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## **Locus of control, moral awareness and gender in ethical decision-making: evidence from Syrian SMEs**

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**Abstract:** In the era of economic globalisation, ethical decision-making is considered a key component for Syrian entrepreneurs in SMEs, enabling them to create a positive business environment, attract investment, and foster trust, which in turn leads to sustainable trade in a recovering economy. This research investigates the impact of locus of control and moral awareness on ethical decision-making, focusing on the impact of gender on these relationships. The study included a total of 293 entrepreneurs, who were deliberately selected using purposive sampling techniques. The results show that locus of control and moral awareness have some significant positive effects on entrepreneurial ethical decision-making. Gender was not a significant moderator of the relationship between these variables, suggesting that the effects of these variables are similar for male and female entrepreneurs. This further supports the importance of locus of control and moral awareness as the primary drivers of ethical conduct among SMEs, irrespective of gender.

**Keywords:** female leader; sustainable growth; economic development; small enterprises; medium enterprises; economic globalisation.

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## 1 Introduction

SME entrepreneurs who participate in a globalised, positive-sum world system increasingly encounter emerging ethical challenges for SMEs that thrive/drive growth through possible incomes, wealth, and medals from global best practices. In a fast-changing environment, there is a need for action to reasonably reflect moral and ethical determinations, making principles (Franczukowska et al., 2021). However, maintaining the alignment between intended ethical standards and real-world actions can be extremely demanding, if not impossible, even for entrepreneurs with strong ethical awareness (Fichter, 2018). Unethical practices continue to be prevalent within organisations, as studies indicate that approximately 74% of employees have witnessed this type of behaviour in their workplaces (Jiang and Lin, 2021). In this respect, entrepreneurs are often driven by a strong inclination to uphold ethical standards in their business practices because they are accountable for tasks such as planning, strategy formulation, managing resources, competing in the market, making-decisions, and overseeing overall business operations (Kearney et al., 2019). Similarly, entrepreneurs are motivated to act ethically due to their responsibility for driving company development and growth, maximising profits, ensuring good returns for investors, enhancing customer loyalty with new products and services, and improving productivity by motivating employees (Belás et al., 2020).

Ethical decision-making (EDM) in SMEs is a critical area of study, as entrepreneurs often face unique challenges and pressures (Polas et al., 2022). Entrepreneurs (this includes business owners and managers) within small and medium-sized enterprises (SMEs), often encounter the difficulty of making critical decisions in complex and ambiguous circumstances where the ideal course of action is not always clear (Al-Taai, 2022; Al Halbusi et al., 2021). Ensuring that these choices are well-informed and ethical is important to address organisational issues and achieve sustainable success. However, more recent debates about corporate ethics suggest that most entrepreneurs lack enough training on how to responsibly confront issues that have serious ethical dimensions (Kelley, 2023). The current research on corporate and business ethics reveals that many entrepreneurs lack the necessary competencies to face issues of significant ethical impact

(Kelley, 2023). Both scholars and practitioners exhibit significant interest in empirical evidence on how individual difference variables influence EDM (Sturm, 2017; Thiel et al., 2018). While prior research has examined the effect of gender on ethical workplace perceptions and behaviour (McCabe et al., 2006; Romious et al., 2016), we have imported more recent work that advocates for greater consideration of the potential for gender to influence unethical decision-making alongside EDM (McCabe et al., 2006; Romious et al., 2016). This work in progress is anticipated to further enrich the theoretical and application side of this field (Wang et al., 2019; Taylor et al., 2019).

In the contemporary competitive business environment, no nation pursuing development can survive or grow without decent ethical conduct and clear goals (Fagbemi, 2020). The various roles of business owners and managers must not be ignored, as their actions and decisions have both positive and negative moral and ethical consequences on businesses, the economy, individuals, society, and the environment (Belás et al., 2020). The challenge of determining what is right and wrong is not confined to large corporations; it also affects the daily operations of small businesses (Robinson et al., 2007). Profitability in a company is closely tied to the decision-making abilities of its personnel. Consequently, significant research has focused on identifying factors associated with strong decision-makers (Bridges, 2018; George and Rose, 2023; Glyde, 2019). This article applied the EDM model to gain a deeper and more detailed insight into how entrepreneurs in Syrian SMEs address ethical challenges encountered in their everyday operations.

The extent to which variables such as moral awareness and locus of control predict the decision-making practices of entrepreneurs remains unknown. The present study, therefore, attempts to address some of the gaps in the established knowledge on EDM by investigating the association between moral awareness and locus of control in the context of EDM within the entrepreneur community. It aims to provide new empirical insights into assessing the theoretical basis of these ideas. Furthermore, this current research enhances our understanding of EDM by examining the moderating role of gender on the relationship between moral locus of control and EDM. Such an integration offers a detailed insight into the role of individual differences in EDM in entrepreneurial settings.

## **2 Literature review**

Many factors interact when an entrepreneur makes decisions, influencing the outcome in various ways. Given the multifaceted nature of the decision-making process, entrepreneurs must consider moral awareness, locus of control, and other factors to make effective ethical decisions. Thus, the literature review focuses on the ethical issues that arise in business and the subsequent entrepreneurial frameworks that facilitate EDM (Anderson and Burchell, 2021; Arslan et al., 2018). The review also delves into the effect of decision-making on business outcomes, environmental sustainability, and social well-being. Moreover, the review discusses how gender and other socio-demographic factors affect the EDM of entrepreneurs in the SME sector (Kelley, 2023; Loe et al., 2000). Collectively, these factors offer a window into the extent to which context and personal characteristics influence ethical acts and behaviour.

The EDM model has been used in a number of research in the literature to investigate different aspects that impact EDM processes (Craft, 2013; O'Fallon and Butterfield, 2005; Schwartz, 2015). Rest (1986) developed an EDM model based on psychological

and sociological theoretical foundations (Guo, 2019), which was informed by empirical studies of behaviours in various social contexts. EDM demonstrates how traits can greatly affect EDM, with moral awareness and locus of control being intrinsic traits (Fagbemi, 2020). The question that arises here is whether individuals with an internal locus of control have higher awareness of ethical issues and respond with ethical judgement. Moral awareness is the driving force behind EDM, which is an essential first step in developing ethical sensitivity (Lim et al., 2023). The moral decision-making model proposed by Rest (1986) has four constructs:

- Moral sensitivity: the awareness and recognition of the ethical issue.
- Moral judgement: the decision that the correct resolution of the issue is the right course of action.
- Moral motivation: prioritising moral values over others.
- Moral character: the capacity to perform based on ethical values.

The model views moral awareness as central to the entire process of making an ethical decision and its subsequent evaluation. Moral awareness, or the ability to perceive ethical aspects, is vital in the EDM process because it encourages people to reflect and think on the ethical consequences of an issue. These various elements combine to influence EDM by how they influence how people ‘perceive,’ ‘evaluate,’ and ‘respond’ to ethical dilemmas.

## 2.1 Hypotheses development

### 2.1.1 Locus of control

Locus of control is a psychological construct that describes the way in which individuals perceive the causes of the outcomes they experience in their lives (Rotter, 1966). Internal and external control as critical elements explaining human behaviour in organisations. It is a personality characteristic that can refer to an individual’s internal or external orientation (Fagbola and Popoola, 2016). Locus of control is a psychological concept that represents an individual’s belief about what controls events in his or her life and can be a range with internal locus of control (the belief that one is responsible for one’s outcomes) at one end and external locus of control (the belief that outside forces such as luck, fate, or other people are to blame for one’s experiences) at the other end (Rotter, 1966). Locus of control is indeed a key to understanding human behaviour within organisations. It is the trait continuum as to where a person’s attention is directed – inward or outward (Fagbola and Popoola, 2016).

People with a high internal locus of control often take personal responsibility for their successes and failures, have higher levels of self-efficacy, and believe that if they work hard, they will achieve their goals, and they believe that their actions can influence and shape the events surrounding them (Hamzah and Othman, 2023). People who believe that they can control or influence what happens to them, and that their decisions can lead to a moral determination of what is right and wrong, have an internal locus of control (Rotter, 1966). People in these groups meticulously collect information before making decisions, are highly motivated to achieve, and invest extra effort in controlling their environment (Fagbemi, 2020). On the contrary, people who possess an external locus of control believe that luck, fate, power, or others’ external control determines their lives, leading

them to believe they have little control over life events and their destiny (Rotter, 1966). In this context, having an internal locus of control is essential for influencing a person's desire to pursue a sustained career in entrepreneurship (Hamzah and Othman, 2023).

The effect of learning styles and locus of control on decision-making styles of leader-managers was studied by Akyürek and Guney (2018). Results reveal that leader-managers are more likely to display rational decision styles and that locus of control was a partial factor that impacts the aforementioned relationship. O'Fallon and Butterfield (2013) found that individuals with an internal locus of control tend to demonstrate more effective decision-making, whereas those with an external locus of control generally exhibit poorer decision-making. Nonetheless, Ratna and Tenriwaru (2016) argue that locus of control does not significantly impact the unethical behaviour of the auditor. Srimindarti and Widati (2015) examined how internal and external locus of control, along with organisational commitment, influences the acceptance of dysfunctional audit behaviour. Their findings revealed that an external locus of control positively correlates with a higher acceptance of dysfunctional audit behaviours, while both internal locus of control and organisational commitment are negatively associated with such acceptance. The internal locus of control, as revealed by Fagbemi (2020), does not exert an effect on auditors' EDM, whereas the external locus of control has a significant effect. Based on this empirical evidence, the hypothesis is proposed as follows:

H1 Locus of control positively and significantly impacts EDM among entrepreneurs in Syrian SMEs.

### *2.1.2 Moral awareness*

According to Rest (1986), recognising moral awareness is essential in influencing ethical evaluations throughout the EDM process within an organisation. Rest's (1986) EDM model articulates the relationship between moral awareness and the process of making an ethical decision. Moral awareness refers to the perception of being aware of a moral issue, which can be perceived morally (Wurthmann, 2017). Moral awareness is the extent to which people recognise that a situation contains a moral issue (Miles, 2019). Moral awareness is what triggers the rational EDM process (Jones, 1991; Rest, 1986; Tenbrunsel and Smith-Crowe, 2008). Suppose a person or group of people does not become morally aware by recognising that the decision they are making has an ethical component. In that case, they will not initiate the rational EDM process and will not make their decision within an ethical framework (Miles, 2019). This is particularly important because people approach moral and amoral issues differently (Tenbrunsel and Smith-Crowe, 2008). Therefore, moral awareness is important to ethical decision making because if people do not become aware that the decision they are making has an ethical component then their decision-making will not involve a consideration of the ethical implications of the decision and they will not engage an ethical lens in making the decision (Jones, 1991; Rest, 1986; Tenbrunsel and Smith-Crowe, 2008). As such, increased moral awareness should lead to reduced unethical behaviour.

Researchers have identified that moral awareness can reduce unethical decision-making practices (Hebert-Immel, 2019). The current study underscores that moral awareness is a contributing key factor in EDM, as evidenced by later studies of business professionals (Butterfield et al., 2000) and members of the American Marketing

Association. Butterfield et al. (2000) describe it as the ability to recognise when a decision or behaviour has implications for the interests, well-being, or expectations of oneself or others that could be inconsistent with generally accepted ethical principles. This recognition is critical, as EDM is strongly influenced by the individual's capacity for moral awareness, which serves as the foundation for identifying and addressing ethical dilemmas effectively (Casali and Perano, 2021). However, Lim et al. (2023) highlight that the current literature offers limited theoretical development and empirical support regarding the link between moral awareness and ethical behaviour (or EDM). Together, the definitions and previous studies provide a foundation for suggesting a direct link between moral awareness and EDM among entrepreneurs. Based on this, the study puts forward the following hypothesis:

H2 Moral awareness positively and significantly impacts EDM among entrepreneurs in Syrian SMEs.

### 2.1.3 Gender

Recent literature highlights gender-related differences in how ethical and unethical decisions are made within organisations (Kelley, 2023). Building on prior research on gender in morality and ethics (O'Fallon and Butterfield, 2005; Samnani et al., 2014), this study investigates how gender influences the relationships between locus of control, moral awareness, and EDM. Consistent with extensive research showing that individuals' identities significantly shape their beliefs, attitudes, and behaviours (Leary and Tangney, 2003), the expectations tied to the leader role can affect leaders' approach to EDM (Hoyt and Price, 2015). This influence is explained by Hoyt and Price's social role theory of unethical leadership (Hoyt et al., 2010, 2013). Social roles connect individuals to their social contexts by establishing widely shared expectations for behaviour. Social role theory posits that enduring gender stereotypes arise from societal gender-based divisions of labour (Ridgeway, 2001). In Western cultures, men's dominance in high-status, agentic paid roles and women's assignment to communal, nurturant positions have fostered stereotypes linking agency to men and communion to women. Moreover, this gendered labour division cultivates distinct skills in men and women (Ridgeway, 2001). In marketing, gender significantly influences individuals' decision-making processes (Lim et al., 2023). Lund (2008) indicated that female marketing professionals are more inclined to make ethical marketing decisions than their male counterparts. Consequently, female directors in the SME sector exhibit distinct decision-making processes compared to their male counterparts (Breukelen, 2014) with female managers demonstrating stronger ethical intentions than males (Marta et al., 2008).

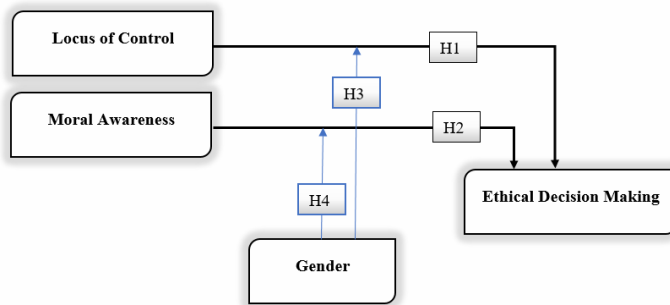
Demographic factors have been suggested to influence ethical behaviour; however, research findings on this relationship have been inconsistent (Fagbemi, 2020). Sturm (2017) states that gender-based personality differences significantly influence EDM. Some studies provide empirical support suggesting women tend to be more ethical than men (Ameen et al., 1996; Singhapakdi, 1999). Research on EDM acknowledges that differences based on gender in morality-related decision-making are well-established (Samnani et al., 2014). According to Detert et al. (2008), gender differences may become more pronounced when moral disengagement, a cognitive mechanism that enables unethical behaviour, is taken into account. Women generally demonstrate lower levels of moral disengagement, which in turn influences their unethical conduct. Empirical studies

indicate that there is no significant difference in ethical perceptions and decision-making between males and females based solely on gender (Koopman et al., 2019). In a similar study, Ajibolade et al. (2014) analysed the link between gender and attitudes toward ethical behaviour among Nigerian managers, concluding that there is no difference in attitudes between males and females regarding business ethics.

According to Byrne and Worthy (2016), men generally exhibit a slightly higher level of impulsiveness in their decision-making than women. In addition, variations in psychological traits between genders suggest that differences in EDM may stem from social-role expectations regarding gender-specific characteristics (Hoyt and Price, 2015; Lee et al., 2019). These findings underscore the need for further exploration of individual differences that influence EDM (Kelley, 2023). Therefore, the literature presents mixed findings regarding the influence of gender on EDM (Lim et al., 2023; O’Fallon and Butterfield, 2013). Moreover, there is limited research examining gender as a moderator in the relationship between moral awareness, locus of control, and EDM. To address this gap, this study suggests that gender – defined broadly as an individual’s identification as female or male – may influence the relationship between moral awareness and locus of control in EDM. Preliminary evidence from other contexts supports this argument. Therefore, the study proposes the following hypotheses:

- H3 Gender moderates the relationship between locus of control and EDM among entrepreneurs in Syrian SMEs.
- H4 Gender moderates the relationship between moral awareness and EDM among entrepreneurs in Syrian SMEs.

**Figure 1** Conceptual framework (see online version for colours)



### 3 Method

#### 3.1 Design, participants, and data collection

The study employed a quantitative correlational design to investigate EDM. This method enabled the researchers to examine and quantify relationships between variables, providing insights into the dynamics of EDM processes. This research involves surveying a group of Syrian entrepreneurs who own or manage small and medium-sized retail and trade businesses officially registered with the Syrian Ministry of Trade. This sample consisted of 293 successful entrepreneurs. An effective entrepreneur is a business owner

who successfully navigates numerous challenges and hurdles, while maintaining their ability to thrive in tough circumstances (Arasti et al., 2014).

This study utilised a purposive sampling approach, focusing on entrepreneurs aged 25 to 65 years. Purposive sampling was suitable as it enabled the researchers to intentionally choose individuals who possess the most knowledge and experience related to the subject under investigation, EDM in SMEs. Data was collected using questionnaires administered through SurveyMonkey. Before participation, informed consent was obtained from all respondents. The researcher provided a comprehensive explanation of the study's purpose, data collection procedures, tools, and any associated risks to ensure transparency. It was emphasised that participation was entirely voluntary, and respondents were assured there would be no negative consequences for choosing not to participate.

### *3.2 Scale development and survey items*

To achieve the research objectives, this study utilised primary data collected through a well-structured questionnaire. The survey was conducted among entrepreneurs managing SMEs located in Damascus, Syria. The questionnaire comprised two main sections. The focus of the first part was on descriptive statistics of the respondents' social-demographic background information, and the second section was designed to evaluate EDM and its determinants. Participants' responses were recorded using a Likert scale format, allowing for a systematic analysis of their perspectives.

The questionnaire instrument was developed based on existing studies, with moral awareness items modified from Lim et al. (2023), locus of control items adapted from Fagbemi (2020), and sets of EDM from Lim et al. (2023), all of which were adapted to the specific context of the present study. All constructs were measured on a five-point Likert scale. A total of 238 valid questionnaire responses were collected, and the relationship between the constructs was analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM). In contrast to the traditional test-based structural equation model (CB-SEM), PLS-SEM is reported to deliver robust estimates with relatively fewer samples than the number of constructs it models (Lim et al., 2023). Analyses were conducted with the complete unstandardised data set in SmartPLS 4 in a two-step procedure, in which the validation of the outer model, (i.e., measurement model – convergent and discriminant validity, construct reliability) was performed prior to the evaluation of the inner model, (i.e., structural model), tested by path analysis examining relationships between the constructs (Hair et al., 2021). SmartPLS 4.0 provides a deep insight into measurement and structural models, as well as a detailed description of the complex relationships among LOC, moral awareness, and EDM in Syrian SME entrepreneurs (Haque et al., 2024). The results of this analysis are described in the following section.

## **4 Results**

### *4.1 Demographic*

Most of the entrepreneurs who participated in the study were male (72.6%), and the most recurring age group of the sample was 35 to 44 years old. A sizeable proportion of these

entrepreneurs was graduates (45.2%) and had 3 to 10 years of experience in managing an SME (63.3%). Moreover, a significant portion of the SMEs included in the survey were quite small, with 57.8% having a workforce ranging from 1 to 50 employees.

#### 4.2 Measurement model

This study employed PLS-SEM with SmartPLS 4.0 to assess the effects of moral awareness and locus of control on EDM (see Figure 2). The statistical properties of the SEM model – specifically reliability, discriminant validity, and variance analysis – are described to establish the internal validity and reliability of the reflective constructs. Table 1 reports the internal consistency for EDM, locus of control, and moral awareness constructs, with composite reliability (CR) and Cronbach's alpha ( $\alpha$ ) values consistently exceeding the recommended 0.70 threshold (Bhalla et al., 2022; Osman et al., 2024). These results confirm the high internal consistency and measurement quality within the model.

Factor loadings, along with the average variance extracted (AVE), are employed to evaluate the convergent validity of constructs (Bhalla et al., 2022). To confirm that the explained variance is greater than the measurement error, both the factor loadings and AVE values must exceed the minimum threshold of 0.50 (Bagozzi et al., 1991). In this study, AVE values range from 0.639 to 0.768 (see Table 1), all of which exceed the 0.50 benchmark. Additionally, factor loadings for items within their respective constructs exceed 0.6 (Bhalla et al., 2022), supporting the convergent validity of the measures.

**Table 1** Construct reliability and validity

<i>Factors</i>	<i>Factor loading</i>	<i>Cronbach's alpha</i>	<i>Rho_A</i>	<i>Composite reliability</i>	<i>AVE</i>
Ethical decision making		0.859	0.862	0.899	0.639
1 I strive to avoid practices that may unfairly harm competitors or exploit market conditions.	0.796				
2 I ensure that the products and services my business offers are safe and meet their intended purposes.	0.774				
3 I avoid providing false or misleading information about my business's offerings.	0.828				
4 I refrain from using manipulative or high-pressure tactics in business negotiations or transactions.	0.793				
5 I aim to promote my business through honest and ethical means, avoiding any deceptive or manipulative practices.	0.806				

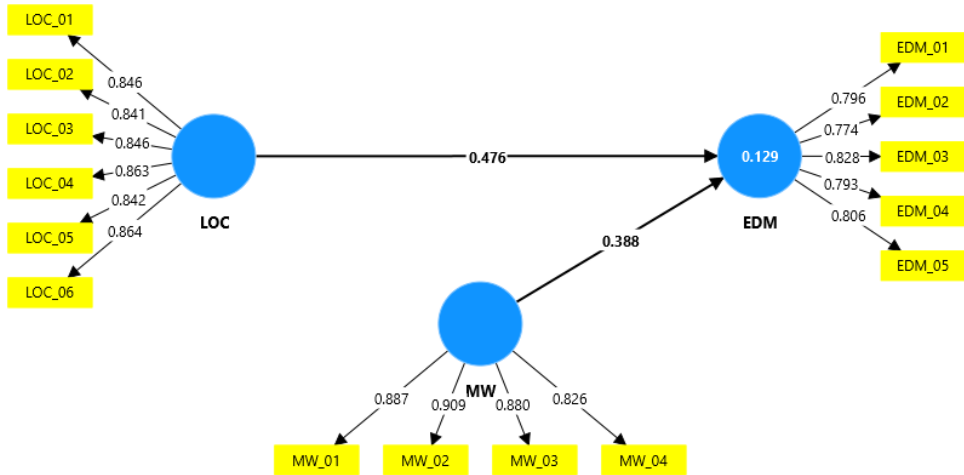
**Table 1** Construct reliability and validity (continued)

<i>Factors</i>	<i>Factor loading</i>	<i>Cronbach's alpha</i>	<i>Rho_A</i>	<i>Composite reliability</i>	<i>AVE</i>
Locus of control		0.924	0.925	0.940	0.724
1 I proactively gather information prior to making decisions.	0.846				
2 I anticipate potential challenges and take steps to prevent them.	0.841				
3 I take full responsibility for handling my own mistakes and problems.	0.846				
4 Success depends on hard work, with luck playing little or no role.	0.863				
5 I am confident in my ability to effectively manage future difficulties.	0.842				
6 The effort I put in is directly linked to the results I achieve.	0.864				
Moral awareness		0.904	0.958	0.930	0.768
1 Unethical decisions can harm a company's reputation.	0.887				
2 Unethical decisions can lead to a decrease in a company's revenue.	0.909				
3 Unethical decisions can negatively impact a company's overall performance.	0.880				
4 In general, unethical decisions can lead to various negative outcomes.	0.826				

**Table 2** Discriminant validity

<i>Fornell-Larcker criterion</i>			
	<i>Ethical decision making</i>	<i>Locus of control</i>	<i>Moral awareness</i>
Ethical decision making	0.800		
Locus of control	0.215	0.851	
Moral awareness	0.068	0.672	0.876
<i>Heterotrait-monotrait ratio (HTMT)</i>			
Ethical decision making			
Locus of control	0.238		
Moral awareness	0.075	0.744	

**Figure 2** Measurement model (see online version for colours)



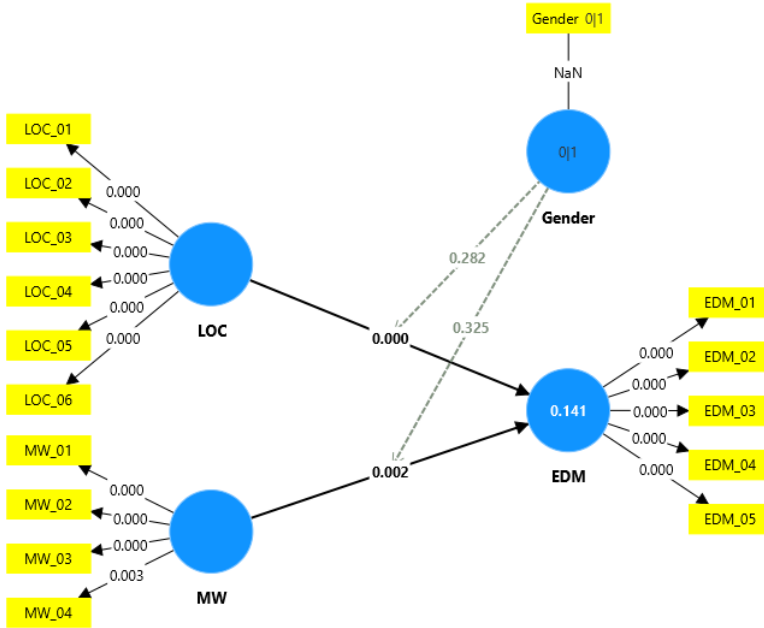
Discriminant validity was assessed by analysing the square root of the AVE values, adhering to the guideline that these values should surpass the correlations observed between constructs (Hair, 2011; Hair et al., 2011), as illustrated in Table 2 and Figure 2. The results indicate that the reflective constructs demonstrate discriminant validity. Furthermore, the heterotrait-monotrait ratio, which assesses the degree of similarity among latent variables, remains below the 0.9 threshold across all constructs, further validating the model’s discriminant validity (Bhalla et al., 2022).

### 4.3 Structural model

The study explored the effects of locus of control and moral awareness on EDM among entrepreneurs, examining the moderating role of gender in these relationships. Analysis using the PLS-SEM model (Figure 3) demonstrated a positive impact of both locus of control and moral awareness on EDM. The results revealed that there were no notable differences between genders in terms of how locus of control and moral awareness affected EDM outcomes. This suggests that gender does not significantly change the way these factors impact ethical choices – these dynamics function similarly for both male and female participants. In essence, although psychological elements such as locus of control and moral awareness are critical influences on EDM, their effects appear to remain stable, regardless of gender, within this entrepreneurial setting. The gender differences in the relationship between locus of control and moral awareness, as well as the outcomes of ethical decisions, were not found to be significant. This means that the effects of the variables on ethical judgements do not vary by gender; they work similarly in both male and female subjects. In short, the psychological antecedents, locus of control, and moral awareness do matter for mediating our EDM process. However, their effects appear uniform across genders in this entrepreneurial setting.

Table 3 presents the path coefficient results for the model used to analyse the effects of locus of control and moral awareness on EDM among entrepreneurs. The analysis of the provided results highlights the following key findings regarding the predictors of EDM:

**Figure 3** PLS-SEM model (see online version for colours)



**Table 3** Structural model analysis

		Original sample (O)	Sample mean (M)	SD	T statistics	P values	Empirical analysis
H1	LOC → EDM	0.442	0.428	0.091	4.854	0.000	Supported
H2	MW → EDM	0.370	0.348	0.125	2.956	0.002	Supported
H3	Gender x MW → EDM	0.058	0.054	0.129	0.453	0.325	Not supported
H4	Gender x LOC → EDM	0.061	0.057	0.106	0.576	0.282	Not supported

The study highlights the impact of gender, locus of control (LOC), and moral awareness (MW) on EDM among entrepreneurs. LOC showed a strong and significant positive effect on EDM ( $\beta = 0.442, T = 4.854, p = 0.000$ ), indicating that individuals with a stronger internal LOC are more likely to make ethical decisions. Similarly, MW demonstrated a significant positive influence on EDM ( $\beta = 0.37, T = 2.956, p = 0.002$ ), emphasising the role of moral awareness in fostering ethical behaviour. However, the interaction effects between gender and the predictors (MW and LOC) were found to be insignificant. The interaction of gender with MW ( $\beta = 0.058, T = 0.453, p = 0.325$ ) and with LOC ( $\beta = 0.061, T = 0.576, p = 0.282$ ) did not show significant moderation effects. This suggests that the positive relationships between LOC, MW, and EDM are consistent across genders. In conclusion, while LOC and MW emerged as critical predictors of EDM, gender exerted a direct but negative effect. The lack of significant moderation effects indicates that the influence of LOC and MW on EDM does not vary between male and female entrepreneurs, providing important implications for enhancing EDM in SMEs.

## 5 Discussion

The current study examined the relationship between two independent variables and a dependent variable. The examination of the predictability of moral awareness and locus of control in decision-making is deemed beneficial. The intent was to determine the predictability of the independent variables and provide further knowledge about decision-making practices among entrepreneurs. The study revealed that moral awareness is significant when considering the predictive ability in decision-making. The study results strengthened previous research findings on the relationship between moral awareness and decision-making, identifying a significant correlation between the two. The predictable relationship between moral awareness and decision-making in the study supports the findings of Sturm (2017), Wurthmann (2017), and Hebert-Immel (2019), which suggest that moral awareness is an integral part of decision-making. A study conducted by Sturm (2014) found that moral awareness of the situation was found to have positive associations with EDM.

Likewise, the study's findings on moral awareness reinforce Rest's (1986) four components of moral decision-making, which identify moral awareness as the first step. The predictability of moral awareness identified in the study supports the notion that moral awareness is a significant factor in decision-making. The consistency of the study regarding moral awareness reinforces the role morality plays in decision making, but further research is needed because gaps still exist (Hebert-Immel, 2019). As Jones (1991) and Rest (1986) argue, moral decision-making theories suggest that moral consciousness plays a crucial role in determining whether conduct is ethical or not. For example, Reynolds (2006) notes that one of the root causes of the well-known ethical failures of some large companies is their lack of moral awareness.

The second hypothesis (H2) of the current study was to examine the relation between LOC and decision-making among entrepreneurs. The results seem to indicate that entrepreneurs with a greater internal LOC are more likely to engage in effective decision-making activities. Other studies have also supported this finding, proving the relationship between locus of control and decision-making skills. For example, Neves (1989) discovered that nursing students with an internal locus of control tended to be self-directive and made their own decision independently. This implies that the internal-external locus of control affects the extent to which the nursing students are independent decision-makers. In general, therefore, locus of control may be seen as a predominant determinant of autonomy in decision-making in nursing students. On a similar note, Sukan et al. (2016) studied the association between locus of control and decision-making styles among soccer referees, revealing a relationship between these two variables. They concluded that there was a direct relationship between locus of control and perceived maternal attitudes and decision-making style. However, these findings contradict previous research, (i.e., Thompson, 2010; Hornaday and Curran, 1987), which found no relationship.

The gender does not moderate the association between LOC, MW, and EDM, as revealed by our study. All the path coefficients were very minimal, and p-values were at least one order of magnitude greater than the 0.05 significance threshold (multiple tests failed when corrected for multiple comparisons). The research found no significant moderation effect of gender on the relationship between locus of control, moral awareness, and EDM. The path coefficients were close to zero, and the p-values were much larger than a typical acceptable significance level (e.g., 0.05). This means that there

is no effect of gender on the relationships between LOC, moral awareness, and processing EDM. It assumes that these variables are commonly applicable to both males and females without any moderation. In cases where gender does not significantly impact the study, the relationship between the explanatory variables (locus of control and moral awareness) and the dependent variable (ethical decision) remains unchanged, regardless of sex. This finding can be understood by considering the contextual characteristics of the study setting. In the Syrian SME context which is characterised by economic instability, resource constraints, and high environmental uncertainty, survival-oriented decision making may overshadow gender-based differences in ethical cognition. Entrepreneurs, regardless of gender, are often required to rely heavily on personal agency, resilience, and internal control to navigate institutional voids and operational risks. Consequently, locus of control and moral awareness emerge as dominant drivers of ethical decision making, reducing the relative explanatory power of demographic variables such as gender. This outcome contrasts with previous studies that have highlighted gender as a crucial factor influencing EDM (Hwang et al., 2019; Roux et al., 2017; Shahid and Paul, 2021). Thompson (2010) identified significant links between an individual's preferred decision-making style and gender, reporting that a notably higher proportion of females (18%) favoured the behavioural decision style compared to males (2.4%). Hence, additional research is needed to gain a deeper understanding and further support this finding.

## **6 Conclusions**

EDM remains a critical concern within the business community, despite previous research indicating that unethical decision-making can damage an organisation's ability to attain longevity and tarnish the reputation of the business community (Craft, 2013; Hebert-Immel, 2019; Sturm, 2017; Weber, 2015). The results indicate that moral awareness and locus of control have a predictive nature in decision-making. Interpreting the results is essential to draw conclusions. Providing clarification of the results through a comparison of the findings with the theoretical framework and previous literature bestows additional insight that strengthens the interpretation of the results. Identifying how the results may be influential to different facets of society is essential. Correctly interpreting the findings provides credible conclusions that may be beneficial to theory, practitioners, and organisations. The findings of the study reinforce the belief that moral awareness is fundamental for EDM. Enhancing entrepreneurs of unethical behaviour in the business community may occur by creating an environment that encourages moral awareness. Scholars and practitioners can introduce moral awareness in their environments. Within SMEs, the fostering of moral awareness can influence entrepreneurs' decision-making. Creating moral awareness among entrepreneurs would be beneficial in changing the trend of unethical practices in the business community.

Despite its significance, moral awareness in business has been considerably less explored in research compared to other components of the EDM process (Wurthmann, 2017). For instance, recent reviews of empirical studies on EDM have highlighted that moral awareness is the least examined element within this process (Craft, 2013; O'Fallon and Butterfield, 2005). Moreover, only a limited number of studies have investigated how individual differences in moral beliefs and issue characteristics influence moral awareness, or extended their analysis to explore how these factors relate to other aspects

of EDM (Wurthmann, 2017). While the research hypotheses received limited support, the study's findings hold significance from both scholarly and practical perspectives. Academically, the results contribute to existing literature by offering deeper insights into the extent to which the independent variables predict rule-based decision-making. From a practical standpoint, the findings provide valuable knowledge for the business community, particularly for entrepreneurs and decision-makers, offering actionable insights that can enhance their decision-making processes. Furthermore, research aimed at better understanding the fundamental factors behind cognitive processes, like selective attention to issues linked to moral awareness and other outcomes in EDM in business, can offer valuable insights into the reasons behind unethical behaviour in corporations. These insights complement findings from studies focused on other individual-level factors, such as demographics, education, experience, or nationality. Such knowledge could assist SMEs in identifying the root causes of ethical sensitivity weaknesses among key entrepreneurs and in developing strategies to address and reduce these weaknesses.

This study suggests that organisations should prioritise comprehensive ethics training and development programs that specifically strengthen employees' sense of personal responsibility (locus of control) and their ability to recognise ethical issues (moral awareness). By cultivating these qualities in the workforce, companies can foster a culture of integrity and accountability, leading to more consistent EDM throughout the organisation. Importantly, since gender does not significantly alter the effects of these factors, such initiatives can be rolled out across the board, ensuring equal support for all employees. This inclusive approach not only streamlines training efforts but also emphasises fairness and equal opportunity, ultimately contributing to a more ethical and cohesive organisational environment. Theoretically, this study contributes by showing that gender does not serve as a consistent moderator in EDM frameworks, especially among entrepreneurs in emerging or crisis-hit economies. Rather, the results highlight individual cognitive-moral traits (locus of control and moral awareness) as more dominant predictors of ethical decisions than gender for Syrian SME owners. These insights clarify conflicting prior results and underscore the need for enhanced contextual specificity in future gender-focused ethics studies.

From a practical standpoint, these findings equip Syrian SME owners, managers, and trainers with targeted strategies to cultivate moral awareness and internal locus of control amid economic volatility. Moral awareness can be enhanced through routine ethics discussions and scenario-based training embedded in managerial workflows, drawing on authentic local dilemmas such as equitable employee treatment, transparent pricing, and resource allocation under sanctions. Concurrently, internal locus of control can be nurtured via leadership coaching programs that promote personal accountability, ownership of decisions, and reflective practices linking individual actions to business results. Integrating straightforward EDM frameworks, such as checklists for spotting moral issues, assessing personal agency, and weighing stakeholder consequences, into everyday operations empowers SMEs to consistently apply ethical principles in practice.

## **Declarations**

The authors declare that the manuscript was written and revised entirely by themselves, without the assistance of any machine learning or artificial intelligence in creating the content. However, AI tools such as Grammarly and OpenAI were employed solely to

check typos and grammatical automated proofreading, the manuscript underwent a through manual review by all authors to ensure accuracy and prevent any content misrepresentation.

The authors declare that they have no competing interests.

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