Wren & Adya, 2020), less is understood about its implications for managerial decision-making in complicated organizational settings, like those found in buyer-supplier interactions.

This is particularly important when we consider that managerial decision-making depends not only on information availability but also on the allocation of attention. According to the Attention-Based View (ABV), organizational outcomes are shaped by what decision-makers pay attention to and how they interpret and make use of that information (Ocasio, 1997). In stable conditions, attention mostly follows established routines, structures, and communication flows (Ocasio & Joseph, 2005). However, in dynamic and uncertain environments, decision-makers often operate under bounded rationality, relying on limited cognitive resources to process large amounts of information (Simon, 1984). Under such conditions, attention becomes both more situational and more critical, especially when decisions must be made quickly and effectively.

Despite its relevance, managerial attention is often conceptualized as a relatively stable or background factor, with limited research examining how it functions under contextual constraints such as limited time. Meanwhile, extensive research in psychology and behavioral decision-making shows that time pressure affects cognitive processing: individuals simplify strategies, narrow their information search, and rely more on heuristics (Gigerenzer & Gaissmaier, 2011; Payne et al., 1996). These changes help conserve cognitive resources but can be particularly harmful in high-stakes situations, where thoughtful and accurate decisions are important (De Dreu, 2003; Maule et al., 2000). This is especially relevant in managerial contexts, where decision-makers must balance cognitive efficiency with strategic accuracy. What is missing in the literature is a clearer picture of how cognitive and emotional processes interact during managerial decision-making, especially under contextual pressures like time constraints. As Cristofaro et al. (2022) argue, the interplay between cognition and affect remains largely underexplored. Although their analysis is not specific to managerial settings, this gap is particularly relevant in contexts where attention is central to effective decision-making.

The aim of this paper is to examine how time pressure influences the relationship between managerial attention and decision-making effectiveness. The goal is to better understand whether time pressure changes how attention contributes to the effectiveness of decisions. Rather than studying time pressure and attention separately, the paper looks at how these elements interact in a supply chain context. To reach this objective, the following research question has been formulated:

How does time pressure influence the relationship between managerial attention and decision-making effectiveness?

This question is addressed through a cross-sectional survey among 52 purchasing professionals from manufacturing and service sectors. Using multiple regression analysis, this study tested the hypothesized relationships between managerial attention, time pressure, and decision-making effectiveness. The results reveal a positive and significant effect of managerial attention on decision-making effectiveness, providing empirical support for the assumption that allocating attention to a decision contributes to its effectiveness.

This study contributes to the literature in four ways. First, it responds to a call to better understand how managerial attention works under contextual conditions like time pressure (Ocasio, 2011). The ABV traditionally emphasized routine-driven attention patterns (Ocasio, 1997), but this study aligns with newer views that highlight attention as dynamic and situational (Nadkarni & Barr, 2008; Ocasio, 2011; Ocasio et al., 2018; Vuori & Huy, 2016). Second, it connects the attention literature with research on decision-making effectiveness. While much is known about how time pressure affects speed and heuristics (Gigerenzer & Gaissmaier, 2011; Payne et al., 1996), there is limited insight into how attention connects time pressure to decision-making effectiveness. Third, this study adds a cognitive perspective to behavioral supply chain research. Prior work focused on behavior and relationships under time pressure (Fugate et al., 2012), but this study examines individual cognition in buyer-supplier decisions. It fills a gap by applying attentional theory to supply chains, an area less studied than structural models (Tokar, 2010). Fourth, although time pressure remains a central focus in fields like marketing, medicine, and software engineering (ALQahtani et al., 2016; Kuutila et al., 2020; Reutskaja et al., 2011), recent research rarely addresses it in complex managerial contexts. This study contributes by examining how perceived time pressure affects attention allocation in such settings.

Finally, the findings offer practical insights: purchasing environments are complex and dynamic, where time constraints and changing information can challenge rational decision-making (Kaufmann et al., 2012). Forecasting can reduce pressure by anticipating disruptions (Mohammed & Mandal, 2023), strong supplier relationships support responsiveness, and decision support systems can help maintain attentional focus under pressure (Phillips-Wren & Adya, 2020).

In the following, current literature on time pressure, bounded rationality, managerial attention and decision-making effectiveness is reviewed. Based on these theoretical foundations, the hypotheses are developed. The next section describes the methodology, including the research design, sample and measurement approach. Then, the main findings of the regression analysis are presented. The paper concludes with a discussion of theoretical contributions, managerial implications, limitations, and directions for future research.

2. THEORETICAL BACKGROUND

2.1 Time pressure and bounded rationality

Time pressure has often been defined as a simple time constraint, where an individual has a set amount of time to complete a task (Maule & Svenson, 2013). However, time constraints are present whenever a deadline exists, even if there is theoretically enough time to complete the task. Time pressure can therefore be described as a more severe form of time constraint that triggers stress and the fear of negative consequences for missing a deadline (Iyer, 1989). It arises when there is a perception of insufficient time to complete a task, and the expectation of negative consequences for missing a deadline leads to feelings of stress and a need to manage the time constraint (Ordonez & Benson III, 1997). Time pressure is not a fixed condition but a personal feeling that depends on the situation and how someone interprets it. For instance, Having many options for optional

activities can alone create feelings of time pressure, time deprivation and perceived shortage of time. A study by Ackerman and Gross (2003) found that people reported the lowest levels of time pressure and time deprivation when thinking about tasks they had to do and did not enjoy. This illustrates that perceived time pressure depends not just on time availability, but also on how activities are mentally framed.

The study of time pressure originated in the field of psychology (Woodworth, 1899), but has also extended to other domains such as human factors (Kerstholt, 1994), health care (Tsiga et al., 2013), technology (Kuutila et al., 2020) and organizational behavior (Zhang et al., 2023), highlighting its widely recognized importance. Thomas et al. (2014) suggest that this research can be broadly divided into two categories: outcomes, which describe how time pressure affects individuals and organizations, and coping, which looks at how people respond to and manage time constraints.

Although a few studies highlight positive effects of time pressure, such as increased efficiency (Kerstholt, 1994) and temporary energizing effects (Carnevale & Lawler, 1986), most research show its downsides. It increases cognitive demands (Payne et al., 1996), reduces cognitive control (Rothstein, 1986) and raises stress and anxiety levels (Maule & Hockey, 1993; Maule et al., 2000), all of which can use up mental resources and impact how decisions are made. Over time, these effects can hurt emotional well-being (Gärling et al., 2016), which may make it more difficult to stay focused or process information with care and attention.

In order to deal with time pressure individuals frequently use coping strategies. Two common approaches are accelerated processing, making quicker but less thorough decisions, and risk aversion, prioritizing risk minimization over potential gains (De Dreu, 2003; Maule & Mackie, 1990; Zur & Breznitz, 1981). These coping strategies help people deal with perceived urgency, but they often come at the cost of accuracy (Van Maanen et al., 2019) and depth of decisions. For example, under pressure people tend to generate fewer alternatives, consider fewer consequences (Mann & Tan, 1993) and rely on suboptimal decision strategies (Kerstholt, 1994).

These cognitive effects under time pressure are related to the concept of bounded rationality, introduced by (Simon, 1984). This perspective challenges the assumption of fully rational decision-making by emphasizing that individuals have limitations to cognitive capacity. When decision-makers are faced with complex or information-rich environments, they are often unable to evaluate all possible options in a fully rational manner (Orquin & Loose, 2013). Instead, they construct simplified versions of the decision problem by selecting only certain pieces of information to focus on. This selection process is guided by decision strategies or heuristics: mental shortcuts that help reduce effort during decision-making (Gigerenzer & Gaissmaier, 2011).

Various types of heuristics have been identified, including the lexicographic, elimination by aspect, take the best rules, the priority heuristic and the recognition heuristic (Orquin & Loose, 2013). Research shows that the way individuals apply heuristics is closely tied to how they acquire and process information. For instance, when using a lexicographic heuristic, decision-makers first attend to the most important attribute across all alternatives, and only if no option stands out, proceed to the next attribute (Fishburn, 1974). Interestingly, research has shown that heuristics can sometimes outperform fully rational models, especially in decision tasks performed under time pressure (Gigerenzer & Goldstein, 1996; Payne et al., 1988). This suggests that heuristic strategies are not always less effective, but that their performance depends on the context.

Recent studies have provided new insights into how time pressure affects managerial behavior and decision-making. For example, studies have shown that under time pressure, individuals process information more briefly and selectively, which can strengthen framing effects (Roberts et al., 2022) (Suri & Gross, 2022). Others highlight that under time pressure, people change what information they prioritize depending on the situation (Teoh & Hutcherson, 2022). Also, Wu et al. (2022) found that time pressure can reduce exploration under uncertainty, as individuals become less inclined to consider unfamiliar or ambiguous options when pressured to decide quickly. These findings suggest that time pressure not only reduces available cognitive capacity, but also shapes how decision-relevant information is selected and processed. Studies have also shown that under time pressure, individuals tend to narrow their focus to what feels urgent, often at the expense of more strategically important issues (Dutton et al., 2001; Ocasio, 2011).

While these findings contribute to a growing understanding of how time pressure changes cognitive processing, research still has to explore how these effects play out in specific organizational contexts. Most existing research has focused on individual decision-making in controlled environments or general organizational settings, while the effects of time pressure within the supply chain context has received far less attention. This is surprising, given that decision-making under time constraints is highly relevant in buyer-supplier relationships (Fugate et al., 2012). These complex environments often involve much coordination, quick tradeoffs and decisions that carry significant operational consequences (Brunaud & Grossmann, 2017; Olson & Swenseth, 2014; Sherman, 2020). This paper contributes to the line of research by investigating the role of time pressure in this supply chain context.

2.2 Managerial attention and decision-making

Managerial attention in organizations is a scarce resource, due to the cognitive limitations that reduce human information processing. The Attention-Based View (ABV) argues that firm behavior is shaped by how organizations direct and allocate the attention of their decision-makers (Ocasio, 1997). What decision-makers do is shaped by what they pay attention to, for example the problems and possible solutions. What they focus on, depends on the situation and on how the organization's structure (its rules, resources, and relationships) directs certain issues and people into specific communications and procedures. This shapes which information is considered relevant within the specific context of the organization (Kammerlander & Ganter, 2015). Understanding managerial attention is therefore crucial, because it has a significant influence on decision maker’s behavior (Ocasio, 2011). Research shows that how managers direct their attention is important for recognizing and responding to uncertain or unexpected changes in the environment (Mack et al., 2024). This happens through focusing attention on what seems relevant in that specific situation (Ocasio, 1997) and this has an impact on what issues to involve in strategy formulation on how resources should be allocated (Ocasio & Joseph, 2005).

Situated attention is a concept within the ABV that refers to how managerial attention is shaped by immediate, real-time contextual factors rather than only by structural routines. Traditional ABV research emphasized how organizational structures and communication channels guide attention (Ocasio, 1997; Ocasio & Joseph, 2005), but situated attention highlights the flexibility of attention in reaction to emergent demands.

These include environmental shifts, emotional stimuli, and situational demands that require rapid focus adjustment (Ocasio, 2011; Vuori & Huy, 2016). This perspective highlights that managerial attention is not fixed, but constantly shifts in response to shifting demands in the work environment.

Building on the foundational ideas of the ABV, recent research has shifted focus to the dynamic and context-sensitive nature of managerial attention. Rather than being static, attention is increasingly understood as responsive to situational factors, depending on both external circumstances and the way managers interpret them. For example, Ocasio et al. (2018) describe how attention evolves through communication and social interaction, showing how organizational conversations help shift managers' focus when strategic priorities change. Nadkarni & Barr (2008) emphasize the role of managerial cognition in interpreting these shifting priorities, which in turn shapes the formulation and implementation of strategic responses. This also highlights the need to better understand managerial attention at the individual level, where cognitive and emotional processes shape how attention is allocated. This is particularly relevant for decision-making processes. A systematic review by Cristofaro et al. (2022) shows that affective states such as emotions and moods play a significant role in how managers process information and make decisions. Similarly, Shih et al. (2025) highlight that cognitive control involves the regulation of thoughts and actions to support goal-directed behavior. These processes are crucial for decision-making, as they help individuals manage attention, inhibit impulses, and respond flexibly to new information. These abilities become particularly important when decisions must be made under conditions of uncertainty.

While managerial attention has received substantial attention in the literature, most studies emphasize structural and organizational-level mechanisms. In more recent years, scholars have begun to explore the emotional, cognitive and situational aspects of attention (Cristofaro et al., 2022; Shih et al., 2025). Although some studies examine cognitive processes in the context of strategic decision-making or behavioral strategy (Cristofaro et al., 2022; Nadkarni & Barr, 2008), these often do not specifically focus on managerial attention. As a result, the cognitive foundations of managerial attention, especially at the individual level, remain relatively underexplored. This clearly shows up in empirical research that aims to understand how individual managers deal with complex decision-making situations.

3. HYPOTHESES

According to the ABV, organizational outcomes are shaped by how managerial attention is distributed across competing issues and alternatives (Ocasio, 1997). Understanding the effect of managerial attention on decision-making effectiveness requires acknowledging that decision-makers operate under cognitive limitations. People are boundedly rational and given these limits of human cognitive capacity, attention becomes a key mechanism that determines what decision-makers notice, interpret, and act upon (Kammerlander & Ganter, 2015). So, attention is not just a filter that selects information. It actively shapes the structure of the decision-making process itself by influencing which information is gathered, how issues are interpreted, and which options are seriously considered (Mack et al., 2024; Ocasio, 1997; Ocasio & Joseph, 2005).

Within this bounded rationality framework, individuals often rely on heuristics: simple decision strategies that reduce effort by narrowing the scope of information they process (Gigerenzer & Gaissmaier, 2011). The heuristic a decision-maker uses is closely linked to what they pay attention to, meaning that attention not only enables decision-making, but also influences how decisions are structured and how much information is taken into account (Orquin & Loose, 2013). Hence, managerial attention can be seen as a core determinant of the quality and structure of decision-making. When attention is selectively allocated to the most relevant and high-priority issues, it increases the likelihood that decisions are based on sufficient, timely, and strategically aligned information. So, good decision-making processes contribute to higher decision-making effectiveness (Dean Jr & Sharfman, 1996; Elbanna & Child, 2007). It can, thus, be proposed that:

H1: Managerial attention has a positive effect on decision-making effectiveness.

While managerial attention supports structured, well-informed decision processes, the effect of that attention is not constant, it depends on the context in which decisions are made (Schmitt, 2016). According to the ABV, attention is shaped not only by structural routines but also by situational demands (Ocasio, 2011) such as time pressure. In high-pressure environments, this is referred to as situated attention: managers adapt their focus to what feels most urgent or emotionally pressing (Vuori & Huy, 2016). Time pressure can act as a situational trigger that leads to these reactive shifts in attention.

Managerial attention actively shapes the decision-making process by influencing what information is gathered, how issues are interpreted, and which alternatives are seriously considered (Mack et al., 2024; Ocasio, 1997; Ocasio & Joseph, 2005). To turn managerial attention into effective decisions, certain cognitive capacities must be available. Managers need sufficient mental space to process and integrate information, compare options and think beyond the immediate task. Without these abilities, attention is more likely to result in reactive decisions than in well-founded strategic choices.

Time pressure is often perceived as a psychological demand, leading to stress when individuals feel there is insufficient time to process information properly (De Dreu, 2003). This stress has important consequences for how attention functions during decision-making. Stress affects the prefrontal cortex, which is responsible for goal-directed attention and thoughtful thinking (Arnsten, 2009). As a result, attention narrows and becomes more reactive and emotionally driven. At the same time, mental energy is used to deal with the stress, which means there is less room left for structured and deliberate thinking (Phillips-Wren & Adya, 2020). In these moments, managers are more likely to fall back on quick reactions or familiar routines, even if the situation asks for more careful consideration.

These cognitive limitations influence how individuals process information under time pressure. When facing limited time, people tend to narrow their attention, reduce information search, and consider fewer alternatives (De Dreu, 2003; Mann & Tan, 1993; Maule et al., 2000; Payne et al., 1996). They are also less likely to explore unfamiliar or uncertain options (Wu et al., 2022). Even if decision makers try to think rationally under time pressure, the situation often makes this difficult. The mental load and urgency can cause them to fall back on quick routines or simplified strategies rather than carefully weighing their options (Phillips-Wren & Adya, 2020). As a result, it becomes more difficult to use attention in a way that improves decision quality.

The effects of time pressure are also reinforced by physiological stress responses. When people feel stressed, corticosteroids are released that can interfere with short-term memory (De Quervain et al., 2000). At the same time, a heavy workload can overwhelm the working memory system (Smith et al., 2004). So even if managers are paying attention, it becomes harder to use that

attention in a thoughtful and structured way. Attention shifts toward what feels urgent, not what is most important (Ocasio, 2011), which increases the chance that decisions focus on short-term fixes instead of long-term solutions.

Finally, attention and decision strategies are connected. Simple decision rules, such as focusing on just one key attribute (Fishburn, 1974) or choosing the first acceptable option (Simon, 1956), depend on how attention is allocated. Under time pressure, people process information differently and focus on different aspects of a decision (Payne et al., 1988), which changes how such strategies are applied. Research shows that time pressure can increase reliance on heuristics (Hilbig et al., 2012). In some situations, heuristics can lead to faster and even more accurate decisions than more thorough approaches (Gigerenzer & Gaissmaier, 2011). However, when they are used out of necessity rather than choice, they may not always lead to well-considered outcomes. Although attention plays a key role in decision-making, the benefits it normally brings may be harder to realize when decisions must be made under time pressure.

H2: Time pressure has a negative effect on the relationship between managerial attention and decision-making effectiveness.

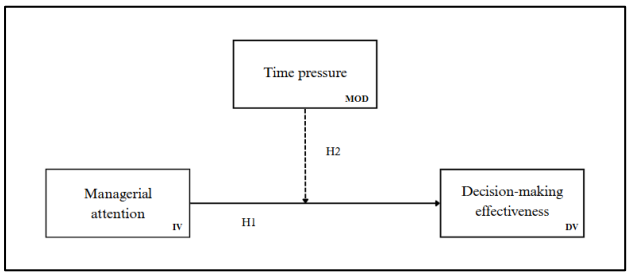


Figure 1 - Conceptual model

4. METHODOLOGY

This study used a quantitative, cross-sectional research design. This design fitted the research question well, as it allowed for testing relationships between variables at a specific point in time. Setia (2016) emphasized that cross-sectional designs were well-suited for research with practical time and resource constraints, making this approach particularly fitting for the current study. A structured online questionnaire was developed and distributed as part of a broader data collection effort conducted in collaboration with three other colleagues working on related topics. The questionnaire included a combination of questions from different researchers, each focusing on their own research topic. We collaborated on designing the survey and identifying potential respondents; however, each researcher was responsible for their own theoretical framework and data analysis. This shared effort helped maximize response rates and broaden the reach of the survey. The obtained data were used to test the significance of relationships between variables through statistical analysis.

4.1 Sample and data collection

The target group for this study was individuals who interacted with their suppliers at least on a weekly basis. The sample included respondents from both the goods and services sectors to ensure a broad and diverse range of perspectives. In total, 52 respondents participated in the study, of whom 59.6% worked in the manufacturing sector and 40.4% in the services sector. All participants held purchasing-related roles. Table 1 shows the distribution of respondents across age, experience in current function and sector.

Data were collected in May 2025 and were distributed in the English language. To maximize the number of responses, the research team used personal networks, contacted companies by phone and visited them when necessary. At least one reminder was sent to encourage participation. To reduce the risk of socially desirable bias, the introduction page of the questionnaire stated that individual answers would remain confidential and would not be shared with any third party. Additionally, it was emphasized that all data would be used exclusively for academic purposes. This procedure aligns with Pulles et al. (2016).

Table 1 - Socio-demographic characteristics

		Frequency	Percentage
Age			
	<25	2	3.8
	25–29	3	5.8
	30–34	3	5.8
	35–39	7	13.5
	40–49	9	17.3
	50+	28	53.8
Experience in current function			
	0–5 years	11	21.2
	6–10 years	21	40.4
	11–15 years	5	9.6
	16–25 years	10	19.2
	25+ years	5	9.6
Sector			
	Manufacturing	31	59.6
	Service	21	40.4

4.2 Method

A survey is a suitable method because it allows for the systematic collection of data from a larger group of respondents in a clear and structured way (Saunders et al., 2009). The use of standardized questions helped ensure that everyone interpreted the questions in a similar manner, which improved the consistency and comparability of the answers. In this study, all variables were measured on a seven-point Likert scale going from 1 (Strongly disagree) to 7 (Strongly agree).

The construct of decision-making effectiveness was measured using five items adapted from Dean & Sharfman (1996), capturing the extent to which strategic decisions achieve their intended objectives. The items reflect core dimensions of effectiveness, such as goal alignment, implementation success, and informed decision-making. Time pressure was measured using four items derived from prior research on decision-making under constraints, which finds that limited time leads to faster, less deliberate processing (De Dreu, 2003; Maule et al., 2000; Ordonez & Benson III, 1997). These items capture the perceived urgency and time limitations experienced by decision-makers. Managerial attention was measured using three items adapted from Ocasio (1997), focusing on strategic prioritization and responsiveness. The items illustrate that attention is not equally distributed across all issues, but rather directed to what is perceived as most urgent or strategically impactful in the specific situation. Table 2 provides an overview of the items, their

Table 2 - Measurement items

Items	Sources	α	r̄
Dependent variable			
Decision-making effectiveness		0.45	0.17
1. The outcomes of my strategic decisions typically align with the goals I set.	(Dean Jr & Sharfman, 1996)		
2. The decisions I make are usually implemented successfully within my area of responsibility.	(Dean Jr & Sharfman, 1996)		
3. The decisions I make tend to contribute to the overall direction of my team or department.	(Dean Jr & Sharfman, 1996)		
4. My decisions are based on a comprehensive analysis of relevant information and can be considered well-informed.	(Dean Jr & Sharfman, 1996)		
Independent variables			
Time pressure		0.70	0.37
1. When making decisions at work, there is often not enough time to consider all relevant information.	(Maule et al., 2000)		
2. Important decisions often have to be made under tight deadlines.	(Ordonez & Benson III, 1997)		
3. The time available for making decisions is usually shorter than what would be ideal.	(De Dreu, 2003)		
4. Time constraints often require making decisions faster than feels comfortable.	(De Dreu, 2003)		
Managerial attention		0.57	0.40
1. I prioritize my attention based on what is most strategically important at the time.	(Ocasio, 1997)		
2. (I quickly shift my focus when new, urgent issues arise.)	*(Ocasio, 1997)*		
3. I focus most on the areas where I believe my input has the most strategic impact.	(Ocasio, 1997)		

Note. α = Cronbach's alpha, r̄ = average inter-item correlation. Item 2 of Managerial Attention was removed due to low item–total correlation.

corresponding sources, and the reliability statistics per construct. The full list of survey questions is included in Appendix 8.1.

4.2.1 Scale reliability

To assess the internal consistency of each construct, reliability analyses were conducted using Cronbach's alpha and average inter-item correlation. Internal consistency is considered acceptable when Cronbach's alpha exceeds 0.70 (Nunnally & Bernstein, 1978). For broad constructs, average inter-item correlations between 0.15 and 0.50 are considered adequate (Clark & Watson, 1995).

For *decision-making effectiveness*, the final scale consisted of four items. The internal consistency was relatively low, with a Cronbach's alpha of 0.45. The average inter-item correlation was 0.17, which falls within the acceptable range for broad constructs. Item-deletion analysis showed that removing individual items did not substantially increase alpha, suggesting that no single item caused the low reliability. Given the limited number of items and the theoretical relevance of the construct, the scale was retained. The *time pressure* scale showed reliability above the threshold with a Cronbach's alpha of 0.70 and an average inter-item correlation of 0.37. Deleting any item reduced internal consistency, supporting the inclusion of all four items. The *managerial attention* scale initially included three items, but internal consistency was low (α = 0.33). After removing one item, the final two-item scale achieved an improved alpha of 0.57. The average inter-item correlation between the two retained items was 0.40, indicating acceptable internal consistency.

4.2.2 Control variables

To ensure the validity of the findings and to account for variables that may independently affect the outcome, relevant control variables were included in the analysis. A literature review conducted by Mahaputra (2022) demonstrated that *experience* influences decision-making, making it a relevant factor to control for this study. Moreover, *age* was included as a control variable because studies have shown that aging affects decision-making in complex ways (Bruine de Bruin et al., 2012). While cognitive decline can negatively impact certain decision skills, other skills may benefit from experience and thus remain stable or improve with age. The *type of industry* (service or goods) can also influence decision-making effectiveness by shaping the time conditions under which decisions are made. In service organizations, the intangible nature of outputs and the limited buffering capacity require buyers to respond more quickly to supplier issues. These conditions increase time pressure, which may affect how decisions are made and how effective they are. Due to limitations in time and scope, other control variables were not included.

Table 3 - Data cleaning steps

Step	Description
1	The questionnaire was distributed to 72 individuals.
2	A total of 58 completed responses were collected.
3	The raw dataset was first imported into Excel for initial cleaning.
4	Columns containing irrelevant information (e.g., completion duration, personal information, or input from other researchers) were excluded.
5	Only participants who agreed to the consent statement were retained.
6	This resulted in 53 usable responses.
7	Text-based responses for age and experience (e.g., '51 years') were converted to numeric format.
8	Responses like '10+ years' were simplified by converting them into their lowest stated value (e.g., '10').
9	Responses to the sector question were recoded into a dummy variable (1 = manufacturing, 0 = service).
10	Cases with missing values on one or more main variables were excluded. For the control variables, missing values were replaced with the most frequently occurring value (mode).
11	The final dataset used for analysis consisted of 52 observations.

Note. Dummy coding details are provided in Appendix 8.3.

4.3 Data analysis

Before starting the analysis, the data were checked and cleaned for further processing. The specific steps involved in preparing the final sample are outlined in Table 3. The cleaned dataset was imported into R (version 4.5.0). Descriptive statistics and reliability analyses were conducted first. Internal consistency of each scale was assessed using Cronbach's alpha. One item from the managerial attention scale was removed due to a near-zero item-total correlation. Next, variance inflation factors (VIFs) were calculated to assess potential multicollinearity. Correlation analyses were performed to examine the relationships between the variables, including means, standard deviations, and alpha values for each scale.

Three hierarchical regression models were estimated to test the hypotheses. This stepwise approach allowed for evaluating the added value of each set of predictors. The models included control variables (age, experience in current function and sector), the main independent variables (managerial attention and time pressure), and an interaction term (managerial attention * time pressure). An interaction plot was created based on the predicted values of the final model to visualize the moderating effect.

Table 4 - Correlation table

Variable	Mean	SD	1	2	3	4	5	6
1. Effectiveness	5.870192	0.483782	-					
2. Time pressure	4.384615	1.110844	-0.12	-				
3. Attention	5.269231	1.117865	0.32	-0.01	-			
4. Age	46.40385	10.84518	-0.08	-0.15	-0.04	-		
5. Experience	12.57692	8.927477	-0.06	-0.07	0.17	0.6	-	
6. Sector	0.596154	0.495454	0.12	-0.21	-0.01	-0.17	-0.35	-

5. RESULTS

5.1 Correlation

Table 4 presents the bivariate correlations between the variables. Multicollinearity is not a concern, as all GVIF values remained well below the threshold of 5 (Alauddin & Nghiem, 2010). The full collinearity statistics can be found in Appendix 8.2.

5.2 Hypotheses testing

Multiple linear regression analyses were conducted with decision-making effectiveness as the dependent variable. Table 5 displays the regression results, including unstandardized coefficients and associated p-values, for the three estimated models. In Model 1, only control variables were included. Model 2 added the independent variables: managerial attention and time pressure. Model 3 included the interaction term.

Hypothesis 1 proposed that managerial attention has a positive effect on decision-making effectiveness. In Model 2, which included both independent variables and controls, the coefficient for managerial attention was positive and statistically significant ($B = 0.15$, $p = 0.021$). This result provides support for Hypothesis 1, indicating that higher levels of attention are associated with increased decision-making effectiveness.

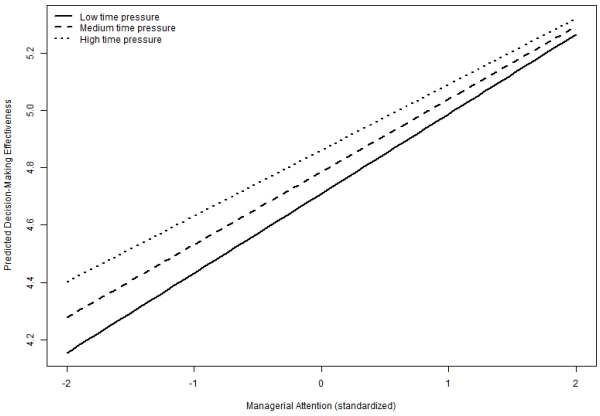
Hypothesis 2 stated that time pressure moderates the relationship between attention and effectiveness. To test this, an interaction term was added in Model 3. The coefficient for the interaction term was negative, as expected (B = –0.02), but not statistically significant (p = 0.625). Thus, Hypothesis 2 is not supported by the data.

Table 5 - Regression analysis

	Model 1 Controls	Model 2 + IVs	Model 3 + Moderator
(Intercept)	5.934***	5.365***	4.779***
	(<0.001)	(<0.001)	(<0.001)
Age	-0.003	-0.001	-0.000
	(0.673)	(0.924)	(0.993)
Experience	0.002	-0.005	-0.005
	(0.864)	(0.649)	(0.627)
Sector	0.120	0.070	0.073
	(0.425)	(0.637)	(0.626)
Managerial attention		0.146*	0.254
		(0.021)	(0.270)
Time pressure		-0.048	0.076
		(0.440)	(0.772)
Managerial attention * Time pressure			-0.024
			(0.625)
Num.Obs.	52	52	52
R2	0.019	0.138	0.143
R2 Adj.	-0.042	0.045	0.029

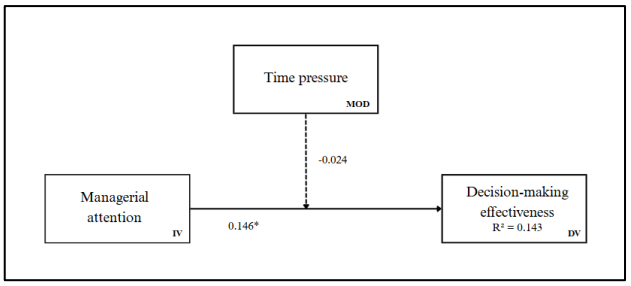
Note. Unstandardized regression coefficients are reported. p-values are shown in parentheses.+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Figure 2 illustrates the interaction between managerial attention and time pressure in predicting decision-making effectiveness. The figure shows that attention is positively associated with effectiveness across all levels of time pressure. The slope becomes slightly steeper under conditions of high time pressure (dotted line), suggesting that the effect of attention may be slightly stronger when decision-makers operate under tighter temporal constraints. While the interaction term in Model 3 was not statistically significant, the plotted pattern still aligns with the expected direction of the moderation effect (see figure 3).



Note. Predicted values plotted at -1 SD (low), mean (medium), and +1 SD (high) of time pressure.

Figure 2 - Moderation plot



Note. * p < 0.05

Figure 3 - Structural model

6. DISCUSSION

This study investigated how time pressure influences the relationship between managerial attention and decision-making effectiveness in buyer-supplier settings. While earlier research emphasized that attention guides strategic behavior (Ocasio, 1997) and time pressure can disrupt cognitive processes (De Dreu, 2003), the combined effect of both had not yet been empirically tested in a purchasing context. The results show that managerial attention has a positive effect on decision-making effectiveness, in line with theoretical expectations. This supports the idea that focused managerial attention improves decision-making effectiveness. As for the moderating role of time pressure, no significant effect was found. While the interaction plot suggested a potential pattern, no clear interaction effect could be confirmed. Taken together, these findings partially answer the research question. Attention appears to contribute meaningfully to decision-making effectiveness, but the influence of time pressure remains inconclusive based on this study.

6.1 Implications for Literature

This study contributes to the literature in four ways. First, this study responds to the need for a better understanding of how managerial attention functions under contextual pressures (Ocasio, 2011). While the ABV has typically focused on structural and routine-driven attention allocation (Ocasio, 1997), more recent literature highlights that attention is also shaped by situational triggers such as urgency or time constraints (Ocasio, 2011; Ocasio et al., 2018; Vuori & Huy, 2016). This study supports those ideas by offering empirical evidence that managerial attention positively affects decision-making

effectiveness. It also connects to recent work emphasizing the role of attentional focus in dynamic and uncertain decision environments (Mack et al., 2024).

Second, the study brings new insights to research on decision-making under time pressure. Prior work found that time pressure reduces cognitive processing and increases reliance on heuristics (Gigerenzer & Gaissmaier, 2011; Maule et al., 2000; Payne et al., 1996). These studies have generally focused on outcomes like decision speed or shortcut use. This study contributes by examining how managerial attention under time pressure relates to decision-making effectiveness, a link that is less frequently examined in field settings compared to lab-based studies focused on speed or heuristic use (Phillips-Wren & Adya, 2020).

The lack of a significant moderating effect of time pressure may indicate that findings from comparable studies, often conducted in experimental or simplified settings, do not always translate to complex managerial contexts. Under time pressure, individuals are known to process information differently: they search less extensively, consider fewer alternatives, and rely more on heuristics (Mann & Tan, 1993; Maule et al., 2000; Payne et al., 1996). It is possible that the managers in this study adopted decision strategies as a way to maintain decision quality despite limited time. These heuristics may have helped mitigate the expected negative effects of time pressure, such as increased stress (De Dreu, 2003) or reduced information processing (Maule et al., 2000), which may have reduced its moderating impact. This interpretation reflects Gigerenzer and Gaissmaier's (2011) observation that, in environments with limited time or information, simple heuristics can be effective and even outperform complex strategies under certain conditions.

Third, the findings contribute to behavioral supply chain research by introducing a cognitive lens to purchasing decisions. Prior studies have examined behavioral responses to time pressure in supply chain relationships (Fugate et al., 2012), focusing on observable behavior and relational dynamics. This study adds by focusing on internal cognitive processes. Although research has also explored time pressure and decision-making in general management contexts (Karau & Kelly, 1992; Ordonez & Benson III, 1997), the buyer-supplier context has received little attention. This study responds to that gap by applying attentional theory within supply chain settings. It highlights how individual cognitive processes influence decision-making, which has been less explored compared to structural models (Tokar, 2010).

Fourth, while time pressure is a well-established concept in psychology and decision-making research (Gigerenzer & Gaissmaier, 2011; Maule et al., 2000), recent studies in applied management contexts rarely treat it as a primary focus. This may be due to the continued reliance on classical foundations (Maule et al., 2000; Payne et al., 1996). However, in several other disciplines, time pressure remains a central focus in fields such as marketing, medicine, and software engineering, where researchers examine its influence on consumer choices, diagnostic performance, and software quality and productivity (ALQahtani et al., 2016; Kuutila et al., 2020; Reutskaja et al., 2011). This may be because these settings often allow for short, structured, and repeatable tasks, which make experimental manipulation or observational measurement of time pressure more feasible.

Managerial decision-making, by contrast, often involves multiple interdependent steps, long time horizons, and organizational dynamics that are less easily standardized or isolated for empirical study. Perceived time pressure in these contexts is harder to isolate and standardize, making it less attractive for empirical study. As a result, while its practical relevance is broadly acknowledged, the cognitive and attentional mechanisms through which time pressure affects managerial behavior remain underexplored. This study contributes by examining time pressure in a complex managerial setting, extending the focus beyond controlled or simplified environments.

6.2 Managerial implications

This study offers important insights for managers involved in strategic decision-making in high-pressure situations. This is especially relevant in purchasing and supply chain contexts, where professionals often face tight deadlines and complex information (Kaufmann et al., 2012).

An important area where time pressure becomes visible is in the coordination of supply and production flows. Time-sensitive processes such as supply allocation and production planning must therefore be managed carefully. As input for this section, I discussed the findings with a 61-year-old purchasing manager who has 15 years of managerial experience in manufacturing. He explained, "forecasting can help reduce time pressure by anticipating disruptions before they escalate into urgent problems." Supply disruptions are common, and when they occur, the supplier must divide limited raw materials among customers. In such cases, allocation decisions are often based on prior demand visibility. Buyers who share forecasts are considered more reliable, which facilitates coordination and reduces the likelihood of last-minute decisions. Delays in deliveries can force buyers to rapidly adjust production, find alternatives, or update customers, all under time pressure. In this way, forecasting serves not only as a planning tool but also as a method to reduce reactive decision-making under pressure (Albarune & Habib, 2015; Mohammed & Mandal, 2023).

The professional also emphasized that forecasting alone is not enough to manage time pressure. "Maintaining strong supplier relationships can be equally important." In his experience, when sudden requests arise under pressure, a supplier's willingness to respond often depends on the quality of the relationship. Buyers who communicate consistently, provide demand visibility, and treat suppliers as long-term partners are more likely to be seen as preferred customers. In cases of material shortages, such buyers are prioritized in allocation decisions. This kind of relational capital can help buyers avoid being left out and increase the chances of timely support.

Another important consideration is that organizations should invest in managerial training that strengthens attentional control under time pressure. Under such conditions, managers are more likely to rely on simple rules of thumb or instinctive choices rather than reflective thinking, which can result in inconsistent or suboptimal outcomes (Gigerenzer & Gaissmaier, 2011). Training programs should therefore include strategies to recognize these patterns and support decision-making under pressure. This includes the use of structured routines and digital tools that help managers stay focused and avoid cognitive overload (Phillips-Wren & Adya, 2020).

In addition to individual attentional strategies, internal preparedness plays a key role in enabling fast and effective decision-making under pressure. This point was reinforced by the conversation with the purchasing professional, who emphasized the importance of having relevant information gathered and analyzed in advance. He explained, "everything I already know, I make sure is ready, collected, and if possible, already analyzed, so that a decision can be made immediately" He also stressed that clearly defined mandates, approval flows, and stakeholder roles allow managers to act quickly while staying within organizational procedures. When decisions fall within a buyer's

mandate, they can proceed without delay. Conversely, administrative inefficiencies or unclear procedures often slow down action. In time-pressured situations, such as near deadlines, involving other internal stakeholders early can reduce stress and distribute responsibility more evenly. Stakeholder management is not only essential for gaining approval, but also for ensuring that all necessary internal steps are aligned in time. This helps prevent escalation and avoids unnecessary delays. Taken together, these practices can help purchasing professionals act more decisively and effectively when timelines are tight and complexity is high.

6.3 Limitations and future research

This study has a few limitations that may have influenced the results. First, some of the key constructs were measured with only a few items, which makes them less reliable. For example, the scale for decision-making effectiveness had a Cronbach's alpha of only 0.45, and managerial attention scored just 0.57 after removing one item. These values are far below the commonly accepted threshold of 0.70 (Nunnally & Bernstein, 1978), so the constructs may not have been captured accurately. In addition, almost everyone rated themselves relatively high on decision-making effectiveness, which led to little variation in the answers. This ceiling effect reduces the ability to detect meaningful differences (Wang et al., 2008). As a result, the effect of attention and time pressure on decision-making may have been underestimated. One respondent also indicated difficulty with terms like "often" in certain items. They explained that a situation might occur occasionally, but not frequently enough to justify agreement, leading them to select "Disagree" even when the situation was present. This suggests that some disagreement responses may reflect low frequency rather than complete absence, which could have reduced variation in the data and made it harder to see certain patterns. Future research could develop more complete and detailed scales and test them with factor analysis to make sure they measure what they're supposed to.

Second, there are indications of response bias and potential social desirability effects. The survey, which was part of a longer combined questionnaire, may have induced fatigue, leading some respondents to complete it quickly or without full attention. Moreover, because all constructs were measured using self-reported Likert-type items, participants may have overstated their attentional capacity or decision effectiveness in an effort to present themselves more positively (Krumpal, 2013). This concern may be particularly relevant for the measurement of time pressure. In retrospective survey settings, time pressure is often rated at a distance from the moment in which the pressure was actually experienced. As a result, the perception of urgency may have become diluted, making it more difficult to capture the full intensity of the experience. Future research could ask participants to briefly log their experiences of time pressure during the workday, using a digital or paper-based diary. This would allow them to report their experiences shortly after they occur, reducing the chance that important details are lost or distorted in hindsight.

Third, the sample size was relatively small, because of the specific target group and the limited time and scope of this study. This may have made it harder to find smaller or interaction effects. Future research should replicate this with a larger sample to increase statistical power.

Future studies could also examine other situational factors such as uncertainty or complexity, and how these interact with attention. Heuristics may help explain why time pressure showed no strong effect in this study. It would be valuable to investigate which heuristics managers use, and whether they support or hinder decision-making. As discussed in the managerial implications, future research could also examine whether digital tools help managers stay focused under pressure (Phillips-Wren & Adya, 2020). Finally, combining survey data with interviews may offer deeper insight into how managers experience and manage time pressure in practice.

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8. APPENDIX

8.1 AI disclaimer

During the preparation of this work, the author used ChatGPT in order to find relevant scientific literature, generate ideas, write R code and to improve grammar and writing. The author used Elicit to find relevant scientific literature, Word for writing and editing the document and Endnote for managing and citing references. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the content of the work.

8.2 Survey questionnaire

The following statements concern the quality and outcomes of strategic decisions made in your professional role. Please indicate to what extent you agree with each statement (1 = Strongly Disagree, 7 = Strongly Agree).

	Strongly disagree	Disagree	More or less disagree	Undecided	More or less agree	Agree	Strongly agree
The outcomes of my strategic decisions typically align with the goals I set.	○	○	○	○	○	○	○
My decisions are based on a comprehensive analysis of relevant information and can be considered well-informed.	○	○	○	○	○	○	○
The decisions I make tend to contribute to the overall direction of my team or department.	○	○	○	○	○	○	○
The decisions I make are usually implemented successfully within my area of responsibility.	○	○	○	○	○	○	○

The following statements concern your experience with time pressure during decision-making at work. Please indicate the extent to which you agree with each statement (1 = Strongly Disagree, 7 = Strongly Agree).

	Strongly disagree	Disagree	More or less disagree	Undecided	More or less agree	Agree	Strongly agree
When making decisions at work, there is often not enough time to consider all relevant information.	○	○	○	○	○	○	○
Important decisions often have to be made under tight deadlines.	○	○	○	○	○	○	○
The time available for making decisions is usually shorter than what would be ideal.	○	○	○	○	○	○	○
Time constraints often require making decisions faster than feels comfortable.	○	○	○	○	○	○	○

The following statements relate to how you manage your attention in your professional role. Please indicate the extent to which you agree with each statement (1 = Strongly Disagree, 7 = Strongly Agree).

	Strongly disagree	Disagree	More or less disagree	Undecided	More or less agree	Agree	Strongly agree
I prioritize my attention based on what is most strategically important at the time.	○	○	○	○	○	○	○
I quickly shift my focus when new, urgent issues arise.	○	○	○	○	○	○	○
I focus most on the areas where I believe my input has the most strategic impact.	○	○	○	○	○	○	○

What is your age?

How many years of experience do you have in a managerial role?

In which sector does your organization primarily operate? (e.g., manufacturing, healthcare, education, logistics, public sector, etc.)

8.3 Collinearity statistics (VIF) list

Predictor	GVIF	Df	GVIF..1..2.Df..
attention	1.200218	3	1.030885
timepressure	1.200218	3	1.030885
age	1.708039	1	1.306920
experience	1.884841	1	1.372895
sector	1.229085	1	1.108641

8.4 Standardized industries

Sector	Industry: Manufacturing or service? manufacturing=1, service=0
Petrochemicals	1
Manufacturing	1
Chemical Manufacturing	1
Manufacturing	1

Manufacturing	1
Dairy Farm Equipment	1
Energysector	1
industrial agriculture manufacturing	1
manufacturing (chemical)	1
manufacturing	1
Procurement	1
logistics, transport	0
Public sector	0
IT	0
Customer experience services	0
Energy and Industry	1
wholesale, industry	1
Installation sector	0
logistics	0
Wholesale	0
Public sector	0
manufacturing	1
Renewable Energy Systems	1
manufacturing	1
manufacturing	1
Logistics	0
industrial distribution	0
Catering industry	0
agrarische grondstoffen	1
horticulture	1
retail	0
Food & beverage	1
IT	0
Heating/cooling equipment	1
Milking/Beer, manufacturing, transport	1
Material Handling, software	0
Technical supplier machines and service.	0
industrial installer	0
Public sector	0
Manufacturing	1
Production	1
Manufacturing	1
public transportation	0
public sector	0
Manufacturing and logistics.	1
Banking / financial sector	0
Energy public sector	0
Manufacturing / Chemical Laboratory	1