## GOING WITH THE GUT: EXPLORING TOP MANAGEMENT TEAM INTUITION IN STRATEGIC DECISION-MAKING

#### ABSTRACT

Intuition plays a vital role in strategic decision-making, enabling executives to cut through complexity and to navigate the information processing challenges posed by dynamic environments. However, enduring questions remain concerning the antecedents and the effectiveness of intuitive strategic decision-making. Accordingly, we used critical incident technique and conducted in-depth interviews with top managers from 27 UK firms, focusing on recent intuitive 'hits' and 'misses'. We explore these recent strategic decision-making, contributing to the literature in two important ways. First, we build theory concerning the contextual triggers that foster the use of intuition, and second, we derive insights into the contextual factors that render intuition more, as well as less effective. We offer a series of theoretical and practical insights whereby intuition can be leveraged as a vital input to the strategic decision-making process.

**Keywords:** Critical incident technique, intuition, rationality, strategic decision-making, top management teams, upper echelons, context.

#### 1. Introduction

Intuition plays a vital role in strategic decision-making (SDM) (Baldacchino, Ucbasaran, & Cabantous, 2023; Calabretta, Gemser, & Wijnberg, 2017; Kopalle, Kuusela, & Lehmann, 2023; Samba, Williams & Fuller, 2022)—synthesizing information with experience and enabling top management teams (TMTs) to rapidly evaluate situations, integrate large quantities of information, and deal with contradictory data (Akinci & Sadler-Smith, 2019). Hence, intuition is a vital tool helping TMTs to cope with the unrelenting information processing demands that typify modern-day business environments (Shepherd, Mooi, Elbanna, & Rudd, 2021). Intuition, on the face of it, is especially well suited to tackling strategic decisions because they are inherently judgmental, nonroutine, and complex (Shepherd, Hodgkinson, Mooi, Elbanna, & Rudd, 2020). However, "theoretical precision on intuition use in SDM is lacking" (Samba et al., 2022, p.1).

Crucially, prior empirical research has not convincingly demonstrated the effectiveness of intuitive SDM. For example, Elbanna, Child, and Dayan (2013) and Elbanna and Child (2007a) show that the use of intuition is associated with poor decision outcomes, whereas Khatri and Ng (2000) and Sadler-Smith (2004) show more positive outcomes; and the enduring question remains "When can I trust my gut?" (Dane, Rockmann, & Pratt, 2012). Indeed, much of the management literature is based on the premise that rational decision-making yields superior strategic choices, whereas intuitive decision-making leads to biased choices that reduce decision quality (Calabretta et al., 2017). However, a recent meta-analysis casts doubt on whether rationality is as universally beneficial as previously assumed (Samba, Tabesh, Thanos, & Papadakis, 2021); emphasizing the need to develop stronger theory on intuition, since it represents the alternative mode of decision-making (Epstein, Pacini, Denes-Raj, & Heier, 1996). Aside from limited understanding of the boundary conditions of intuition, another important gap in theory concerns the antecedents of intuitive SDM. Indeed, despite widespread recognition that intuition plays a vital role in TMT decision-making (Khatri & Ng, 2000), little is known about why some strategic decision-making processes (SDMPs) are more intuitive than others (Elbanna et al., 2013). While research has investigated the contextual antecedents of rationality and politics (e.g., Elbanna & Child, 2007b; Papadakis, Lioukas, & Chambers, 1998), little theory and evidence exist concerning the contextual determinants of intuitive SDM (Kopalle et al., 2023). This represents an important gap in theory, since "the use of intuition appears to be a dynamic process, contingent upon a range of triggers" (Sinclair & Ashkanasy, 2005, p.13).

Our central argument is that intuition in SDM cannot be properly understood unless its context is understood. Accordingly, this paper builds new theory through the eyes of top managers by developing theoretical insights into the contextual antecedents of intuitive SDM, and the contextual factors that render intuition more, as well as less reliable. We do so by unpacking the different combinations of individual, team, decision, firm, and environmental factors that shape the functioning and effectiveness of intuition.

Given the paucity of research on intuition in SDM, this paper directly responds to Samba et al.'s (2022, p.11) call for qualitative research to "develop hypotheses for future quantitative work on TMT intuition." We therefore adopted an inductive theory building approach, to unpack the key concepts and dynamics in play when TMTs apply their intuition during SDM. We did so by conducting in-depth interviews with top managers from 27 UK-based firms who were deeply involved in SDM.

#### 2. Theoretical Background

#### 2.1 Intuition: definition and properties

Intuition is rapid, automatic, and happens unconsciously (Baldacchino et al., 2023; Dane & Pratt, 2007; Khatri & Ng, 2000; Miller & Ireland, 2005; Stanovich & West, 2000)—often referred to as "knowing, without knowing how" (Kopalle et al., 2023). Indeed, intuition combines any available information with an individual's experience allowing them to almost immediately see the "big picture" (Hodgkinson et al., 2009). Intuition is typically experienced as a "gut feeling" which provides the decision-maker with a strong sense that the decision either feels right, or feels wrong (Salas, Rosen, & DiazGranados, 2010). Finally, intuition functions by drawing from an individual's long-term memory, prior learning, and experience (Khatri & Ng, 2000).

Intuition contrasts what is often referred to as rational decision-making, which is more effortful, deliberate, and controlled. Rational decision-making involves searching for information, performing analyses on that information (Dean & Sharfman, 1996), and developing and evaluating different decision options (Miller, Burke, & Glick, 1998). Intuition and rationality can complement one another, and often interact during decision-making (Baldacchino et al., 2023; Hodgkinson & Sadler-Smith, 2018; Thanos, 2023). For example, a CEO might have a strong gut-feeling that an acquisition feels right, based on years of experience, and having previously made many acquisitions. This intuitive judgment could then be complemented by rational processes; for example, conducting due diligence, obtaining expert advice, and applying quantitative analyses.

#### 2.2 Research on intuition in strategic decision-making

Empirical research on intuition in SDM is limited and has so far produced conflicting findings (see Table 1). Elbanna et al. (2013) show that intuition leads to negative outcomes and similarly,

Elbanna and Child (2007a) show that intuition is not significantly related to decision effectiveness. However, Elbanna et al. (2013) and Elbanna and Child's (2007a) findings conflict with Khatri and Ng (2000), who demonstrate that intuition is positively related to organizational performance in an unstable industry, and also with Lou et al. (2024a) who show that intuition is associated with superior acquisition performance.

There are, however, discrepancies in how empirical work has been conducted in this area. For instance, Elbanna and Child (2007a) control for rationality and political behavior alongside a series of firm, decision, and environmental controls, whereas Khatri and Ng (2000) omit rationality. Hence, it is uncertain whether Khatri and Ng's (2000) positive effects would remain if a more robust set of controls were included in their model. Sadler-Smith's (2004) longitudinal study provides convincing evidence, and reports that intuitive decision-making is associated with higher performance; accounting for rationality and environmental instability. Further, Hough and ogilvie (2005) find that executives with a preference for using both intuition and objective information make higher-quality decisions.

However, despite these more positive findings, there has traditionally been a "rather downbeat view of intuitive judgment that pervades behavioural decision theory" (Hodgkinson et al., 2009, p.285), encapsulated in Miller and Ireland's (2004, p. 19) assertion that "intuition is a troublesome decision tool". Miller and Ireland (2004) caution that when an executive relies on intuition, other decision-makers may not understand or commit to the decision, and intuition can also struggle when TMTs are trying to develop novel products and strategies. Indeed, when faced with a new or unpredictable decision, there is a heightened risk that executives overestimate the accuracy of their intuition. For instance, an executive might have a strong "gut feeling" about a promising product without considering whether their rival is already ahead of them in developing the same product (see Kahneman & Klein, 2010).

Insert Table 1 here

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#### 2.3 Intuition in team-based strategic decision-making

Often it is the TMT, rather than an individual, that drives strategic decision-making (Hambrick, 2007). Indeed, understanding of strategic leadership is evolving, and recent theoretical advances have broadened conceptualizations to encompass not just the CEO or TMT, but also middle managers (van Doorn et al., 2022; Heyden et al., 2018), internal and external advisors (Simsek et al., 2022), as well as non-executive directors (Lou et al., 2024b). Hence, scholars have begun to move beyond an individual level focus and instead explore how intuition unfolds in team-based strategic decision-making (e.g., Samba et al., 2022). For example, Crossan, Lane, & White (1999) and Akinci & Sadler-Smith (2019) both outline a process whereby individuals have intuitions, which are subsequently shared and interpreted between team members; and eventually, those intuitions form the basis for organization-wide change.

Within this process, rational decision-making may be used to further examine and test individuals' intuitions (Akinci & Sadler-Smith, 2019; Dörfler & Ackermann, 2012), and the ability for top managers to share and collectively make sense of their intuitions, depends on the interpersonal relations of the executive group. Indeed, according to the structuralism perspective on the TMT interface (Georgakakis et al., 2022) TMTs may vary according to the degree of dominance, or power, of the CEO and the extent to which the team makes joint decisions (Samba et al., 2022). With a dominant CEO driving decision-making, there is limited scope for other executives to contribute as they become sidelined; giving rise to power struggles and political behavior (Eisenhardt & Bourgeois, 1988). In contrast, according to the social-interactionism

perspective (Georgakakis et al., 2022), in more collaborative TMTs there is far greater scope to discuss and integrate the intuitions of individual team members (Samba et al., 2022).

However, few studies account for team-based contextual factors, let alone more recent conceptualizations of the managerial interface encompassing the TMT and other salient strategic actors (Lou et al., 2024b; Simsek et al., 2022). Instead, most studies on intuition focus on a single environmental dimension (e.g., Khatri & Ng, 2000; Sadler-Smith, 2004), and what has been missing is an integrative approach that accounts for multiple different contextual factors, such as the team, decision, firm, and task environment (Elbanna et al., 2013; Shepherd & Rudd, 2014). Indeed, the broader context is especially salient since strategic decisions are not made in a vacuum; rather, context shapes the process by which strategic decisions are made, as well as their subsequent success, or otherwise (Rajagopalan, Rasheed & Datta, 1993; Shepherd & Rudd, 2014).

#### 3. Methodology

We followed the approach of Akinci and Sadler-Smith (2019) and Kopalle et al. (2023) and we used critical incident technique (CIT) (Flanagan, 1954) to explore intuition in SDM. We asked top managers to describe two strategic decisions in-depth—one successful and one unsuccessful. Participants were provided with a detailed definition of intuition<sup>1</sup>, and this was discussed with each informant to ensure they understood what was meant. We also discussed in detail with each respondent how intuition is different from related concepts<sup>2</sup> such as instinct, insight, or guessing. We followed common CIT protocol and asked about the background and broader context behind each decision, what happened during decision-making, and the outcomes of the decision. Further probing questions were prepared to tease out and scrutinize the role of intuition in each of the decisions. Hence the interviews explored top managers' perceptions of intuition in SDM, and

questions spanned areas such as the role of intuition in recent strategic decisions, their views concerning the efficacy of intuition, when and why intuition was used, the role of intuition in decision episodes that were both successful and unsuccessful, and interactions between intuition and alternative decision processes (e.g., rationality). For example, we explicitly asked questions such as "what role did intuition play?", "Why was (or wasn't) intuition used?", "Whose intuition was it?", "When in the decision process was intuition used?", and "What were the factors that meant intuition was reliable or unreliable?"

In total, we interviewed 27 top managers (see Table 2). Prior to each interview, informants learned details of how the findings would be used and received assurances of anonymity. Interviews lasted between 75 and 180 minutes, and all interviews were audiorecorded with informants' permission. Nearly all interviews took place at the informants' workplaces in private settings (e.g., informants' offices). All interview recordings were transcribed, and informants verified the transcripts (Saunders, Lewis, & Thornhill, 2009). We analyzed data through a thematic qualitative coding approach utilizing themes found within the existing literature. Detailed interview notes and reflections were recorded within one day of the interview.

Insert Table 2 here

#### 3.1 Key informant selection

18 (two-thirds) of the informants were chief executive officers (CEOs), three were chief finance officers (CFOs), two were chairpersons, and another two were chief operating officers (COOs); the final two served as head of strategy and commercial director. Informants were from sectors including financial services; pharmaceutical and chemicals; consultancy, business, and professional services; wholesale; utilities; information technology; media and communications; healthcare; facilities management; printing and publishing; and manufacturing (see Table 2).

We followed an intentional (theoretical) sampling approach (Kopalle et al., 2023; Strauss, 1987), and we selected firms because they reveal our focal phenomenon—i.e., recent strategic decisions. We deliberately sampled across a range of organizations and industries to provide maximum variation in the sample (Miles & Huberman, 1994), and we ensured the face validity of the data by only including experienced top managers. Access to informants was gained using personal networks, and a key feature of the study is that we secured access to board-level organizational elites for lengthy interviews owing to personal contacts from the first author's previous career in management consultancy. As such, we adopted the role of a semi-insider (Aguinis & Solarino, 2019), and in several cases, informants were former clients. All informants willingly participated in the study, indicating high levels of interest in the topic, and the identities of those involved are disguised to protect personal and commercial interests. Since our approach was inductive and based on a non-probability sampling method, it was not our aim to generalize across organizations or sectors. However, the breadth of coverage enables us to evidence empirically common issues associated with how intuition unfolds within TMTs during SDM.

#### 3.2 Data analysis

Interviews were conducted until theoretical saturation was achieved (Strauss, 1987), defined as "when there are no new insights or themes in the process of collecting data and drawing conclusions" (Aguinis & Solarino, 2019, p.1295). After conducting and analyzing interviews 25-27, which had already been scheduled, we recognized that data saturation had occurred. After 24 interviews, we had created all but three of the total number of codes developed. Moreover, upon re-analysis of the three new codes identified, we realized they were

neither new nor novel, but rather, were simply variations of existing themes. For example, one of these new codes had been labelled "financial flexibility" however, upon re-analysis it was apparent this was very closely related to the existing code "performance levels/slack resources". In sum, after analysis of 24 interviews, no new or novel themes emerged and so the interview process was stopped.

Data collection and analysis occurred simultaneously (Glaser, 2013; Saunders et al., 2009). To enable triangulation (Denzin, 1989), reduce researcher bias, and increase confidence in the reliability of the findings, one academic and two research assistants systematically analyzed interview texts. The use of two research assistants was a critical safeguard given the role of semiinsider that was assumed with several of the cases (Aguinis & Solarino, 2019). We began the analysis process by identifying focal issues and themes that required attention (Strauss & Corbin, 1998). We created categories that are both internally pertinent in terms of the data and externally meaningful in relation to other categories (Bryman & Bell, 2011). Ultimately, we derived a code linking together the axial codes, and through continual comparison of the axial codes, we were able to elucidate emergent patterns and relationships within the data, while ensuring the categories remained integrated and theoretically adequate (Silverman, 2007). To present our data, we follow Pratt's (2008; 2009) guidance and we use Table 3 to provide the evidence underpinning our arguments ("proof" quotes), and we include "power" quotes within the text of our discussion to provide compelling illustrations.

#### 4. Findings

#### 4.1 Intuition triggers

The data indicates that micro-level factors (i.e., the characteristics of the CEO and TMT) are key drivers of intuitive SDM (see Figure 1 and Table 3). Particularly prevalent were CEO core selfevaluations, cognitive style, cognitive diversity, and expertise. Indeed, core self-evaluations (Hiller & Hambrick, 2005) emerged as a central determinant of the extent to which executives were confident relying on intuition: those with unwavering conviction in their assessments of their self-efficacy, who had high self-esteem, and an internal locus of control were more predisposed to rely on intuition. This was succinctly captured by one CEO (Informant 11) who commented "I think I could go and manage most companies now"; and accords with the notion of hyper (exceptionally high) core self-evaluations (CSE) which threatens decision-making since executives are more inclined to "take grandiose actions that can easily lead to catastrophic results—as a result of their personal conviction that they can do no wrong" (Hiller & Hambrick, 2005, p. 298). Hence, Hiller and Hambrick (2005) argue that hyper CSE can contribute to a less comprehensive, faster, and more centralized decision-process resulting in extreme variations in performance. Indeed, hubris and over-confidence, closely associated with hyper CSE, are also associated with "unbridled intuition" and a failure to check intuitive judgments using rational processes (Claxton, Owen, & Sadler-Smith, 2015). Interestingly, another participant attributed excessive reliance on intuition, or unbridled intuition, to the individual's underlying confidence and evaluations of themself:

"I'm not a very sort of patriarchal CEO who has to be the smartest guy in the room all the time... it'll be narcissists and egotists who'll be the only ones daft enough." (CEO, Informant 16)

Insert Figure 1 and Table 3 here

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Another key theme was the role of individual preferences in decision-making, or

cognitive style. Informants frequently stressed the importance of the CEO's cognitive style in

particular, for determining the degree to which intuition was relied upon. For instance, a CEO highlighted:

"I think my personal style is more about ... I've got a reasonable people radar and can read environments and circumstances well, and that's evident in these decisions...Other people would be much more analytical you know, a couple of my guys on the Board are extremely analytical, you know, pull the numbers apart to the n<sup>th</sup> degree and you know, I'm bored by the third page." (CEO, Informant 6)

Several informants highlighted cognitive diversity—the extent to which TMT members have differing views concerning the strategic goals and priorities of the firm (Miller, Burk, & Glick, 1998)— as being an impediment to dominant actor forms of intuitive decision making. They noted that cognitive diversity ensures alternative courses of action are thoroughly scrutinized and ensures the SDMP moves quickly to the integration of intuitive judgments and information distributed throughout the team. One CEO explained that he deliberately sought challenge from other TMT members to ensure SDM was not overly reliant on his own intuitive judgments, "I thrive in that challenging environment and if you like, pitting my wits, my thoughts, my intuition against other people's" (CEO, Informant 10).

Expertise emerged as another factor driving intuition use, and informants described executives with low and high levels of expertise favoring intuitive approaches. Experts have complex mental models and in-depth knowledge (Fiske & Taylor, 1991). Expertise enables intuition to accurately recognize salient features and aspects of a decision, and then to match them to past experiences stored in the long-term memory (Dreyfus & Dreyfus, 2005; Kahneman & Klein, 2009; Klein et al., 1986; Simon, 1987). In the context of executives, expertise derives from extensive experience, deliberate practice—that is, having faced challenging problems in the workplace (Hodgkinson et al., 2009), and having received exact and precise feedback on prior decisions (Ericsson & Charness, 1994; Ericsson and Lehmann, 1996)—including mistakes, which often represent the most valuable learning opportunities (Dreyfus & Dreyfus, 2005). For instance, the CEO of an insurance company asserted that high levels of expertise, stemming from experience of making similar decisions and the learning that arises from mistakes, has equipped him with confidence to rely on intuition. Interestingly, he also describes relying on intuition when he first was promoted into the role, but less so when he was only moderately experienced in the role:

"I went on my gut-feel because I've got 20 years of experience behind me...when I first came into this role, I also relied on intuition, but I was naïve. Then as you gain more experience, you know you can see the gaps in your knowledge, so you go with the more analytical view, and then when you become accomplished in your role...then you rely on intuition again, confident that you've been around the block enough times to call it." (CEO, Informant 12)

Another key factor influencing intuition pertains to the characteristics of the decision itself. For instance, the way the decision is framed—as a threat or as an opportunity—emerged as a key determinant of intuition use. However, clear dissensus emerged in the findings, with some informants citing examples of threats making them more likely to rely on intuition, and others saying the exact opposite—that when faced with a threat, they favored rational approaches. Intriguingly, perceptions seemed to vary according to the size of the firm. For example, one CFO of a smaller firm explained that if the decision is a matter of "life and death," intuition plays a prominent role, and while intuitive judgments may be supplemented with rational approaches to justify the decision to third parties such as financial institutions, the decision is taken on the basis of gut feel: "We were in a position where the strategic danger was more a life and death situation, so although we did do more analysis, we put less credence in it, and we went in the direction that we *felt* was best" (CFO, Informant 3).

This sentiment contrasts starkly with another CEO of a larger firm, who emphasized how extreme threats rendered his own TMT less likely to rely on intuition: "So, it was a key decision you know—it was really risky—so we put a heck of a lot of data into it" (CEO, Informant 5).

Participants also often noted the familiarity of the decision, or whether they had confronted similar decisions in the past, as a key intuition trigger. For instance:

"As we've been developing we've made bucket loads of acquisitions—some good, some bad...once you've done them a bit, it's like yeah, okay, fine, get on with it, and that's where we tend to rely on intuition." (CEO, Informant 12)

Firm-level characteristics also emerged as key contextual influences determining the extent to which TMTs rely on intuition in SDM. While firm past performance featured prominently, dissensus was evident concerning whether poor or high performance stimulates intuitive SDM. For instance, one CEO explained that better performance promotes reliance on rational approaches, because the firm has more resources to fund activities such as hiring consultants and conducting feasibility studies: "With that decision we were profitable, so we tended to use more analytics. For the simple fact that we could afford to pay for the analytics" (CEO, Informant 13). Conversely, a CEO of a large multinational utilities company explained how, owing to significant financial slack in his organization, their SDMPs had tended to be far more intuitive, with far less reliance on exhaustive analysis, although he perceived this resulted in suboptimal decisions:

"we've had so much cash in the bank, any project that met the hurdle rate, rate of return you know, almost certainly got approved. Because why wouldn't we? It's better doing that than having the cash sort of sitting there." (CEO, Informant 22)

Informants also cited firm size on multiple occasions, often when they contrasted their current organization with other organizations where they had served on the TMT. The common theme was that in larger firms there is less scope to rely on intuition, whereas in smaller firms the

teams had much greater freedom. The following quote sums up the commonly held views of informants: "The larger the company...that agility tends to disappear...you get a larger management group and it's more council-like...when we were smaller...we moved quickly and you can do it on your intuitions" (CEO, Informant 6).

Environmental hostility was also mentioned as a condition that dampened intuition use, with informants citing difficult trading conditions as causing less reliance on intuition and greater reliance on rational approaches. Intuition was viewed as risky in the face of hostile trading conditions, and given the high stakes, it appears that informants' firms favored rational approaches to stratify perceived risk: "We now think we need more a more formal strategy for product development in place and this is ... yeah ... this is based on the more difficult environment...yeah, there's less intuitive decisions now for sure, but it wasn't always like this" (CEO, Informant 18).

Finally, national culture emerged as a key determinant of the use of intuition in SDM, with several informants contrasting UK and German TMTs. The degree of uncertainty avoidance emerged as a particular cultural dimension that explains the propensity of a TMT to rely on intuition. For instance, one COO of a British subsidiary of a German financial services firm suggested that some cultures (e.g., Germany) show a natural preference for rational facts-based decision making, likely owing to their relatively high predisposition toward uncertainty avoidance: "a British-run corporation...decision making is less based on pursuit of facts and figures and cold logic, and is based on the softer stuff, if you like....But German decision making like with our parent company is entirely different, it's a search for absolute truth" (COO, Informant 25).

#### 4.2 Moderators of intuition triggers

While the afore mentioned contextual factors affect the extent to which TMTs rely on intuition, they do not guarantee the use of intuition, since these antecedents appear to be moderated by two key team characteristics, as well as the size of the firm. First, informants frequently noted that the degree to which intuition can be brought to bear on a situation was contingent upon the structure of the team, specifically, the degree to which the team is centralized or decentralized. Centralized decision-making gives much greater scope for reliance on one individual's intuition, whereas when more of the TMT are involved, the SDMP tilts to encompass both intuitive and rational elements, and sometimes political processes too. A CFO highlighted that recent acquisition decisions had been largely based on intuition, owing to intense time pressure, and that this rapid intuitive style of decision making had been facilitated by a highly centralized approach:

"Myself and the CEO are fully aligned....Our opinion will prevail over anyone else's. We liked it [the acquisition target] and a divisional director didn't, but our opinion prevailed....We've made a decision to make an offer, in parallel to that we let the board know we're doing it—no detail other than at the highest level—it's a good opportunity and we're going to pursue it." (CFO, Informant 4)

Indeed, while a TMT might comprise a diverse range of cognitive styles, the degree to which any particular cognitive style is reflected in the SDM process is contingent upon the extent to which the CEO involves other TMT members in the SDMP. Indeed, there is somewhat of a limitation in the extant literature on cognitive styles, which effectively uses the cognitive style of the key decision-maker—often the CEO—as a proxy for the actual decision process (Baldacchino et al., 2023); however, this assumption might not always hold due to the influence of other contextual factors, for instance:

"Thinking back to these decisions, I'm what you might call intuitive you know, but I also recognize you need the analytics, you need the vision but, I wanted people that mull it over and you know, think through the thing...The power can't just sit in my lap." (CEO, Informant 14)

A further factor regulating intuition pertained to the team climate, and informants described conditions akin to the concept of psychological safety (Edmondson, Roberto, & Watkins, 2003) which provides conditions in which TMT members feel confident voicing intuitive judgments, which can often be difficult to articulate and defend in a rational sense. The following quote encapsulates this concept:

"When we were kicking around the idea to move into this new product area, we were able to really open up about it because that's the nature of our top team...we're close knit...we're in constant dialogue...I would say that's probably one of our competitive strengths compared to a lot of our rivals because I know for a fact they don't have that teamship that we have." (Commercial Director, Informant 2)

Finally, while firm size emerged as having a direct bearing on intuition, it also appeared to regulate how perceptions of the decision shaped the subsequent decision process. Executives in smaller firms, when faced with a decision perceived as threatening, tended to favor intuitive approaches. For instance, one CEO of a small firm commented that: "the downside of that decision was it would denude our cash reserves, we were effectively backing the business on that [decision]...so it was gut feel, trusting gut feel" (CEO, Informant 1). However, in larger firms, executives emphasized the importance of rational evidence-based approaches to provide an audit-trail in case the decision goes awry and is questioned subsequently. This was perhaps best encapsulated in the following: "Faced with that kind of nightmare scenario, ass covering rose to the fore." (CEO, Informant 16)

#### 4.3 Intuition enhancers

In Figure 2 (and accompanying Table 3) we present four scenarios which emerged from the data, according to whether intuition featured or not, and the outcome of the decision process. Several cases described "intuitive hits" – where intuition featured prominently and the decision proved effective, whereas other cases detailed intuitive decision processes which were

unsuccessful – "intuitive misses". Also emerging from the data were decision processes where intuition featured minimally; and again, some of these incidents proved successful – "rational hits" whereas others were less effective – "rational misses". In the following section, for each of these four scenarios we unpack the contextual factors and processes which shaped the effectiveness, or otherwise, of the decision.

Insert Figure 2 here

#### 4.4 Intuitive hits

Intuitive hits were characterized by the prominence of intuition—though often in concert with rational decision-making. Underpinning each of these intuitive hits were several common contextual factors pertaining to the characteristics of the team, the decision, and the industry. At the team level, the underlying levels of psychological safety were paramount for the effective sharing and integration of different team members' intuitive judgments. Team members will only engage in open and honest debate and challenge one another's intuitions when they feel free from the risk of reprisal (Shepherd, Mooi, Elbanna, & Lou, 2023). When psychological safety is absent, there is a risk that attempts to integrate the different intuitions of team members fail, and political processes run free. However, when psychological safety is present, the process of team members interrogating intuitive judgments, integrating different intuitions, and imploring others to understand them appeared less problematic. For example:

"There's a balance here; we needed to probe the intuition...We did because I think we're different and because of our backgrounds and the length of time we've all known each other, well, we can be pretty forthright." (Commercial Director, Informant 2)

Further, irrespective of whether intuitive judgments featured as part of a team form of intuition or a dominant actor form of intuition, expertise was a common factor shaping the reliability of those intuitive judgments. The complex and well-developed mental models of

experts enhance the likelihood of their intuition identifying key features and aspects of a decision, and then accurately matching those to previous solutions held in their long term memory (Dreyfus & Dreyfus, 2005; Simon, 1987). As one CEO explained:

"It would have been difficult for us to have based that decision on intuition without that deep understanding of the industry, but it's also having done something similar before—you know, so we got in the mindset that we were just repeating what we did last time and that was successful and we're not repeating what I did the other time when it was unsuccessful. So for me there was a sort of history bank of intuition." (CEO, Informant 22)

Another critical component of intuitive hits in team forms of intuition was breadth of cognitive styles, and intuition appeared to work most effectively in parallel with rationality which facilitated group-wide interrogation of intuitive judgments. Importantly though, diversity in cognitive styles needs to be allied to a decentralized team structure—without which one person's intuition overly dominates with limited opportunity to interrogate those intuitions, and other team members' gut-feelings get sidelined. For example, one informant stressed the importance of drawing on different cognitive styles to enhance decision quality: "I mean there's value in drawing upon other people's styles. And it's that breadth…having that breadth of different inputs, different styles, into the decision-making process that's valuable" (CEO, Informant 15).

The data show that one particularly important decision characteristic is uncertainty, and informants reported that intuition worked best when applied to decisions for which there was an absence of information: "we didn't have explicit data telling us what's going to happen in three years' time. That's when intuition came in" (CEO, Informant 20).

The time pressure associated with the decision also emerged as a key factor determining the efficacy of intuition; since intuition is defined by its speed, it is most effective when applied to time-pressured situations. A number of informants referred to mergers and acquisitions (M&As) as strategic decisions that often become time pressured, as rival bidders emerge or as targets set completion deadlines, and hence, they often credited intuition as a means of reaching judgments rapidly. One CFO explained: "We literally had seven days to do the acquisition...there were lots of gaps and holes in our analysis...it was a big acquisition...but the final decision was based on intuition" (CFO, Informant 4).

Several informants mentioned that the effectiveness of intuition depended on the matter being decided. M&As were a type of strategic decision for which intuition appears better suited, because the judgments often involve "softer" issues—for example, the target firm's leadership and employees, or the ability to integrate two different organizational cultures—that rational approaches may struggle with. Intuition is adept at solving problems that lack established rules for dealing with the issues (Shapiro & Spence, 1997), and one informant explained:

"Every acquisition I've discussed has been a case of making an intuitive decision as to whether I trust the leadership team and believe in the leadership team that I'm acquiring, and my view on the staff we're acquiring and their processes and culture. There isn't really any form of analysis or textbook solution that can help." (CFO, Informant 4)

Finally, several macro level factors emerged as intuition enhancing factors; most notably,

informants mentioned the rate of change taking place in the external environment as another contingency factor influencing the efficacy of intuition. Unpredictable and unstable environmental change significantly increases the complexity of decision making, and in dynamic environments, top managers face ambiguous and ever-changing information and circumstances. Intuition can help top managers to rapidly evaluate such situations by synthesizing any available information with experience. For instance, one CEO commented:

"The pace of change in the market you know, is what matters...you can feel it...you feel that pressure to make quicker decisions. Our industry favors people who have a good gut feel and have the confidence to rely on that" (CEO, Informant 9).

Informants frequently mentioned industry sector (e.g., manufacturing versus services), and several asserted that intuition is most helpful when applied to the context of services companies because decisions in these organizations more often pertain to the softer issues concerning people and processes; in contrast to manufacturing organizations, where decisions naturally lend themselves more to rational approaches. For example: "with more service-orientated industries that intuition is so much more valuable because again you're dealing with people, and people's behavior doesn't often lend itself to MBA-style planning approaches" (CEO, Informant 19).

Similarly, another informant noted that intuition was perceived as better suited to industries characterized by innovation and creativity: "Where I was working in cutting-edge technology and innovation, you haven't done any analysis because there would be no point—the data isn't there to analyze. That's where that intuitive spark is needed" (Head of Strategy, Informant 21).

#### 4.5 Intuitive misses

Intuitive misses tended to arise in scenarios where one or more of three common factors were evident. First, in some cases informants perceived there had been excessive reliance on intuition and a failure to adequately interrogate those intuitions with rational processes, which was a particular risk associated with dominant actor forms of intuition with centralization of power. Additionally, the process of integrating different team members' intuitions appeared to break down in certain teams, causing the team to splinter and giving rise to pernicious political behavior. For example, one informant reported how an ultimately loss-making international expansion opportunity had been pursued by a dominant coalition, despite several other TMT members imploring them that the opportunity hadn't "felt right" from the outset. Those ostracized team members retaliated by ensuring the opportunity was destined to fail regardless of its merits. In other cases, it was the broader context that reduced the reliability of intuitive

judgments, as shown in Figure 2. Of particular importance was new market entry as a type of decision ill-suited to intuition—owing to a lack of prior experience in the target market. For example: "It felt right, we were excited, gut-feeling wise we 100% wanted it. But we just overlooked the sheer complexity of it...we didn't anticipate the reaction from the competition" (CEO, Informant 18).

#### 4.6 Rational hits and misses

Rational hits were characterized by systematic environmental scanning and extensive information collection, analysis, and exchange. The conditions that appeared to favor rational decision-making were relative environmental stability and environmental hostility. Indeed, in hostile conditions analytical approaches were favored to carefully tease out opportunities or to rigorously scrutinize threats amidst a prevailing feeling among executives that one false move might bring about the firm's demise. An especially interesting theme emerging from the data was the role of firm resources in enhancing the efficacy of rational thinking—resource abundant firms appeared to have greater success with rational decision processes, attributable to being able to deploy external specialists, consultants, and commission market research to elevate the depth and quality of insights gained from analysis. One informant provided the example of using a consultancy which prompted them to re-consider entire aspects of a diversification strategy—to escape a declining market—that they had completely overlooked, even though they had felt that their own internal analysis had been comprehensive.

Some reported decisions that suffered from excessive reliance on rationality and the common theme was that rational processes quickly become overwhelmed in dynamic and information rich environments which produce a surfeit of data. Excessive reliance on rationality was associated with an imbalance of cognitive styles on the TMT, especially those heavily

influenced by top managers from science and engineering backgrounds. One informant reported their firm had been too slow to restructure following a deterioration in the economy and the loss of two major customers. In their words, the TMT had "tried to *engineer* their way out of it"; when what had been required was the courage and conviction to go with their initial gut-feelings—to downsize quickly and remain agile. Other times, rational thinking had been over-relied upon in situations that required predictions about employees' behavior. For example, one informant described an acquisition opportunity that was missed because the TMT wanted to better understand the implications of merging the entities for the morale and retention of staff in the target firm. Finally, services industries proved problematic for decision processes relying solely on rational processes, for example: "What that taught us was that in services (a) there's no ability to protect the IP [intellectual property] and (b) that competition in services is much more driven by 'were you first to market?'" (CFO, Informant 3).

#### 5. Discussion

We discuss our findings and their implications in terms of three core contributions to theory, and we then outline the important implications for future research. Finally, we suggest some practical recommendations to improve TMTs' strategic decision-making processes.

5.1 Advancing knowledge of contextual antecedents of intuition in the strategic decision-making process

Prior SDM research has focused on antecedents of decision processes such as procedural rationality and political behavior (e.g., Bourgeois & Eisenhardt, 1988; Elbanna & Child, 2007b; Papadakis et al., 1998). However, very little is known about the antecedents of intuition despite intuition being recognized as a key influence on decision quality and firm performance (e.g.,

Elbanna, 2006; Elbanna & Child, 2007a; Elbanna et al., 2013; Khatri & Ng, 2000; Sadler-Smith, 2004). Indeed, Kopalle et al. (2023) explicitly call for research examining intuition "triggers". Our study thus furthers understanding of when decision makers are more likely to rely on intuition, thereby addressing a key limitation in extant theories of intuition in SDM, which have tended to assume that cognitive style will equate to the realized decision process (Baldacchino et al., 2023). We argue that these accounts, largely based on cognitive psychology and therefore situated at the individual level, do not adequately account for the requisite complexity and multilevel nature of SDM. Our study thus contributes to the SDM literature by advancing knowledge concerning the various contextual triggers that foster the application of intuition during decision-making. Indeed, we directly build on the work of Sadler-Smith (2004) which assumes cognitive style to be the key determinant of decision process, and Elbanna et al. (2013) who propose decision and firm level antecedents of intuition. We develop understanding further by considering and deriving individual, team level, and firm antecedents, as well as decision and environmental triggers.

An additional and important contribution is our consideration of how certain contextual antecedents also moderate the effects of other antecedents, and thus we move theory beyond considering simple bivariate relationships (e.g., Elbanna & Child, 2007a; Papadakis et al., 1998), to consider how contextual factors might interact together to shape the use of intuition. To the best of our knowledge, ours is the first empirically grounded SDM study to explicitly consider interactions between antecedents to explain important dimensions of decision process. The contextual antecedents that we empirically derive can be associated with different perspectives—for example, the individual and team level antecedents equate to the strategic choice or upper echelons perspective, alongside the environmental determinism perspective, as well as the firm

characteristics and decision perspectives (Rajagopalan et al., 1993). Our findings demonstrate that none of these perspectives alone are sufficient to explain variance in decision processes. Thus, by exploring the triggers of intuition at the individual, team, decision, firm, and environmental levels, we advance a more nuanced and realistic account of intuition than research has so far provided.

# 5.2 Advancing understanding of contextual contingencies shaping the effectiveness of intuitive strategic decision-making

Our findings help to reconcile previously contradictory empirical results concerning the effects of intuition. While Elbanna and Child (2007a) and Elbanna et al. (2013) find a negative effect of intuition, Khatri and Ng (2000) and Sadler-Smith (2004) report a positive effect. Such contradictory findings indicate unknown moderators (Shepherd & Rudd, 2014) as well as the omission of alternative decision process dimensions-for example Khatri and Ng (2000) omit rationality. On the whole, SDM research suffers from the application of over-simplified models to very complex phenomena (Elbanna & Child, 2007a) and the significant majority of studies on intuition in SDM focus on a single environmental contingency (Papadakis et al., 2010). Our theory and evidence thus advance the literature by simultaneously considering the effects of multiple layers of context together with managerial actions, and managers' cognitions to explain why some strategic decisions succeed, while others fail. Few studies have captured this level of complexity (Papadakis et al., 2010), possibly owing to a deductive straight jacket that exists which has hindered the development of novel insights. Indeed, Nutt and Wilson (2010) explicitly call for research on intuition to adopt a "multi-factor approach" (p. 649) to modeling context, which the present study goes some way to address.

Our findings also add additional richness to the insights provided by Kahneman & Klein (2010) who debate whether intuition is ever reliable in SDM, and who focus their arguments on the predictability of the task (or task validity), and the decision maker's expertise as the key moderators of intuition. Our findings concerning expertise are in accordance with Kahneman & Klein (2009; 2010). However, our findings concerning environmental dynamism, decision uncertainty, and M&A decisions-which in our data improve the effectiveness of intuition-run contrary to Kahneman & Klein (2009). Indeed, none of these factors appear in keeping with Kahneman & Klein's (2009) notion of a predictable or "high validity" task, and Kahneman & Klein (2009) cite medicine and firefighting as professions where intuition is more reliable, because they both occur under conditions of relative predictability. For example, buildings will show consistent signs they are at risk of collapse, and the symptoms caused by a particular illness are consistent from one patient to the next. Rather, our findings here are more in-line with Eisenhardt (1989) and Khatri & Ng (2000). This could owe to the fact that SDM is more often a team-based process, meaning inaccurate intuitions can, in certain teams, be challenged and complemented by rational processes (e.g., Akinci & Sadler-Smith, 2019; Samba et al., 2022); a possibility that is over-looked by Kahneman & Klein (2009) owing to their focus on the individual level. Indeed, our findings suggest that team factors such as diversity in cognitive styles, psychological safety, and power decentralization shape the effectiveness of intuitive SDM.

Further, when making strategic decisions under conditions of dynamism, there is inevitably time pressure (Thanos, 2023) and executives can often find themselves in situations where the information needed for rational decision-making simply doesn't exist, or quickly becomes obsolete (Eisenhardt, 1989). Hence, in a dynamic environment, intuition is often the only viable basis for decision-making (Khatri & Ng, 2000), which accords with Klein et al.'s (1986) recognition-primed decision model which describes how expert firefighters quickly identify a viable course of action without evaluating multiple alternatives. This is achieved through a quick mental simulation of the first plausible option that comes to mind (Klein et al., 1986; Klein & Zsambok, 1997). If this initial option proves infeasible, it is either modified, or the next option is simulated (Kahneman & Klein, 2009). The firefighters used this mental simulation, grounded in decades of experience, to make critical decisions such as to identify signs that a house might collapse. Hence, similar to these expert firefighters, many executives in our sample had a deep knowledge of their firm and industry based on decades of experience, meaning that "aided by intuition, they can react quickly and accurately to changing stimuli in their firm or its environment" Eisenhardt (1989, p. 555).

#### 5.3 Advancing understanding of intuition in team-based strategic decision-making

Although Eisenhardt (1999) first highlighted the importance of collective intuition, research has remained almost exclusively focused on the individual level of analysis (Dane & Pratt, 2007; Miller & Ireland, 2005; Sadler-Smith & Shefy, 2004). We directly build on this body of literature, by advancing intuition research onto the study of intuition in a team-based decision context. We thus build upon the theoretical arguments advanced in the psychology (e.g., Kahneman & Klein, 2009) and organizational psychology literature (e.g., Dane & Pratt, 2007) and provide a dynamic account of how intuition unfolds in a team-based decision context. In doing so we also build on Crossan et al. (1999), Akinci and Sadler-Smith (2019), Kopalle et al. (2023), and Samba et al. (2022); and we explicate a series of team based antecedents and moderators that shape both the use of intuition and the effectiveness of intuitive SDM. Prior research has largely overlooked the interaction between intuition and rationality (Akinci & Sadler-Smith, 2019; Calabretta et al., 2017; Thanos, 2023) and entirely overlooked the interplay between intuition and political behavior (Elbanna et al., 2015); despite SDM being a multi-dimensional process (Elbanna, 2006; Papadakis et al., 1998; Shepherd & Rudd, 2014). However, one of our 'intuitive hit' episodes, concerning an unexpected acquisition opportunity, was described as a team-based form of intuition, where intuition and rationality worked together in concert—intuition as an immediate confirmation that members of the team were eager to pursue the acquisition, and a subsequent rational process where those gut-feelings were shared, probed, and integrated among team members. Key to this process though was the skillful use of political tactics aimed at selling the acquisition opportunity to a small cohort of skeptical executives, without whose support the decision would have stalled. Hence, the successful outcome of this intuitive 'hit' had as much to do with the political savviness of a small group of executives as it did skilled intuition or rigorous analysis.

#### 5.4 Limitations and future research

Since the study is qualitative, the generalizability of our findings might be limited. Also, as with any qualitative research design, respondents may have had personal agendas. However, the approach taken is entirely consistent with the nature of the research problem—which necessitated in-depth insights into a complex social phenomenon to develop hypotheses for future quantitative studies on intuition in SDM. Also, access to several informants was gained through personal contacts, which is a relevant consideration for future research; and it is probable that informants gave candid responses owing to the rapport and high levels of trust that existed between interviewer and interviewee.

Quantitative research is now needed to test some of the hypotheses emerging from our data (see Table 4). A particularly interesting avenue would be to examine variable interactions, both in terms of predicting intuition use (i.e., between contextual triggers), and also in terms of moderating the effects of intuition on outcomes such as decision quality or firm performance. Systematic quantitative examination of some of the relationships identified herein would certainly help to build a coherent body of robust empirical evidence, capable of guiding TMTs toward more effectively applying their intuition.

Finally, strategic leadership is often distributed (van Doorn et al., 2022) and can involve middle managers (e.g., Heyden et al., 2018), as well as internal and external advisors (e.g., Simsek et al., 2022), and non-executive directors (Lou et al., 2024b); however, there is currently a theoretical shortfall in terms of understanding the role of intuition in interactions between top managers and other salient strategic actors. Hence, a further priority for future research would be to move away from focusing on the CEO as the central dominant strategic actor, and to explore and understand how intuitive strategic decisions are communicated, shared, and "sold" to other salient stakeholders involved in the process of strategic leadership and who form the managerial interface.

Insert Table 4 here

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#### 5.5 Implications for practice

Our in-depth exploration of intuitive hits and misses enables us to derive several salient practical implications, centered around the need to develop intuitive awareness in management *education*, the need for executives to *embrace* intuition, and the need for executives to develop their *expertise*.

The rational model of strategic decision-making prevails across the curricula of most business schools (Sadler-Smith & Shefy, 2004), whereas the development of awareness of intuition tends to be neglected (Sadler-Smith & Shefy, 2007). While business schools have long embraced experiential activities to nurture interpersonal skills (e.g., role play exercises), most have been slow to embrace methods which might develop intuitive awareness, skills, and competencies. This is problematic since "intuition is sometimes marvelous and sometimes flawed" (Kahneman & Klein, 2009, p. 515); and given the high stakes nature of strategic decision-making, it is concerning that managers, and future managers, are being educated without any awareness of the conditions under which intuition might be marvelous, and the conditions under which it might be flawed. Thus, business schools should incorporate into their curricula a range of practical and readily available techniques to enable individuals to "tune in" to their intuition. For example, somatic awareness (i.e., tuning into gut-feelings) can be enhanced by paying attention to bodily sensations and employing relaxation techniques, and by mindfully allowing one's thoughts to flow spontaneously. Further, since intuition is pre-verbal, the use of visual imagery techniques can also help to develop intuitive awareness (see Sadler-Smith & Shefy, 2007).

Second, executives should embrace intuition in strategic decision-making. However, they often try to hide the fact they rely on intuition and instead they seek out objective evidence to provide a post-hoc rationalization for their intuitive judgments (Elbanna et al., 2013). Hence, executives appear to have concerns that intuition is unscientific (Sadler-Smith & Shefy, 2004), perhaps in part because of the afore mentioned bias towards rational models of decision-making taught in most business schools. Our study goes some way to attenuating concerns about the viability of intuition in strategic decision-making. In particular, our identification of contextual

factors such as expertise, time pressure, and dynamism; which increase the effectiveness of intuition, should embolden executives' to embrace intuitive approaches to strategic decision-making.

Finally, and perhaps most importantly, executives need to pay close attention to their expertise, since it is a central determinant of the reliability of intuition. However, job mobility is increasing (Dane & Pratt, 2007), and executives are thus less likely to be able to engage in high levels of focused deliberate practice in any particular domain; meaning they are less able to develop the complex mental models required for effective intuitive decision-making. Accordingly, organizations should focus on retaining executives and other stakeholders at the managerial interface, in similar job domains to enable the development of complex domain relevant mental models. Relatedly, while executives and non-executive directors are often hired from unrelated industries, an individual may not be as skilled at making intuitive decisions in a context that differs substantially from the context in which their mental models were developed. Thus, in sum, organizations should be cautious to embrace the intuitive judgments of new strategic leaders without relevant industry experience. Separately, expertise can only develop when high quality feedback is available since it enables individuals to learn the lessons from their intuitive hits and misses. Thus, strategic leaders need to nurture a culture in which executives' intuitive judgments can be critiqued and challenged. In sum, for true expertise to develop, executives need to blend their experience with accurate, timely, and detailed feedback.

#### Notes:

[1] The following definition of intuition was discussed in detail with all respondents: Intuition refers to emotionally (or affectively) charged judgments that arise through rapid, unconscious, and holistic thinking. By emotionally or affectively charged, I mean those feelings and emotions that accompany an intuitive judgment, often referred to and experienced as a "gut-feeling". The holistic part of the definition refers to being able to see the big picture and seeing links, patterns, and answers to problems and situations. By unconscious, I mean occurring outside of conscious thinking and having a direct understanding without any other form of reasoning or representation. A final key defining characteristic of intuition is its speed, especially in contrast to analytical decision processes.

Intuition can be thought of as immediate mental understanding without reasoning...what is referred to as a gut feeling; a hunch; a sense of knowing what to do—without being consciously aware of *how* you know what to do. These are judgments that almost instantly combine lots of complex information and draw on one's experience to form a judgment about how to proceed.

[2] We also discussed with respondents in detail how intuition is distinct and different from:

<u>Instinct</u> refers to inbuilt and automatic biological reactions which are evolutionary and equip humans to be able to respond to threats and maximize chances of survival, e.g., fight vs. flight. Instinct, however, is not guided by deep knowledge, prior learning, or expertise.

<u>Cognitive style</u> describes a decision maker's propensity, or preference, for using intuition or analysis, rather than whether they actually used them in practice.

<u>Guessing</u> is similar to intuition only in terms of its speed. Guessing does not produce affectively/emotionally charged judgments nor any kind of unconscious information processing, nor does it have the characteristic of certitude associated with intuitive decisions.

<u>*Heuristics*</u> are simple rules of thumb that facilitate and lead to a conscious form of judgement, whereas intuition is a form of direct knowing that occurs outside of the decision maker's conscious awareness.

<u>Insight</u> is seeing a solution, and being able to explain the underlying logic, elements, and the inter-relationships behind that solution. Hence, insight is conscious and can be explained. Insight can be gained through deliberate and effortful processes; intuition on the other hand, does not involve conscious, deliberate, and effortful information processing.

Study	<b>Operationalization of Intuition</b>	Data	Findings
Lou et al.	Expert intuition which comprises: (1)	Survey,	Intuition is positively associated with acquisition performance (both
(2024a)	extensive domain-specific	multiple	perceptual and objective)
	knowledge, (2)	informants,	
	pattern recognition, and (3)	objective	
	automaticity	and	
		perceptual acquisition	
		performance	
		data	
Kopalle,	Intuition is non-conscious and rapid,	Interviews	The authors derive a framework which reveals five roles of intuition in
Kuusela, &	based on experience and action scripts,	with CEOs	acquisition decision-making: synthesizing, estimating, scanning,
Lehman	uses mental stimulations, creates holistic		confirming, and energizing
(2023)	associations (big picture of the situation),		
	and employs feelings and associations		
Thanos	3 item intuitive synthesis scale	Survey,	Combining rationality and intuition at the same time leads to successful strategic decisions. In dynamic settings, teams which combine rationality
(2023)		single informant	and intuition outperform teams which use rationality or intuition separately
Calabretta,	Decision-making involving the following	Multiple case	The authors create a framework to help managers integrate both intuition
Gemser, &	characteristics: non-conscious, rapid, use	study	and rationality in strategic decision-making
Wijnberg	of action scripts, involving mental		
(2017)	simulation, forming holistic associations,		
	and relying on emotions and feelings		
Elbanna,	2 item self-report measure of intuition	Survey,	Intuition is positively related to decision disturbance (major negative
Child, &		single	unexpected decision outcomes), and the relationship is stronger in hostile
Dayan		informant	environments. Environmental uncertainty does not moderate the
(2013)			relationship between intuition and decision disturbance. Decision
			uncertainty and smaller firm size are both associated with intuition use

Table 1 Empirical Studies on Intuition in Strategic Decision-Making	
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Woiceshyn	Rapid use of experience and rationally	Interviews	Decision makers manage complex situations by combining rational
(2009)	classified knowledge	with CEOs	analysis with intuition
Elbanna &	3 item self-report measure of intuition	Survey,	Intuition has a non-significant relationship with decision effectiveness
Child		single	when controlling for decision process and context. When entered alone
(2007a)		informant	into the regression equation, it has a significant and negative relationship
			with decision effectiveness. The negative effect of intuition on decision
			effectiveness is weaker for companies with high performance than for
			those with low performance
Hough &	Myers-Briggs Type Indicator of	Experiment	Managers used their intuition and objective information to make high
ogilvie	psychological types		quality decisions
(2005)			
Sadler-Smith	Self-report measures of cognitive style	Survey,	There is a positive relationship between intuitive cognitive style and
(2004)		single	contemporaneous financial and non-financial performance, and a positive
		informant	relationship between intuitive cognitive style and subsequent financial
			performance. Environmental instability did not moderate these
			relationships
Clarke &	Experiential knowledge, complex	Cognitive	Intuition is used to 'cut through' a decision situation to form an
MacKaness	cognitive maps, and a questioning outlook	mapping	'unexplained' relationship between input and cognition without thinking
(2001)			in-depth
Covin,	4 item self-report measure of intuitive vs.	Survey,	Different configurations of decision style and organizational structure
Slevin, &	technocratic decision-making style	single	predict financial performance, and this varies according to whether the
Heeley		informant,	environment has a high or low level of technological sophistication
(2001)		secondary	
		data	
Khatri & Ng	3 item self-report measure of intuitive	Survey,	Intuitive synthesis has a positive effect on financial and non-financial
(2000)	synthesis	single	performance in an unstable environment. Intuitive synthesis has a
		informant	negative effect on financial and non-financial performance in stable to
			moderately stable environments
Wally &	6 item self-report measure of willingness	Survey,	Use of intuition is positively related to decision speed
Baum (1994)	to use intuition	single	
		informant	

 Table 2 Respondents and Organizations

Respondent	Job Title	Company Details	Sector
1	CEO	Structural and civil engineering consultancy, 50 employees, revenue \$1.36m.	Consultancy
2	Commercial Director	Building materials company, 13,000 employees, revenue \$3.4bn.	Manufacture of building materials
3	CFO	Recruitment consultancy specializing in senior financial positions and executive recruitment, 52 employees, revenue \$18m.	Consultancy
4	CFO	Pharmaceutical manufacturer, 1,300 employees, revenue \$218m.	Pharmaceuticals
5	CEO	Food services and facilities management, 37,000 employees, revenue \$1.6bn.	Facilities management
6	CEO	Chemical manufacturer, 200 employees, revenue \$150m.	Chemicals
7	CEO	Development of cancer treatments, 80 employees, revenue \$34m.	Health care
8	CEO	Technology consultancy, 120 employees, revenue \$35m.	Consultancy
9	CEO	Marketing agency, 190 employees, revenue \$15m.	Business services
10	CEO	Marketing agency, 400 employees, revenue \$150m.	Business services
11	CEO	Software developer, 60 employees, revenue \$14m.	IT
12	CEO	IT support services, 500 employees, revenue \$54m.	Business services
13	CEO	Design management information systems, 50 employees, revenue \$19m.	IT
14	CEO	Insurance, 60 employees, revenue \$8m.	Financial services
15	CEO	Retail technology consultancy, 270 employees, revenue \$16m.	Business services
16	CEO	Publisher, 7,500 employees, revenue \$2.5bn.	Printing and publishing
17	Chairperson	Accountancy, 24,000 employees, revenue \$5bn.	Professional services
18	CEO	Pharmaceutical manufacturer, 8,500 employees, revenue \$3.4bn.	Pharmaceuticals
19	CEO	IT and business consultancy, 100 employees, revenue \$12m.	Business services
20	CEO	Food processing and retailing, 137,000 employees, revenue \$22bn.	Wholesale
21	Head of Strategy	LPG gas supplier, 1,500 employees, revenue \$575m.	Wholesale
22	CEO	Electricity and gas supplier, 9,400 employees, revenue \$8bn.	Utilities
23	CEO	Professional membership organization, 65 employees, revenue \$8m.	Health social services
24	CFO	Sports media, 160 employees, revenue \$20m.	Media
25	COO	Provider of automotive financial services, 400 employees, revenue \$1.22bn.	Financial services
26	COO	Wireless technology services, 100 employees, revenue \$14m.	Communications
27	Chairperson	Accountancy and consultancy, 96 employees, revenue \$16m.	Professional services

Axial Code/Core Category	Open Codes/ Subthemes	Proof Quotations
Intuition triggers	Micro level (CEO/TMT): Core self- evaluations, cognitive style, cognitive diversity, expertise	"I fundamentally trust my intuition because I'm usually right more often than I'm wrong. I'm always prepared to bet as well, because I have that confidence in my gut-feelings." (CEO, Informant 5)
		"The key question is, what is the comfort level of the executives? With data and/or intuition? I'm probably more data driven. I like data and that's been the driving force for these decisions." (Chairperson, Informant 17)
		"When I joined, I found myself in a situation where no one would challenge me, and that's quite a dangerous thing really. I'm fairly confident in my decisions and intuitions, and that's why I felt it was essential to bring in people who will sort of challenge what I say and will challenge the decisions and ideas that I come up with." (CEO, Informant 22)
	Moderators: power centralization; team psychological safety	"Because generally, they're [other top managers] just reporting into me, I'm the CEO and at the end of the day, I decide the overall direction and the rules everybody plays by." (CEO, Informant 12)
		"We were all open, I don't think anybody had the slightest worry about saying what they felt and it wasn't confrontational." (CEO, Informant 23)
	Decision level: Framing (threat vs. opportunity), familiarity	"What's the risk level here? With this one [decision], this was something that could put us under, but we had to act—we simply couldn't not act, so we tried more to get as much data and rational analysis as possible." (CEO, Informant 16)
		"It was all to do with this decision being along the lines of what my experience is, it was aligned and I'd been there before, so to speak, and therefore I had kind of got a view despite what the evidence said and what other people said. But in the other example, I was investing in something new and you know, you're relying on market research and you're relying on other people's experiences, so there I tended to be more analytical." (CEO, Informant 7)
	Firm level: Performance levels/slack resources, firm size	"Because we've been going through a very hard time over the last three years, I've tended to use intuition more to make these decisions. I can only do what I feel is the right thing. Whereas in the past, say when things have been better, then I'm happy to go, you know, I'm more happy to go with the kind of analytical view. On the basis that if it goes wrong, it doesn't hurt so much." (CEO, Informant 19)

## **Table 3** Coding Framework – Intuition Triggers and Enhancers

	Moderators: Firm size	"When you get into large organizations where you've got a heavy reliance upon corporate governance, you know, corporate governance will rise to the fore, to the extent that it stifles the ability to act on intuition. So, the ability for me to have a bit of flair, act on my intuition based upon a deep knowledge of the business has become stifled because of a heavy dependence upon nonexecutives on the board who are there largely to risk-manage." (CEO, Informant 6)
		"When we've faced a tricky situation, I've always felt that's when you need an audit trail to demonstrate you've thought it through systematically." (Chairperson, Informant 17)
	Macro level: National culture, environmental hostility	"When I've worked in German businesses strategic decision-making is done through consensual board discussion, and it's heavily analytical. When I've worked in UK businesses, the culture is where the CEO certainly has the power to really be dominant and then there's the real scope to act on my intuition, and people tolerate that." (CEO, Informant 26)
		"We were operating in a tough environment, and it made us think and take the more analytical facts-based approach." (CEO, Informant 18)
Intuition enhancers	Micro level (CEO/TMT): Psychological Safety; Expertise; diversity in cognitive styles; power decentralization	"Even if it's a gut-feel decision it's fundamental the whole group buys into what you're trying to do, so that means involving everyone and creating that open atmosphere." (Chairperson, Informant 27)
		"It's having a lot of different mental models in my headI mean I've worked for Virgin, Shell, and Mercedes and I bring that to bear in my role here. So for me, I've developed loads of mental models and, they're relevant, complex, and so that means I'm more reliable when going with my intuitions." (CEO, Informant 14)
		"What's important is the kind of people that we've got making the decision because some are obviously influenced more by gut-feel if you like, if you want to call it that. Then others who might naturally be more regimented and go with the kind of analytical view. As CEO you've got to be aware of that at the outset and aim for a range of styles to reach a good decision." (CEO, Informant 8)
	Decision level: Time pressure, uncertainty,	"if you've got time to do some analysis, yes but there are times like this one when you haven't got time to do it and events are or you know, things were happening so quickly that we had to make a snap decision, and that's when intuition is most valuable." (CEO, Informant 19)
	decision matter (M&A)	"investing in an acquisition like this one, actually tend to end up being the no-brainers. The acquisition decision process was clouded and extended by ambiguity, which due diligence doesn't resolve. So, it was a no-brainer it was almost like buying a new camera." (CEO, Informant 14)
	Macro level: Sector, dynamism	"The type of company we are we're in a services industry and we probably are a bit more intuitive because again you're dealing with people—services firms are all about people." (CEO, Informant 10)

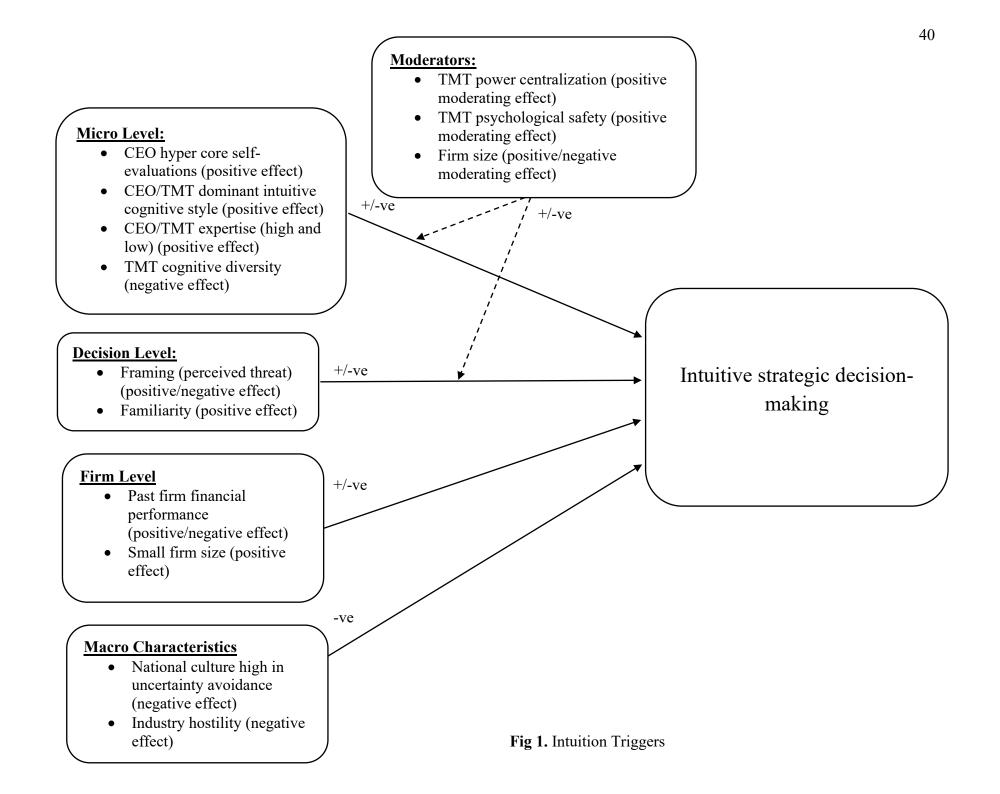
	"In our businesses, we have faced some turbulence in the market, that's when actually intuition is more important. Because of the pace of change and all the uncertainty that brings, you need intuition to join up the dots. If you go too heavy with the analytics that's it, the opportunity has gone," (Head of Strategy, Informant 21)
	too heavy with the analytics that's it, the opportunity has gone." (Head of Strategy, Informant 21)

### Table 4 Proposed Hypotheses

Intuition Triggers				
Micro-Level				
H1.	(A) CEO hyper core self-evaluations, (B) CEO/TMT dominant intuitive cognitive style, and (C) CEO/TMT high and low levels of expertise will each be positively related to the use of intuition in the strategic decision-making process.			
H2.	TMT cognitive diversity will be negatively related to the use of intuition in the strategic decision-making process.			
Н3.	The positive relationships between (A) CEO hyper core self-evaluations, (B) CEO dominant cognitive style, and (C) CEO high/low levels of expertise and the use of intuition in the strategic decision-making process will be positively moderated by TMT power centralization; such that with increases in power centralization the relationships will become more positive.			
Н4.	The positive relationships between (A) TMT dominant intuitive cognitive style and (B) TMT high/low levels of expertise and the use of intuition in the strategic decision-making process will be positively moderated by psychological safety; such that with increases in psychological safety the relationships will become more positive.			
<b>Decision-Level</b>				
Н5.	There will be an interactive effect between decisions framed as threats and firm size; such that in smaller firms threats will be positively related to the use of intuition in the strategic decision-making process, whereas in larger firms threats will be negatively related to the use of intuition in the strategic decision-making process.			
Н6.	There will be a positive relationship between decision familiarity and the use of intuition in the strategic decision-making process.			
Firm- and Macro-Level				
Н7.	Smaller firm size will be positively related to the use of intuition in the strategic decision-making process.			
Н8.	High uncertainty avoidance will be negatively related to the use of intuition in the strategic decision-making process.			
Н9.	Environmental hostility will be negatively related to the use of intuition in the strategic decision-making process.			
	Intuition Enhancers			
Micro-Level				
H10.	The positive relationship between intuition (both team-driven, and dominant actor-driven) and decision success will be positively moderated by expertise, such that with increases in expertise the relationship will become more positive.			

H11.	The positive relationship between team-driven intuition and decision success will be positively moderated by (A) diversity in			
	cognitive styles, (B) psychological safety, and (C) power decentralization; such that with increases in diversity of cognitive styles, psychological safety, and power decentralization the relationship between team-driven intuition and decision success			
	will become more positive.			
<b>Decision-Level</b>				
H12.	The positive relationship between intuition (both team-driven and dominant actor-driven) and decision success will be			
	positively moderated by (A) decision time pressure, (B) decision uncertainty, and (C) M&A decisions; such that with			
	increases in time pressure and uncertainty, and for M&A decisions, the relationship will become more positive.			
Industry-Level				
H13.	The positive relationships between intuition (both team-driven and dominant actor-driven) and decision success will be			
	positively moderated by (A) environmental dynamism and (B) services industries; such that with increases in dynamism an			
	for services industries, the relationship will become more positive.			

Note: We do not hypothesize a direct effect of past firm financial performance as there was no clear pattern of results.



	No	Yes
<i>Yes</i> Decision Success	Rational "Hits" Gut-feelings marginalized; opportunity/threat sensing derives from effortful conscious information processing and environmental scanning. KSFs: • Dominant rational cognitive style among decision-makers with suppression of intuitive judgments. • Stable environment which is "analyzable". Environmental hostility which places a premium on caution. Absence of time-pressure enabling rational processes. Firm resources available to finance external third-party advice. Manufacturing industries which lend themselves to rational processes.	Intuitive "Hits" Intuitive judgments contribute to the initial idea for the decision, or an intuitive response to an opportunity/threat identified via rationality, or intuition serves as the final "sense check" before commitment to implement. Opportunity and threat recognition and capture stems from the interaction between intuitive and rational decision-making. KSFs: • For dominant actor intuition: expertise. • For team driven intuition: expertise, diversity in cognitive styles, and psychological safety enabling the effective sharing, probing, and integration of team member intuitions; decentralized decision process. • For both dominant actor and team driven intuition: decision time pressure and uncertainty; M&A decisions; environmental dynamism; services industries.
No	<ul> <li>Rational processes overwhelmed by surfeit of information. Failure to seize opportunities and first mover advantages: "paralysis by analysis".</li> <li>KFFs:</li> <li>Dominant rational cognitive style among decision-makers with suppression of intuitive judgments.</li> <li>Decision time pressure and uncertainty overwhelms rationality; M&amp;A decisions which contain non-analyzable elements; environmental dynamism which renders information rapidly obsolete; services industries.</li> </ul>	<ul> <li>Excessive reliance on intuitive judgments as either the source of the initial idea for the decision, or as the final "sense check" before commitment to implement. Not using rational processes in concert with intuition or failure to integrate the intuitive judgments of team members leading to political behavior.</li> <li>KFFs:</li> <li>For dominant actor intuition: lack of expertise; centralized decision process.</li> <li>For team driven intuition: lack of expertise within the TMT, an imbalance in cognitive styles in the TMT—too many with an intuitive cognitive style leading to a failure to complement intuition with rationality and/or failure to convince others to understand and share one another's intuitive judgments.</li> <li>For both dominant actor and team driven intuition: new market entry which is fraught with "cognitive blind spots".</li> </ul>

Note: KSF = Key Success Factors. KFF = Key Failure Factors

Fig 2. Intuitive Hits and Misses

#### REFERENCES

- Aguinis, H., & Solarino, A. M. (2019). Transparency and replicability in qualitative research: The case of interviews with elite informants. *Strategic Management Journal*, 40(8), 1291–1315.
- Akinci, C., & Sadler-Smith, E. (2019). Collective intuition: Implications for improved decision making and organizational learning. *British Journal of Management*, *30*(3), 558–577.
- Baldacchino, L., Ucbasaran, D., & Cabantous, L. (2023). Linking experience to intuition and cognitive versatility in new venture ideation: a dual-process perspective. *Journal of Management Studies*, 60(5), 1105-1146.
- Bourgeois, L. J., III, & Eisenhardt, K. M. (1988). Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. *Management Science*, *34*(7), 816–835.
- Bryman, A., & Bell, E. (2011). Business research methods. New York: Oxford University Press.
- Calabretta, G., Gemser, G., & Wijnberg, N. M. (2017). The interplay between intuition and rationality in strategic decision-making: A paradox perspective. *Organization Studies*, *38*(3–4), 365–401.
- Clarke, I. and MacKaness, W. (2001). Management 'intuition': an interpretive account of structure and content of decision schemas using cognitive maps. *Journal of Management Studies*, 38, 147–172.
- Claxton, G., Owen, D., & Sadler-Smith, E. (2015). Hubris in leadership: A peril of unbridled intuition? *Leadership*, 11(1), 57-78.
- Covin, J. G., Slevin, D. P., & Heeley, M. B. (2001). Strategic decision making in an intuitive vs. technocratic mode: structural and environmental considerations. *Journal of Business Research*, 52(1), 51-67.
- Crossan, M. M., Lane, H. W., & White, R. E. (1999). An organizational learning framework: From intuition to institution. *Academy of Management Review*, 24(3), 522-537.
- Dane, E., & Pratt, M. G. (2007). Exploring intuition and its role in managerial decision making. *Academy of Management Review*, 32(1), 33–54.
- Dane, E., Rockmann, K. W., & Pratt, M. G. (2012). When should I trust my gut? Linking domain expertise to intuitive decision-making effectiveness. Organizational Behavior and Human Decision Processes, 119(2), 187–194.
- Dean, J. W., Jr., & Sharfman, M. P. (1996). Does decision process matter? A study of strategic decision-making effectiveness. Academy of Management Journal, 39(2), 368–392.
- Dean Jr, J. W., & Sharfman, M. P. (1993). Procedural rationality in the strategic decision-making process. *Journal of Management Studies*, *30*(4), 587-610.
- Denzin, N. K. (1989). *The research act: A theoretical introduction to sociological methods* (3<sup>rd</sup> ed.). Englewood Cliffs, NJ: Prentice Hall.
- Dörfler, V., & Ackermann, F. (2012). Understanding intuition: The case for two forms of intuition. *Management Learning*, 43(5), 545-564.
- Dreyfus, H. L., & Dreyfus, S. E. (2005). Expertise in real world contexts. *Organization Studies*, 26, 779–792.
- Edmondson, A. C., Roberto, M. A., & Watkins, M. D. (2003). A dynamic model of top management team effectiveness: Managing unstructured task streams. *The Leadership Quarterly*, 14, 297–325.
- Eisenhardt, K. M. (1999). Strategy as strategic decision making. *MIT Sloan Management Review*, 40(3), 65-72.

- Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 32, pp. 543–576.
- Eisenhardt, K. M., & Bourgeois III, L. J. (1988). Politics of strategic decision making in highvelocity environments: Toward a midrange theory. *Academy of Management Journal*, 31(4), 737-770.
- Elbanna, S. (2006). Strategic decision-making: Process perspectives. *International Journal of Management Reviews*, 8(1), 1-20.
- Elbanna, S., & Child, J. (2007a). Influences on strategic decision effectiveness: Development and test of an integrative model. *Strategic Management Journal*, 28(4), 431–453.
- Elbanna, S., & Child, J. (2007b). The influence of decision, environmental and firm characteristics on the rationality of strategic decision-making. *Journal of Management Studies*, 44(4), 561–591.
- Elbanna, S., Child, J., & Dayan, M. (2013). A model of antecedents and consequences of intuition in strategic decision-making: Evidence from Egypt. *Long Range Planning*, 46(1–2), 149–176.
- Epstein, S., Pacini, R., Denes-Raj, V., & Heier, H. (1996). Individual differences in intuitive– experiential and analytical–rational thinking styles. *Journal of Personality and Social Psychology*, 71(2), 390–405.
- Ericsson, K. A., & Charness, N. (1994). Expert performance. *American Psychologist*, 49, 725–747.
- Ericsson, K. A., & Lehman, A. C. (1996). Expert and exceptional performance: Evidence of maximal adaptation to task constraints. *Annual Review of Psychology*, 47, 273–305.
- Fiske, S. T., & Taylor, S. E. (1991). Social cognition (2nd ed.). New York: McGraw-Hill.
- Flanagan, J. C. (1954). The critical incident technique. Psychological Bulletin, 51(4), 327-358.
- Georgakakis, D., Heyden, M. L., Oehmichen, J. D., & Ekanayake, U. I. (2022). Four decades of CEO–TMT interface research: A review inspired by role theory. *The Leadership Quarterly*, 33(3), 101354.
- Glaser, B. G. (2013). Staying open: The use of theoretical codes in GT. *The Grounded Theory Review*, 12(1), 3–8.
- Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32, 334–343.
- Heyden, M. L., Sidhu, J. S., & Volberda, H. W. (2018). The conjoint influence of top and middle management characteristics on management innovation. *Journal of Management*, 44(4), 1505-1529.
- Hiller, N. J., & Hambrick, D. C. (2005). Conceptualizing executive hubris: The role of (hyper) core self-evaluations in strategic decision-making. *Strategic Management Journal*, *26*(4), 297–319.
- Hodgkinson, G. P., & Sadler-Smith, E. (2018). The dynamics of intuition and analysis in managerial and organizational decision making. Academy of Management Perspectives, 32(4), 473–492.
- Hodgkinson, G. P., Sadler-Smith, E., Burke, L. A., Claxton, G., & Sparrow, P. R. (2009). Intuition in organizations: implications for strategic management. *Long Range Planning*, 42, 277–297.
- Hough, J. R. & ogilvie, d. t. (2005). An empirical test of cognitive style and strategic decision outcomes. *Journal of Management Studies*, 42, 417–448.

- Kahneman, D. & Klein, G. (2009). Conditions for intuitive expertise. *American Psychologist*, 64, 515–526.
- Kahneman, D., & Klein, G. (2010). Strategic decisions: When can you trust your gut. *McKinsey Quarterly*, 13, 1-10.
- Khatri, N., & Ng, H. A. (2000). The role of intuition in strategic decision-making. *Human Relations*, 53(1), 57–86.
- Klein, G. A., Calderwood, R., & Clinton-Cirocco, A. (1986, September). *Rapid decision making on the fire ground*. Proceedings of the Human Factors Society Annual Meeting. Sage Publications: Los Angeles, CA.
- Klein, G. A., & Zsambok, C. E. (1997). Naturalistic Decision Making. L. Erlbaum Associates.
- Kopalle, P. K., Kuusela, H., & Lehmann, D. R. (2023). The role of intuition in CEO acquisition decisions. Forthcoming in *Journal of Business Research*, 167, 114139.
- Lou, B., Bauer, F., Samba, C., & Shepherd, N. G. (2024a). Transactive Memory Systems and Acquisition Performance: A Strategic Decision Making Process Perspective. Forthcoming in *Journal of Management Studies*.
- Lou, B., Shepherd, N. G., Strobl, A., & Bauer, F. (2024b). Playing Politics: An Upper Echelons' Perspective on Political Behavior During Acquisition Decision Making. Forthcoming in *British Journal of Management*.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded source book*. Thousand Oaks, CA: SAGE Publications.
- Miller, C. C., Burke, L. M., & Glick, W. H. (1998). Cognitive diversity among upper-echelon executives: Implications for strategic decision processes. *Strategic Management Journal*, 19, 39–58.
- Miller, C. C., & Ireland, R. D. (2005). Intuition in strategic decision making: Friend or foe in the fast-paced 21st century? *Academy of Management Perspectives*, 19(1), 19-30.
- Nutt, P. C., & Wilson, D. C. (2010). Discussion and implications: Toward creating a unified theory of decision making. In *Handbook of decision making* (pp. 645–677). Chichester, UK: Wiley.
- Papadakis, V. M., Lioukas, S., & Chambers, D. (1998). Strategic decision-making processes: the role of management and context. *Strategic Management Journal*, 19(2), 115-147.
- Pratt, M. G. (2008). Fitting oval pegs into round holes: Tensions in evaluating and publishing qualitative research in top-tier North American journals. Organizational Research Methods, 11(3), 481-509.
- Pratt, M. G. (2009). From the editors: For the lack of a boilerplate: Tips on writing up (and reviewing) qualitative research. *Academy of Management Journal*, 52(5), 856-862.
- Prietula, M. J., & Simon, H. A. (1989). The experts in your midst. *Harvard Business Review*, 67(1), 120-124.
- Rajagopalan, N., Rasheed, A. M., & Datta, D. K. (1993). Strategic decision processes: Critical review and future directions. *Journal of Management*, 19(2), 349–384.
- Sadler-Smith, E. (2004). Cognitive style and the management of small and medium-sized enterprises. *Organization Studies*, 25, 155–181.
- Sadler-Smith, E., & Shefy, E. (2004). The intuitive executive: Understanding and applying 'gut feel' in decision-making. *Academy of Management Perspectives*, 18(4), 76-91.
- Sadler-Smith, E., & Shefy, E. (2007). Developing intuitive awareness in management education. *Academy of Management Learning & Education*, 6(2), 186-205.

- Salas, E., Rosen, M. A., & DiazGranados, D. (2010). Expertise-based intuition and decision making in organizations. *Journal of Management*, 36, 941–973.
- Samba, C., Tabesh, P., Thanos, I. C., & Papadakis, V. M. (2021). Method in the madness? A meta-analysis on the strategic implications of decision comprehensiveness. *Strategic Organization*, 19(3), 414-440.
- Samba, C., Williams, D. W., & Fuller, R. M. (2022). The forms and use of intuition in top management teams. *The Leadership Quarterly*, 33, 1-14.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Harlow, UK: Pearson.
- Shapiro, S., & Spence, M. T. (1997). Managerial intuition: A conceptual and operational framework. *Business Horizons*, 40, 63–68.
- Shepherd, N. G., Hodgkinson, G. P., Mooi, E. A., Elbanna, S., & Rudd, J. M. (2020). Political behavior does not (always) undermine strategic decision-making: Theory and evidence. *Long Range Planning*, 53(5), 101943.
- Shepherd, N. G., Mooi, E. A., Elbanna, S., & Rudd, J. M. (2021). Deciding fast: Examining the relationship between strategic decision speed and decision quality across multiple environmental contexts. *European Management Review*, 18(2), 119-140.
- Shepherd, N., Mooi, E., Elbanna, S., & Lou, B. (2023). Fast and high-quality decision-making: The role of behavioral integration. *European Management Review*, 20, 679-697.
- Shepherd, N. G., & Rudd, J. M. (2014). The influence of context on the strategic decisionmaking process: A review of the literature. *International Journal of Management Reviews*, 16(3), 340–364.
- Silverman, D. (2007). *Doing qualitative research: A practical handbook*. London: SAGE Publications Limited.
- Simon, H. A. (1987). Making management decisions: The role of intuition and emotion. *Academy of Management Perspectives*, 1(1), 57–64.
- Simsek, Z., Heavey, C., & Fox, B. C. (2022). A managerial interfaces perspective for competitive action research. *Long Range Planning*, 55(3), 102141.
- Sinclair, M., & Ashkanasy, N. M. (2005). Intuition: myth or a decision-making tool? *Management Learning*, 36(3), 353–370.
- Stanovich, K. E., & West, R. F. (2000). Individual differences in reasoning: implications for the rationality debate? *Behavioral and Brain Sciences*, 23, 645–665.
- Strauss, A. (1987). *Qualitative analysis for social scientists*. Cambridge, MA: Cambridge University Press.
- Strauss, A., & Corbin, J. (1998). Basics of qualitative research: Techniques and procedures for developing grounded theory. Thousand Oaks, CA: SAGE Publications.
- Thanos, I. C. (2023). The complementary effects of rationality and intuition on strategic decision quality. *European Management Journal*, 41(3), 366-374.
- Van Doorn, S., Heyden, M. L., Reimer, M., Buyl, T., & Volberda, H. W. (2022). Internal and external interfaces of the executive suite: Advancing research on the porous bounds of strategic leadership. *Long Range Planning*, 55(3), 102214.
- Wally, S. and Baum, J. R. (1994). Personal and structural determinants of the pace of strategic decision making. *Academy of Management Journal*, 37, 932–956.
- Woiceshyn, J. (2009). Lessons from 'good Minds': how CEOs use intuition, analysis and guiding principles to make strategic decisions. *Long Range Planning*, 42, 298–319.