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## Women's empowerment and innovations in work behaviour: based on the kaleidoscope model

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**Abstract:** The research aimed to examine the impact of women's empowerment (WE) on innovative work behaviour (IWB) through the mediating role of both creative process engagement (CPE) and the kaleidoscope model, as well as the moderating role of organisational policy (OP). Purposive sampling methods were used to collect data from 499 Saudi Arabian women who hold positions in the governmental and commercial sectors. Smart partial least squares-structural equation modelling was used to verify the results. The study found that empowering women is strongly linked to more innovative approaches to the workplace. Kaleidoscope has been shown to be a viable mediator in the connection between WE and IWB. WE and IWB, as well as WE and CPE, are all significantly impacted by OPs as moderator, but WE and kaleidoscope are unaffected by OPs. The findings also showed that the direct effect of WE are positively and associated with IWB.

**Keywords:** innovative work behaviour; IWB; women's empowerment; creative process engagement; CPE; kaleidoscope; organisational politics; Saudi Arabia.

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## 1 Introduction

Modern developments and rapid changes have impacted innovations in daily life and the level of individual preferences. Contemporary society is influenced by the level of active participation of individuals with clear goals who prefer active innovation over passive feedback (Bourouaha et al., 2025). Today, engaging individuals in service improvement and process innovation has become critical at the institutional and organisational levels (Suhartini and Sary, 2025). Achieving a continuous flow of innovation requires individuals who are passionate about innovation and who work within an environment that motivates them to do so (Sar, 2025). Öztürk et al. (2025) argued that administrative and organisational approaches are the most important factor in enabling individuals to engage in institutional entrepreneurship and achieve high levels of innovation. In this regard, Sugiyanto et al. (2024) emphasised that women are at the centre of economic empowerment. Empowerment cannot be separated from women's entrepreneurship, as they are closely linked (Sugiyanto and Wijayanti, 2023).

The issue of women's empowerment is of great importance as it is a function of social work and it is related directed to the economic growth (Odeh, 2025). Dahlum et al. (2022) indicated that allowing women access to economic and political opportunities allows them to emerge as an active component of society, which helps shape comprehensive policies that cover various dimensions of empowerment. Yadav et al. (2023) emphasised that empowerment is considered a contributing and essential factor in supporting innovative behaviour among individuals. Empowerment contributes to enhancing individuals' willingness to share required information and promoting innovative work behaviour (IWB) (Dugar, 2021; Hassi et al., 2021; Yadav et al., 2023; Subyantoro et al., 2025). Moreover, Jeong et al. (2023) highlighted the importance of involving employees in creative processes, as it is an important factor in assessing individual success. The concept of participation in creative processes refers to engaging employees in processes and tasks based on creative activities (Zhang and Chi, 2025). Qin et al. (2024) and Awan et al. (2024) added that engaging employees in creative processes enhances their problem-solving skills and expands their knowledge in various fields.

Furthermore, organisational policies are considered an influential element in administrative processes (Rajab, 2024). Organisational policy expresses the behaviours and decisions of individuals that regulate the internal work environment (Al-Muqaddad, 2022). The success of organisational policies in creating appropriate cohesion within the work environment contributes to creating an atmosphere of psychological stability, making individuals feel important in the workplace. This feeling can enhance individuals' desire to participate in decision-making and contribute to formulating effective organisational policies.

One of the models that has emerged in recent years and influences individuals' decisions regarding their careers and human resources management is the kaleidoscope. This model shifts from a focus on the organisation to a focus on individuals, who play a fundamental role in their lives (Nazlı, 2024). The model consists of three basic elements, which are originality, balance, and challenge (Öztürk et al., 2025). Simmons et al. (2022) emphasised that this model emphasises opportunities for self-development and continuous transformation, thus providing organisational frameworks that enable individuals to achieve their career goals.

In the Saudi context specifically, women constitute nearly half of Saudi society. However, despite this, their participation in economic projects and their level of

contribution to entrepreneurship remain lower than that of men (Alessa et al., 2022). Statistics also indicate that the role of Saudi women in most sectors does not extend beyond executive support (Al-Labadi et al., 2020). Al-Salami et al. (2023) argued that although Saudi Arabia has come a long way in empowering Saudi women, and despite the increasing number of women participating in the labour market, this number is gradually decreasing as they move to higher managerial levels in practice. The role of women is considered limited in most sectors, meaning that hindering the empowerment of women leaders and their level of engagement in society hinders many other aspects, including creativity and innovation, thus slowing the pace of economic development. As a result, the objectives of Saudi Vision 2030 are a fundamental support for achieving the requirements of economic development by integrating women into various industrial, educational, and political sectors and eliminating all forms of discrimination against them. Based on this, this research aims to examine how women empowerment influences IWB through mediating role of creative process engagement (CPE), kaleidoscope and organisational politics. The significance of this research lies in the limited literature examines how women empowerment influences IWB through mediating role of CPE and kaleidoscope, as well as the moderating role of organisational policy (OP). The findings could help the decision makers formulate plans and strategies about women empowerment process and the adoption of innovative behaviour.

## **2 Literature review**

Women in the business world suffer from a gender equality gap. In fact, providing women with appropriate opportunities in the business world enables them to occupy high-potential roles (Subyantoro et al., 2025). Sugiyanto et al. (2024) argued that women's empowerment cannot be achieved without adequate governmental and societal support. Providing funding, providing appropriate training and technical support, providing a suitable work environment, and promoting equal employment opportunities are all factors that influence women's empowerment (Aldossari, 2025). Empowering women in projects and jobs contributes to achieving many positive outcomes at the economic, social, and political levels, and it also contributes to enhancing employment opportunities, improving income levels, and developing local communities.

In the era of globalisation, gaining competitive strength is considered an important element for survival in a competitive environment. This requires organisations to offer innovative products and operate within a clear and practical organisational strategy. Aristana et al. (2024) emphasised that the inability to innovate can contribute to the destruction of an organisation, while IWB contributes to enabling the organisation to achieve sustainable development. IWB enhancing an organisation's ability to grow and survive in a competitive environment. Tager et al. (2023) indicated that employee satisfaction is a primary cause of IWB.

Odoardi et al. (2019) and Kumar et al. (2025) pointed out the importance of the role of employees and workers as supporters and motivators of innovation. In this field, several studies have been conducted to explore the relationship between empowerment and IWB (Yadav et al., 2023; Tager et al., 2023; Aristana et al., 2024; Sugiyanto et al., 2024). Aristana et al.'s (2024) study found a positive effect of psychological empowerment on the IWB of employees in small and medium-sized enterprises (SMEs)

in Bali. Yadav et al. (2023) also found that psychological empowerment mediated the positive effect of leadership empowerment on IWB. Sugiyanto et al. (2024) demonstrated that innovative behaviour acts as a mediating variable in the relationship between structural empowerment and entrepreneurial success, while innovative behaviour is not considered a mediating factor between psychological empowerment and entrepreneurial success among women.

Moreover, Jeong et al. (2023) argued that the ability to achieve a higher level of creativity is linked to the level of employee motivation to engage in creative processes. This process is called CPE. Zhang and Chi (2025) confirmed that the nature of leadership influences engagement in creative processes, where empowerment and trust acting as effective mediators in the relationship between leadership and creative engagement. The desire to demonstrate tangible creative results requires active engagement in activities such as problem identification and information gathering, which contribute to the generation of creative ideas. Awan et al. (2024) emphasised that employee engagement in creative processes not only contributes to generating new ideas, but also enhances their knowledge and research tools and contributes to enhancing their skills in defining, identifying, and effectively addressing problems. Solé et al. (2020) argued that despite the importance of engagement in creative processes, there are limited studies addressing it. This confirms the existence of a research gap that requires further research and evaluation.

In addition to the above, Rajab (2024) indicated that organisational behaviour is influenced by political behaviour, which is reflected through the organisational policies in place within the work environment. Organisational policies refer to the areas within organisational activities, especially those related to promotions and transfers (Al-Muqaddad, 2022). Organisational politics interact with authority and responsibility, which are important aspects in developing and changing established policies. They are part of decision-making within the organisation and contribute to achieving harmony between different departments. Rajab (2024) pointed out the importance of studying organisational politics, considering that a negative work environment may lead to injustice and inequality.

One of the most prominent models that aims to analyze the efforts that influence individuals' career paths and orientations, in line with their circumstances and personal characteristics, is the kaleidoscope model. Denizli and Dündar (2023) indicated that this model focuses on enabling individuals to choose paths that enable them to achieve balance and development within their professional lives. This model also takes into account the preferences of individuals, particularly women. The model aims to achieve success and manage the demands of professional and non-professional life (Öztürk et al., 2025).

Through her review of numerous previous studies, the researcher noted the absence of any previous study that combined the five variables targeted by the current study (women empowerment, IWB, CPE, kaleidoscope and organisational politics). Previous studies may have combined two or three variables (Solé et al., 2020; Hassi et al., 2021; Dahlum et al., 2022; Yadav et al., 2023; Denizli and Dündar, 2023; Tager et al., 2023; Awan et al., 2024; Rajab, 2024; Aristana et al., 2024; Sugiyanto et al., 2024; Zhang and Chi, 2025; Bourouaha et al., 2025; Öztürk et al., 2025); however, the impact of these variables has not been studied collectively. This confirms the existence of a research gap in previous theoretical literature that needs to be filled by modern studies. Accordingly, the current research aims to examine how women empowerment influences IWB through

mediating role of CPE and kaleidoscope, as well as the moderating role of the organisational politics.

## *2.1 Hypotheses development*

### *2.1.1 Women empowerment and IWB*

Empowering women is a goal that has both intrinsic and instrumental worth. Everyone must have equal opportunities to influence their surrounding community, thus, be a contributor in achieving economic efficiency and other key development effects (Yeh, 2018). Businesses can only realise their full potential when female employees actively engage in innovative actions and behaviours that lead to the development or adoption of novel ideas, goods, and services (Ayoub et al., 2023). These ideas can have a positive impact on a broad variety of stakeholders (Carlucci et al., 2020). Vu et al. (2021) argued that innovative behaviours involve not only proposing new ideas but also seeking to implement them using effective tools. In some workplaces, innovative activity may be viewed as a form of risk. Some ideas may be implemented for the first time, which carries a degree of risk (Carlucci et al., 2020).

However, empowerment has been shown empirically to encourage employee IWB (Mutonyi et al., 2020; Stanescu et al., 2021; Lee and Huruta, 2022). Mutonyi et al. (2020) indicated that empowering US Federal Government Employees enhances their level of innovation, while decreasing their level of empowerment reduces employee innovation. Thus, given the multidimensional nature of women empowerment (Kapoor et al., 2022), it is necessary to investigate the link between its various dimensions (i.e., economic empowerment, social empowerment, and leadership capabilities) and IWB (Rafique et al., 2022). Based on above reviewed literature, the following hypothesis has been developed:

H1 Women empowerment is positively associated with IWB.

### *2.1.2 Women empowerment and CPE*

Women's empowerment indicates to the acquisition of more freedom in making decisions and acting (Laszlo et al., 2020; Ceular-Villamandos et al., 2021). CPE involves workers using creativity-related approaches or processes. Creative processes involve issue identification, information seeking and encoding, and idea development (Huang, 2020). Huang (2020) stated that problem identification inspires creativity. Harms et al. (2020) and Begum et al. (2022) added that employees must frame the issue and establish applicable objectives, methods, constraints, and information. Searching and encoding information to solve issues may also increase knowledge and improves workers' general skills, which boosts performance and generate fresh ideas or alternatives (Huang, 2020). Thus, the following hypotheses are framed based on above literature:

H2 Women empowerment is positively associated with CPE.

### *2.1.3 Women empowerment and kaleidoscope*

Women in the workforce are seen and treated differently than males (Olave, 2019). In contrast to conventional models, modern career theories better describe the paths taken

by entrepreneurs since they take charge of their professional lives and make choices independently of any given company (De Clercq et al., 2021). Career transition patterns in men's and women's working lives were examined. Career trajectories were compared using kaleidoscope. Au et al. (2021) argued that women's work lives undergo periodic rotation and reprioritisation. Kaleidoscope serves as a metaphor for their ever-changing professional paths, which are typically influenced by family responsibilities and other time-sensitive factors (Au et al., 2021). Women, in contrast to males, did not follow a straight professional path throughout the 20th century (Modestino et al., 2019). Instead, they made job decisions that took into account the needs of their families. Kaleidoscopic career patterns emphasise challenge above authenticity and balance. Other kaleidoscopic career patterns emphasise on balance, with challenge and authenticity being less important. Kaleidoscope career self-inventory measures these characteristics (Au et al., 2021). Based on that, the following hypothesis is developed:

H3 Women empowerment is positively associated with kaleidoscope.

#### *2.1.4 CPE and IWB*

Most of research in the realm of creativity has been on identifying organisational IWB rather than delving into the causes of creativity and innovation (AlEssa and Durugbo, 2021; Butt et al., 2021). More recent studies in the realm of creativity have put an emphasis on the steps that one takes to arrive at creative results (Ritter et al., 2020; Hisrich and Soltanifar, 2021). Furthermore, in a competitive environment, a company's success is dependent on its workers' volitionally engaging in aggressive participation in the formulation of innovative ideas and the development of constructive roadmaps to achieve a competitive advantage (AlKhoori, 2022). According to the past research, workers who commit themselves to CPE are more likely to acquire IWB (Afrin et al., 2022). According to creative literature, information is not necessary for idea generation, but cognitive structure is (Stevenson et al., 2021). More concrete and complicated information makes it more difficult to create innovative ideas (Han et al., 2022). Based on that, the following hypothesis is developed:

H4 CPE is positively associated with IWB.

#### *2.1.5 Kaleidoscope and IWB*

The KCM patterns are rather standard. Early on, both men and women tend to concentrate on finding interesting job situations; hence, challenge emerges as the biggest factor, although the other two stay strong. Owing to family responsibilities, women put a greater premium on work-life balance throughout midcareer, while men place a greater emphasis on authenticity and more challenge (Muzzio et al., 2018). These motivations are negated by professional layoffs, which necessitate a job transition for both men and women (Yafi et al., 2021). In the twilight of their careers, women express a need for authenticity as balance diminishes and challenge reemerges as a top concern. At this age, males desire a balanced lifestyle (Muzzio et al., 2018; Birdwell, 2020). Salem et al. (2022) stated that organisations are inclined to reward employees who are innovative at work since such actions often lead to positive outcomes. Appraisers are likely to reward employees for creative acts to promote these behaviours, considering the improvements and the significance of technology innovation in most marketplaces (Lin et al., 2019;

Duan et al., 2022). However, there is sometimes a price to pay for new ideas, since adopting and implementing they may require some disturbance to established practices and procedures as well as some more time and energy (Di Vaio and Varriale, 2020). The focus of modern studies on creativity has shifted from the final product to the creative process itself (Muzzio et al., 2018). Consequently, the following hypothesis is developed:

H5 Kaleidoscope is positively associated with IWB.

#### 2.1.6 CPE as mediator

Thompson-Whiteside et al. (2021) showed that in SMEs; women employee's innovative behaviour is shown to generate new ideas that may aid them in resolving challenges encountered during the working process, as well as improving their performance and contributing to the resolution of organisational problems. The importance of innovative problem solving in the workplace has grown as the rivalry between organisations has intensified (Drosos et al., 2021). The natural propensity of employees is for them to participate in some kind of creative activity or creative process while they are doing their duties (Ma et al., 2022; Kumkale, 2022). To be successful in today's world, one must participate in CPE (Khan and Abbas, 2022). In addition, creative behaviour is limited to the development of new ideas, while IWB encompasses both the generation and application of new ideas (Akbari et al., 2020). In fact, Clarke and Higgs (2020) discovered empirical data demonstrating a significant, positive association between empowerment methods designed to offer workers freedom to modify their work procedures and IWB. So, to support our hypotheses on which CPE is correlated with IWB and women empowerment, the following hypothesis is developed:

H6 CPE mediates the relationship between women empowerment and IWB.

#### 2.1.7 Kaleidoscope as mediator

To understand the phenomenon of women's professional advancement, the KCM offers a critical interpretivist paradigm. KCM looks for ways in which women's stories may be incorporated into organisations' structures, policies, and practices to boost women's equality. Similar to how a kaleidoscope uses multiple mirrors to create an infinite variety of patterns, our KCM has three 'mirrors' or criteria (authenticity, balance, and challenge) that interact with one another in different ways at different points in a woman's life to reflect the distinctive patterns of her work (Nazlı, 2024).

Companies that care about helping working women to find a work-life balance should have an inclusive culture that recognises and appreciates everyone's efforts. This culture must give women the resources they need to succeed at every stage of their careers, and creates a safe space where they can feel comfortable in discussing their need for flexible work arrangements without fear of repercussions (Cardel et al., 2020).

The KCM may explain gender differences in the timing of the choice to become an entrepreneur and how the model's three elements influence the decision to return to a corporate career after entrepreneurship. Most IWB validity studies leverage employee innovation. Jaruwanakul, (2021) found relationships between IWB and innovation disclosure numbers. When staffs are totally focused on innovation, additional 'objective' output measurements (such patent numbers) may exist. Jaruwanakul, (2021) connected their IWB scale with objective innovation results, while Ghosh et al. (2019) compared

leader and subordinate innovativeness reports. Based on that, the following hypothesis is developed:

H7 Kaleidoscope mediates the relationship between women empowerment and IWB.

### *2.1.8 Organisational politics as moderator*

Organisational politics is a multifaceted phenomenon. People's perspectives on organisational politics are influenced by a variety of factors, including their distinctive characteristics, the social networks they have developed inside the organisation, as well as consequences and repercussions, such as incentive allocations and job attitudes (Sheikh et al., 2020). Women's total labour involvement, as measured by the percentage of public job possibilities that are allotted to women, has been shown to rise with more exposure to political representation of women. World leaders have committed to ensuring that women and girls have equal opportunities in all areas of life (De Soys and Zipp, 2019).

Hochwarter et al. (2020) and Ellen et al. (2022) argued that if employees think their organisation is overly driven by politics, they are less committed, have lower job satisfaction, and have higher job anxiety. The dark side of organisational politics manifests at times of organisational change, when difficult decisions must be made, and when few resources inspire competition among stakeholder groups (Lam and Xu, 2019; Jeong and Kim, 2022). By ensuring that everyone has equal access to information and not rewarding or tolerating political manoeuvring, leaders may help decrease unnecessary political behaviour. Managers should be encouraged to offer employees constructive criticism on their work (Hochwarter et al., 2020; Alshoukri et al., 2020). Based on that, the hypotheses are developed:

H8 Organisational politics moderate the relationship between women empowerment and IWB, such that lower organisational politics increases the chances of IWB.

H9 Organisational politics moderate the relationship between women empowerment and CPE, such that lower organisational politics increases the chances of CPE.

H10 Organisational politics moderate the relationship between women empowerment and kaleidoscope, such that lower organisational politics increases the chances of kaleidoscope.

## **3 Research methodology**

The study is a cross-sectional study as it is taking place at one specified point in time for conducting the research (Hunziker and Blankenagel, 2024). The quantitative survey is used in this study to collect the desired data as it provides more control for the researcher over the research process and provides reliable results (Nardi, 2018).

As a result of time constraints and the availability of accurate data, the non-probability convenience sampling strategy has been used in this research for faster data gathering. The study respondents consisted of 499 Saudi Arabian women who hold positions in the governmental and commercial sectors, and who are working as project manager, directors/CEOs, or shift supervisor. Web-based questionnaire was designed for this study which was printed out as well for the convenience of the respondents who

preferred to fill out the printed questionnaire. Smart partial least squares-structural equation modelling was used to verify the results of the investigation (Smart PLS-SEM version 4).

The demographics characteristics of the respondents includes age, material status, education, experience and position. The following table shows the descriptive statistics of the demographic characteristics of the respondents.

**Table 1** Descriptive statistics

<i>Demographics</i>	<i>Categories</i>	<i>Frequency</i>	<i>Percent</i>
Age	Less than 40	177	26.0
	40 to less than 50	211	31.0
	Greater than 50	111	16.3
Marital status	Married	180	26.5
	Single	274	40.3
	Divorced	45	6.6
Education	Secondary school and below	36	7.2
	Bachelor	253	50.7
	Postgraduate studies	210	42.1
Experience	less than 3	104	20.8
	3 to less than 10	222	44.5
	10 and above	173	34.7
Position	Top management	99	19.8
	Middle management	252	50.5
	Operational management	148	29.7

Regarding age, the majority of respondents were 40 to less than 50 years, with a total of 211 women, representing 31%. 177 respondents were less than 40 years old, representing 26%, while 111 participants were over 50 years old, representing 16.3%. Regarding marital status, the majority of women were single (274, representing 40.3%). 180 of them were married, representing 26.5%, while 45 of them were divorced, representing 6.6%. Regarding education, most respondents held a bachelor's degree (253, representing 50.7%), followed by postgraduate studies (210, representing 42.1%), followed by secondary school and below (36, representing 7.2%). Regarding experience, 222 women had 3 to less than 10 years of experience (representing 44.5%), 173 women had 10 or more years of experience (representing 34.7%), and 104 women had less than 3 years of experience (representing 20.8%). In terms of position, 252 women worked in middle management (representing 50.5%), 148 women worked in operational management (representing 29.7%), and 99 women worked in top management (representing 19.8%)

## 4 Research analysis

### 4.1 Measurement model analysis

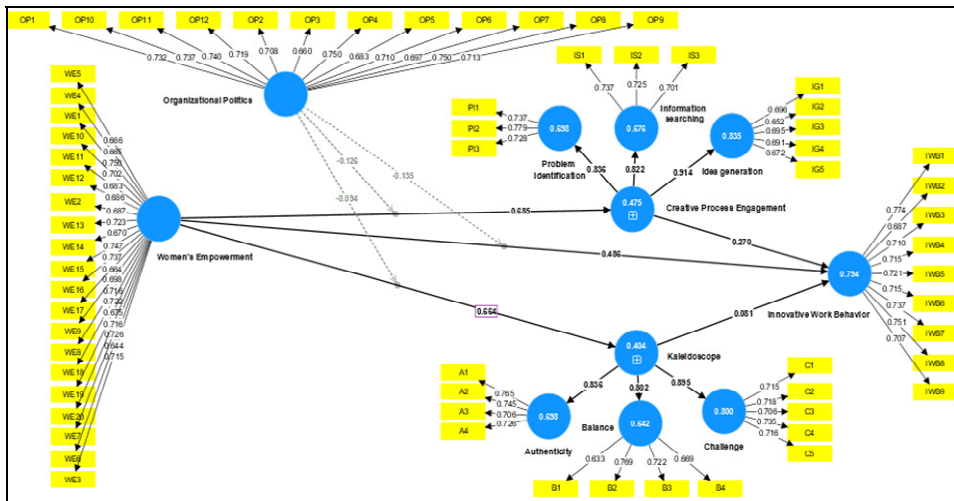
The preliminary route model estimate for external loadings is shown in Figure 1. Each item's outer loadings, Cronbach alpha, Composite Reliability, and Average Variance extracted (AVE) values are shown in Table 2 extracted from structures before having objects taken out.

**Table 2** Factor loading values

<i>Variables</i>	<i>Items</i>	<i>Factor loading</i>	<i>Items</i>	<i>Factor loading</i>	<i>Items</i>	<i>Factor loading</i>	<i>Items</i>	<i>Factor loading</i>
Authenticity	A1	0.765	A2	0.745	A3	0.706	A4	0.726
Balance	B1	0.633	B2	0.769	B3	0.722	B4	0.669
Challenge	C1	0.715	C2	0.718	C3	0.706	C4	0.735
	C5	0.716						
Idea generation	IG1	0.696	IG2	0.652	IG3	0.695	IG4	0.691
	IG5	0.672						
Information searching	IS1	0.737	IS2	0.725	IS3	0.701		
Innovative work behaviour	IWB1	0.774	IWB2	0.687	IWB3	0.710	IWB4	0.715
	IWB5	0.721	IWB6	0.715	IWB7	0.737	IWB8	0.751
	IWB9	0.707						
Organisational politics	OP1	0.732	OP2	0.708	OP3	0.660	OP4	0.750
	OP5	0.683	OP6	0.710	OP7	0.697	OP8	0.750
	OP9	0.713	OP10	0.737	OP11	0.740	OP12	0.719
Problem identification	PI1	0.737	PI2	0.779	PI3	0.728		
Women empowerment	WE1	0.750	WE2	0.687	WE3	0.715	WE4	0.665
	WE5	0.666	WE6	0.644	WE7	0.726	WE8	0.716
	WE9	0.698	WE10	0.702	WE11	0.683	WE12	0.686
	WE13	0.723	WE14	0.670	WE15	0.747	WE16	0.737
	WE17	0.664	WE18	0.722	WE19	0.675	WE20	0.716

The factor loading values must be greater than 0.70 (Hair et al., 2017). Items with outer loadings between 0.40 and 0.70 may be dropped from consideration if doing so improves composite reliability or average vector error. Figure 1 shows that all first order and second order variables outer loadings values are greater than 0.60 (see Figure 1).

Figure 1 Initial path model estimation for outer loadings (see online version for colours)



4.1.1 Multi-collinearity of indicators

To ensure that there is no significant multi-collinearity problem among the study variables, the variance inflation factor (VIF) was calculated as shown in Table 3.

Table 3 VIF values

Constructs	Items	VIF	Items	VIF	Items	VIF	Items	VIF	
Authenticity	A1	1.412	A2	1.370	A3	1.295	A4	1.355	
	Balance	B1	1.248	B2	1.426	B3	1.275	B4	1.167
		B3	1.275	B4	1.167				
	Challenge	C1	1.376	C2	1.469	C3	1.411	C4	1.488
C5		1.389							
Idea generation	IG1	1.298	IG2	1.242	IG3	1.334	IG4	1.325	
	IG5	1.261							
	Information searching	IS1	1.166	IS2	1.129	IS3	1.133		
Innovative work behaviour	IWB1	1.943	IWB2	1.587	IWB3	1.691	IWB4	1.706	
	IWB5	1.725	IWB6	1.698	IWB7	1.822	IWB8	1.891	
	IWB9	1.640							
	Organisational politics	OP1	2.043	OP2	1.807	OP3	1.497	OP4	2.028
OP5		1.932	OP6	1.869	OP7	1.590	OP8	1.935	
OP9		1.864	OP10	1.963	OP11	2.082	OP12	2.117	
Problem identification		PI1	1.178	PI2	1.259	PI3	1.207		
	Women empowerment	WE1	2.109	WE2	1.794	WE3	1.983	WE4	1.738
		WE5	1.761	WE6	1.660	WE7	1.994	WE8	1.908
		WE9	1.830	WE10	1.859	WE11	1.774	WE12	1.782
WE13		1.998	WE14	1.736	WE15	2.170	WE16	2.064	
WE17	1.724	WE18	2.013	WE19	1.833	WE20	2.056		

Table 3 indicates that there is no significant multi-collinearity problem among the study variables, as all values are all below the critical threshold (5). This enhances the reliability of the subsequent analysis. It also shows that the measures of women's empowerment and IWB, as well as the variables of the kaleidoscope model, organisational politics, and CPE, were measured with stable indicators, supporting the validity of the study's conceptual model, which tests the effect of women's empowerment on innovative behaviour through the mediating dimensions.

#### 4.1.2 Significance of outer weights

Through Tables 4–7, the values of the outer weights, the HTMT coefficient, and the Fornell-Larcker criterion were calculated in order to verify the discriminant validity and robustness of the measurements used in the study.

The results of Table 4 indicate that all outer weights of the relationships between the sub-variables (CPE with the dimensions of the CPE, and kaleidoscope with the dimensions of originality, balance, and challenge) were statistically significant at the ( $p < 0.001$ ) level, which confirms the validity of the indicators and their ability to measure the latent constructs robustly.

**Table 4** Significance of outer weights

<i>Relationship among constructs</i>	$\beta$	<i>Sample mean</i>	<i>SD</i>	<i>T statistics</i>	<i>P values</i>
CPE -> idea generation	0.913	0.913	0.009	104.159	0.000
CPE -> information searching	0.822	0.823	0.017	49.391	0.000
CPE -> problem identification	0.836	0.837	0.015	54.818	0.000
Kaleidoscope -> authenticity	0.837	0.837	0.020	42.583	0.000
Kaleidoscope -> balance	0.802	0.802	0.026	30.859	0.000
Kaleidoscope -> challenge	0.894	0.894	0.011	79.232	0.000

Notes: Abbreviations: creative process engagement (CPE) and standard deviation (SD).

**Table 5** HTMT ratio

<i>Constructs</i>	<i>CPE</i>	<i>IWB</i>	<i>Kaleidoscope</i>	<i>OP</i>	<i>WE</i>	<i>OP × WE</i>
Creative process engagement						
Innovative work behaviour	0.760					
Kaleidoscope	0.799	0.751				
Organisational politics	0.240	0.523	0.164			
Women's empowerment	0.755	0.603	0.701	0.458		
OP × WE	0.047	0.087	0.057	0.665	0.180	

Notes: Abbreviations: innovative work behaviour (IWB), women's empowerment (WE), creative process engagement (CPE) and organisational politics (OP).

The results of Tables 5 and 6 heterotrait-monotrait (HTMT) showed that the values of the HTMT ratio coefficient all fall below the acceptable threshold (0.85 or 0.90), indicating that the variables are distinct from each other (discriminant validity).

**Table 6** Discriminant validity (HTMT) results between constructs

Relationship among constructs	Heterotrait-monotrait ratio (HTMT)
Innovative work behaviour <-> creative process engagement	0.760
Kaleidoscope <-> creative process engagement	0.799
Kaleidoscope <-> innovative work behaviour	0.751
Organisational politics <-> creative process engagement	0.240
Organisational politics <-> innovative work behaviour	0.523
Organisational politics <-> kaleidoscope	0.164
Women's empowerment <-> creative process engagement	0.755
Women's empowerment <-> innovative work behaviour	0.603
Women's empowerment <-> kaleidoscope	0.701
Women's empowerment <-> organisational politics	0.458

**Figure 2** Assessment of outer loadings (see online version for colours)

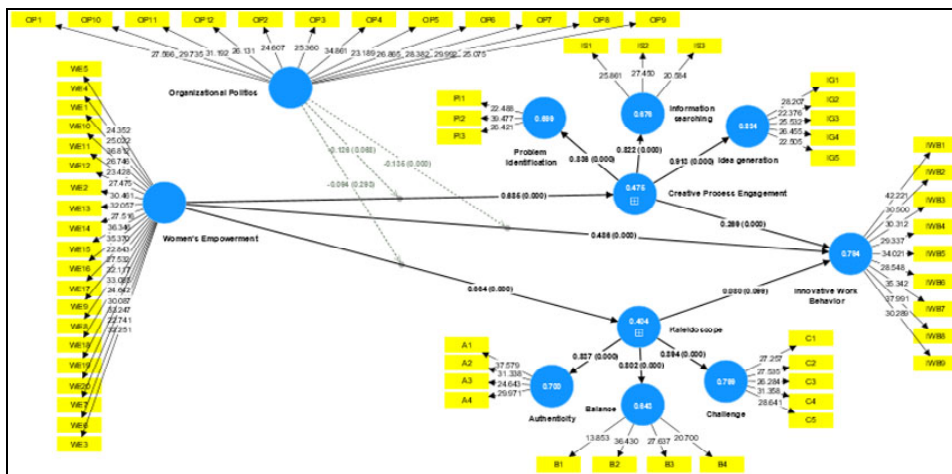


Table 7 showed that the root mean square of the AVE coefficient for each construct was higher than its correlations with the other constructs, strengthening the discriminant validity of the studied variables. Accordingly, it can be concluded that the women empowerment, IWB, CPE, kaleidoscope, and organisational politics scales have demonstrated good validity and reliability, allowing us to confidently move on to testing the structural model. These results collectively support the external validity of the model and provide the basis for analyzing the structural model. Figure 2 shows the results of the outer loadings assessment for all study indicators. Most values were higher than 0.7, confirming the strength of the indicators in measuring the latent variables (women's empowerment, IWB, engagement in the creative process, the kaleidoscope, and OP). These results indicate convergent validity for the measurement model (see Figure 2).

**Table 7** Fornell-Larcker criterion

<i>Constructs</i>	<i>CPE</i>	<i>IWB</i>	<i>Kaleidoscope</i>	<i>OP</i>	<i>WE</i>
Creative process engagement	0.860				
Innovative work behaviour	0.725	0.736			
Kaleidoscope	0.732	0.635	0.846		
Organisational politics	0.239	0.501	0.159	0.717	
Women's empowerment	0.670	0.700	0.613	0.457	0.828

Notes: Abbreviations: innovative work behaviour (IWB), women's empowerment (WE), creative process engagement (CPE) and organisational politics (OP).

## 4.2 *Structural equation model*

The structural model, also known as the internal model, is assessed after the measurement model has been measured. The internal model represents the interdependencies between the various parts of the research framework (Hair et al., 2016). The significance of a structural model is determined by calculating metrics such as the coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), and predictive relevance ( $Q^2$ ) (Hair et al., 2018). Since multi-collinearity inside the internal model might distort results, it must be investigated before the structural model is evaluated (Hair et al., 2017).

### 4.2.1 *Coefficient of determination*

Accuracy of a model's predictions may be evaluated using the coefficient of determination ( $R^2$ ) (Hair et al., 2017). With a range from 0 to 1,  $R^2$  shows how much external latent factors have influenced the underlying endogenous latent variables (Hair et al., 2016). The greater the number, the more plausible the explanation. Values of  $R^2$  between 0.75 and 0.50 are considered strong, whereas values between 0.25 and 0.25 are considered poor (Hair et al., 2020). The value of  $R^2$  is shown in Figure 2. The following table shows the coefficient of determination.

**Table 8** Coefficient of determination

<i>Constructs</i>	<i>R-square</i>	<i>R-square adjusted</i>	<i>Q-square</i>
Creative process engagement	0.472	0.469	0.443
Innovative work behaviour	0.795	0.793	0.722
Kaleidoscope	0.403	0.400	0.356

The  $R^2$  value for IWB is 0.795, which is regarded to be high; it indicates that women's empowerment kaleidoscope and CPE explain 79% of the variance in IWB. Similarly, the  $R^2$  value for CPE is 0.472 and kaleidoscope 0.403, those indicates that women's empowerment explains 47.2% of the variance in CPE and 40.3% variance in kaleidoscope, both were moderate.

### 4.2.2 *Predictive relevance*

Method for determining an internal model's predictive value known as predictive relevance ( $Q^2$ ) (Hair et al., 2017).  $Q^2$  was calculated using the blind technique, with an

omission distance (D) of 7. To evaluate the degree of predictive importance, the suggested cross-validation redundancy method was implemented (Hair et al., 2016). If the value is greater than zero, the model may be used for prediction, whereas a negative value indicates that the model is not useful for prediction (Hair et al., 2016). Table 8 shows that the model has predictive power since the Q<sup>2</sup> values of endogenous components are greater than 0.

### 4.2.3 Effect size

Table 9 reveals that CPE on IWB (0.137), organisational politics on IWB (0.239), women's empowerment on IWB (0.485), women's empowerment on kaleidoscope (0.485), women's empowerment on CPE (0.689) all were high and medium have effect sizes that fall into the high and medium range, while the other constructs have small effect size.

**Table 9** Effect size (F<sup>2</sup>)

Constructs	CPE	Innovative work behaviour	Kaleidoscope
Creative process engagement (CPE)		0.137	
Innovative work behaviour			0.013
Kaleidoscope			
Organisational politics	0.001	0.239	0.004
Women empowerment	0.689	0.485	0.574
Organisational politics × women's empowerment	0.033	0.098	0.015

**Figure 3** PLS path analysis of (n = 5,000 bootstrapped samples) (see online version for colours)

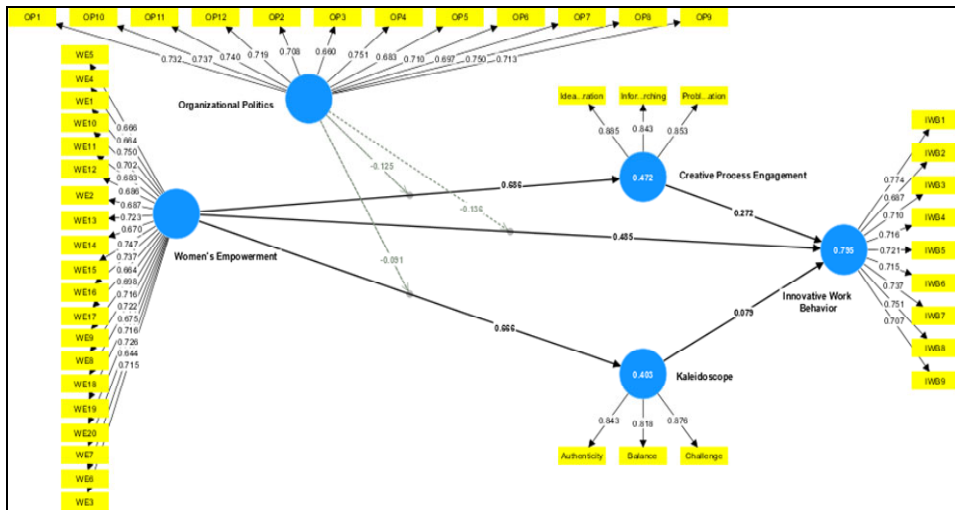


Figure 3 shows the results of the PLS path analysis with 5000 bootstrap samples. It was found that the paths from women's empowerment towards both the creative process (CPE) and the kaleidoscope model and innovative behaviour (IWB) had significant

coefficients. Furthermore, the creative process and the kaleidoscope played a mediating role in strengthening the relationship between women’s empowerment and innovative behaviour. The coefficient values ( $R^2$ ) indicate a good explanation for the CPE (0.472) and IWB (0.735) variables, supporting the strength of the proposed model (see Figure 3).

### 4.3 Path results

Path coefficients are hypothesised relationships between constructs, and their values range from  $-1$  to  $1$  (Hair et al., 2017). Numbers close to  $+1$  indicate a strong positive association, while values close to  $-1$  indicate a strong negative relationship. By bootstrapping, it is possible to determine the significance of route coefficients. Table 10 displays the significance and t-values of the path coefficients.

#### 4.3.1 Direct effects

Table 10 and Figure 3 show that the direct effect of women empowerment is positively and significantly associated with IWB ( $\beta = 0.485$ ,  $t = 9.777$ ,  $p < 0.001$ ). The path coefficient shows that a one-unit change in women empowerment leads to a 48.5% change in IWB. Furthermore, the direct effect of WE on CPE ( $\beta = 0.686$ ,  $t = 11.466$ ,  $p < 0.001$ ), WE on kaleidoscope ( $\beta = 0.666$ ,  $t = 9.286$ ,  $p < 0.001$ ) indicated that 68.6% change in CPE and 66.6% change in kaleidoscope occur when a one-unit change in women empowerment. Lastly, CPE on IWB ( $\beta = 0.485$ ,  $t = 9.777$ ,  $p < 0.001$ ) and kaleidoscope on IWB ( $\beta = 0.485$ ,  $t = 9.777$ ,  $p < 0.001$ ) also positively and significantly influence IWB. Hence, all direct hypotheses H1, H2, H3, H4 and H5 were accepted.

**Table 10** Results of the structural equations model

Hypotheses	Relationship among constructs	$\beta$	Sample mean	Standard deviation	T statistics	P values	Remarks
<i>Direct effect</i>							
H1	WE -> IWB	0.485	0.495	0.050	9.777	0.000	Supported
H2	WE -> CPE	0.686	0.696	0.060	11.466	0.000	Supported
H3	WE -> kaleidoscope	0.666	0.682	0.072	9.283	0.000	Supported
H4	CPE -> IWB	0.272	0.268	0.063	4.340	0.000	Supported
H5	Kaleidoscope ->IWB	0.079	0.076	0.048	2.647	0.043	Supported
<i>Indirect effects</i>							
<i>Mediation analysis</i>							
H6	WE -> CPE-> IWB	0.186	0.185	0.043	4.343	0.000	Supported
H7	WE -> kaleidoscope -> IWB	0.053	0.051	0.042	2.625	0.041	Supported
<i>Moderation analysis</i>							
H8	OP $\times$ WE -> IWB	-0.136	-0.127	0.031	4.384	0.000	Supported
H9	OP $\times$ WE -> CPE	-0.125	-0.117	0.040	3.785	0.034	Supported
H10	OP $\times$ WE -> kaleidoscope	-0.090	-0.074	0.091	0.996	0.319	Not supported

4.3.2 Mediation analysis

Table 10 presented that kaleidoscope is positively and significantly mediates the relationship between women empowerment and IWB ( $\beta = 0.053, t = 2.625, p < 0.05$ ). Moreover, the CPE also positively and significantly mediates the relationship between women empowerment and IWB ( $\beta = 0.186, t = 4.343, p < 0.001$ ). Hence, both mediation hypotheses H6 and H7 were accepted.

4.3.3 Moderation analysis

According to Table 10 and Figure 3, the moderating effect of OP on the relationship between WE and IWB is negative and significant ( $\beta = -0.090, t = 4.384, p < 0.05$ ). Which indicate that if OP is high, it will reduce the women empowerment and employee IWB. Furthermore, the OP negatively and significantly moderates the relationship between WE and CPE ( $\beta = -0.125, t = 3.785, p < 0.05$ ), but in significant on the relationship between WE and kaleidoscope ( $\beta = -0.125, t = 0.996, p > 0.05$ ) because  $p > 0.05$ . Therefore, Hypotheses H8 and H9 were accepted and H10 was rejected.

4.4 Summary of hypothesis

The summary of the study's suggested hypotheses may be found in Table 11.

**Table 11** Summary of hypotheses

<i>Hypotheses</i>	<i>Descriptions</i>	<i>Remarks</i>
H1	Women empowerment is positively associated with innovative work behaviour.	<i>Accepted</i>
H2	Women empowerment is positively associated with creative process engagement.	<i>Accepted</i>
H3	Women empowerment is positively associated with kaleidoscope.	<i>Accepted</i>
H4	Creative process engagement is positively associated with innovative work behaviour.	<i>Accepted</i>
H5	Kaleidoscope is positively associated with innovative work behaviour.	<i>Accepted</i>
H6	Creative process engagement mediates the relationship between women empowerment and innovative work behaviour.	<i>Accepted</i>
H7	Kaleidoscope mediates the relationship between women empowerment and innovative work behaviour.	<i>Accepted</i>
H8	Organisational politics moderate the relationship between women empowerment and innovative work behaviour, such that lower organisational politics increases the chances of innovative work behaviour.	<i>Accepted</i>
H9	Organisational politics moderate the relationship between women empowerment and creative process engagement, such that lower organisational politics increases the chances of creative process engagement.	<i>Accepted</i>
H10	Organisational politics moderate the relationship between women empowerment and kaleidoscope, such that lower organisational politics increases the chances of kaleidoscope.	<i>Rejected</i>

## 5 Discussion of the findings

Hypothesis 1 anticipated that women empowerment is positively associated with innovative work behaviour and results have also emphasised a significant bond among the variables. This result is agreed with the results of Stanescu et al. (2021), Yadav et al. (2023) and Subyantoro et al. (2025) which found that there is a positive relationship between IWB and psychological empowerment. The result is also consistent with the study Rafique et al. (2022) which confirmed the existence of a positive relationship between leadership and IWB.

Hypothesis 2 anticipated that women empowerment is positively associated with CPE. Results have emphasised a significant bond among the two variables. The scholarly research demonstrates that women are increasingly able to create their own wealth via work, savings, and success in their own businesses (Laszlo et al., 2020). Ceular-Villamandos et al. (2021) support this finding as they indicate an increase in the number of successful self-employed women who also manage enterprises with quick expansion.

Hypothesis 3 anticipated that women empowerment is positively associated with kaleidoscope. As one component of a kaleidoscope is changed, it influences the other parts; so too, the decisions women make may have far-reaching effects. Before deciding on a career choice, women often examine its influence on their personal and social networks. The KCM's three variables interact and evolve throughout a woman's life to create a choice of career pathways that provide the best possible fit between her personal and professional objectives (De Clercq et al., 2021). From above results it proves that women empowerment is positively related to the kaleidoscope model. The kaleidoscope model is a framework for understanding the complexity of gender and power dynamics in society. It recognises that gender is a social construct, and that power is distributed unequally among different genders, races, classes, and other social categories (Au et al., 2021). Thus, the model also acknowledges that women's empowerment is a key factor in achieving gender equality and social justice. By understanding the complexities of gender and power dynamics, the kaleidoscope model can help to identify and address the root causes of gender inequality and empower women to take action. Throughout a woman's professional life, authenticity, balance, and challenge are the 'ABCs' of a successful career. As women's roles and responsibilities change, so do their aspirations for authenticity, balance, and challenge in the workplace.

Hypothesis 4 anticipated that CPE is positively associated with IWB. The results have also emphasised a significant bond among the variables. Employees with more influence over their work feel more creative (AlKhoori, 2022; Jeong et al., 2023). Creative process involvement allows employees to try out new ideas and promotes inventive behaviour (Jeong et al., 2023). According to Awan et al. (2024), in a creative environment, employees are motivated to be more creative and engage in thought-provoking activities. Jeong et al. (2023) indicated to the important role that workers play in demonstrating IWB by moving beyond organisational norms, discovering innovative methods to conduct their job responsibilities, and de-pending on contemporary technology. Employees that are engaged in processes and tasks can create more creative ideas to help enhance goods and services (Zhang and Chi, 2025).

Hypothesis 5 anticipated that kaleidoscope is positively associated with IWB. The results have also emphasised a significant bond among the variables. KCM's take on authenticity implies that there should be some effort put into ensuring that company values are in aligned. This means that business leaders should learn about their

employees' personal values and work to frame the company in a way that reflects those beliefs (Yafi et al., 2021). The importance of relationships as an integral part of the KCM is another aspect of balance that must be considered. Women are often abandoned by organisations when they struggle to succeed in a male-dominated field (Birdwell, 2020). Employee conduct inside the confines of the organisation is a key aspect in the manifestation of innovation, and this is especially true in a knowledge-based economy, where the ability to demonstrate IWB is essential to the success and survival of any business (Duan et al., 2022). Thus, working in a kaleidoscope environment is related with more creative thinking.

Hypothesis 6 anticipated that CPE plays a role of mediator with women empowerment and IWB. The results have also emphasised that there is a significant bond among the variables. Kumkale (2022) research shows that CPE may be important for SMEs that need to make strategic decisions quickly and effectively in high-speed, chaotic environments. Creativity is more concerned with the processes that originate the relatively new and superior ideas, therefore, IWB and employee creativity in this regard are distinct (Odoardi et al., 2019). Clarke and Higgs (2020) indicated that there is a positive association between empowerment methods and IWB.

Hypothesis 7 anticipated that kaleidoscope plays a role of mediator with women empowerment and IWB. The results have emphasised that there is a significant bond among the variables. Nazlı (2024) supported this finding, where the study indicated that the KCM offers a critical interpretivist paradigm to understand the phenomenon of women's professional advancement. Stanescu et al. (2021) and Lee and Huruta (2022) found a correlation between women's empowerment and IWB. Mutonyi et al. (2020) found that positive empowerment practices encourage the IWB of US Federal Government Employees show. The KCM women prioritised their relationships over their careers (Kapoor et al., 2022). They considered the feelings and interests of their partners, children, parents, and co-workers while making decisions. Their careers were marked by career pauses that demanded attention to non-work requirements, as well as a search for spiritual fulfilment, in order to be true to oneself and care for oneself (Sullivan and Al Ariss, 2019).

Hypothesis 8 anticipated that organisational politics plays a role of moderator with women empowerment and IWB. The results have emphasised that there is a significant bond among the variables. However, OP depicts how individuals in-side an organisation perceive others to be behaving in their best interests for their own benefit (Hochwarter et al., 2020). OP is highly linked to favouritism behaviour to maximise the interest of an individual and a specific clique, as well as the subjective acknowledgment by members that there are unique norms putting the advantage for in-group members ahead of the benefit for the whole group (Jeong and Kim, 2022). Recent empirical research has shown that OP diminishes organisational effectiveness (Jeong and Kim, 2022). Empowering people is insufficient to stimulate creativity among employees. Scholars have proved progressively that leader-member interactions promote trust, respect, support, and loyalty, and allow the learning of IWB (Alshoukri et al., 2020).

Hypothesis 9 anticipated that organisational politics plays a role of moderator with women empowerment and CPE. The results have also emphasised that there is a significant bond among the variables. Political participation and the adoption of actions and behaviour that predominate politically related activities are the primary causes of political identity in a specific society (Lam and Xu, 2019). In a dynamic and competitive

economy, preserving the competencies that drive both people and organisations to reach their objectives requires the commitment of women. Thompson-Whiteside et al. (2021) showed that in SMEs; women employee's innovative behaviour is shown to generate new ideas that may aid them in resolving challenges encountered during the working process, as well as improving their performance and contributing to the resolution of organisational problems. The importance of creative problem solving in the workplace has grown as the rivalry between organisations has intensified (Drosos et al., 2021).

Hypothesis 10 anticipated that organisational politics plays a role of moderator with women empowerment and kaleidoscope. The results have emphasised that there is an insignificant bond among the variables and rejected. The concept of women's empowerment emphasises the significance of understanding its evolution across time. Women in business utilise their positions of leadership to create a loving, supportive workplace. Women have a tendency to express their thoughts as questions, spend less time when formulating queries, and talk with a lower volume and higher pitch. This communication style does not like that of males; hence, everything women say is discounted. In contrast, women who adopt a more masculine style may be seen as more trustworthy, but less feminine (which deeply affects their womanhood). The critical paradigm KCM examines the experiences of women in an organisation to draw conclusions about how to improve the lives of individual women and the policies and institutions that influence them generally (Au et al., 2021). Changes in life context and the obligations and opportunities that are tied to those settings cause these factors to ebb and flow to the front and background of women's lives, causing the orienting qualities of women's professions to shift in intensity (Gregor et al., 2022).

## **6 Conclusions**

The research aimed to examine how women empowerment influences IWB through mediating role of CPE and kaleidoscope, as well as the moderating role of the organisational politics. The results supported most of the proposed hypotheses, demonstrating that women's empowerment directly and positively contributes to enhancing IWB. It also supports women's engagement in creative processes and strengthens their relationship with the kaleidoscope model dimensions of originality, balance, and challenge. Furthermore, it was found that both the creative process and the kaleidoscope play an important mediating role in explaining the relationship between women's empowerment and innovative behaviour, reinforcing the importance of considering these dimensions as key channels for activating the positive impact of women's empowerment within the workplace. Regarding OP, the results demonstrated that low levels of organisational policies increase the likelihood of women enhancing their innovative behaviour and supporting their engagement in the creative process and the kaleidoscope dimensions, with the exception of the latter relationship, which was not statistically significant. This suggests that a less politicised workplace provides a broader space for women's empowerment and unleashing their creative potential.

Moreover, the research found that the kaleidoscope career model (KCM) provides a helpful lens through which to examine the commonalities and differences in the professional paths of men and women throughout periods of change. The women who left their careers but then returned to them successfully illustrate the value of being genuine, maintaining a healthy work-life balance, and being open to trying something new.

Modern professional growth is not a straight line; rather, it may be chaotic, moulded by opportunities, crises, and limits, and influenced by external events such as the pandemic. This study adds to the growing body of research that suggests social ascription processes, when combined with endemic social structures, produce a pull-and-tug effect on career decision making. By using the KCM, one might deduce that the three parameters are not fixed, but rather fluid and subject to change over time.

### *6.1 Research contribution*

The current study aims to enhance the status of women in the workplace and raise awareness of the importance of empowerment in highlighting women's innovative capabilities within the workplace, which in turn reflects on the level of excellence and success in various fields. This study also seeks to overcome the difficulties and obstacles that limit the possibility of empowering women in Saudi society and their access to leadership positions, and to enact new laws that may support and enhance this, in accordance with the Kingdom of Saudi Arabia's Vision 2030. The current study also contributes to providing useful information to researchers and those interested in this field, thus motivating them to conduct more studies related to this area of research.

The theoretical findings of the study indicate its contribution to expanding the understanding of the relationship between women's empowerment and IWBs by incorporating the kaleidoscope model as a framework that explains how the dimensions of balance, challenge, and originality influence women's capacity to innovate. The study also demonstrates that engagement in the creative process represents a central mediating mechanism for transforming empowerment into innovative practices, enriching the literature on innovation and women's empowerment. Furthermore, the findings highlight the role of organisational policies as a moderating variable that limits or enhances the impact of empowerment on innovation, paving the way for new research focused on the interaction between individual and organisational factors in supporting innovation.

On the administrative level, the study emphasises the importance of adopting practical strategies to empower women within Saudi organisations through training programs, providing flexible work environments that promote work-life balance, and reducing negative internal political practices. The findings also demonstrate that fostering a culture of innovation, supporting women's leadership, and creating a fair and transparent organisational environment are essential elements for increasing women's contribution to developing innovative ideas and solutions. These recommendations are in line with the goals of Saudi Vision 2030, which places innovation and women's empowerment at the heart of its priorities to achieve sustainable economic and social development.

### *6.2 Recommendations*

Overall, the study highlights that women's empowerment is not merely a social goal or gender equality, but rather a strategic approach to fostering innovation within organisations. Based on the finding, the following recommendations are proposed:

- 1 Adopting more just and transparent organisational policies, along with providing work environments that support innovation, which will contribute to enhancing

women's creativity and effective contribution to improving institutional performance.

- 2 Aligning women's empowerment programs with Saudi Vision 2030 and emphasising the importance of continuing to support women's participation in the labour market and leadership, in line with the vision's objectives of enhancing women's economic and social role.
- 3 Promoting a culture of innovation within Saudi institutions by encouraging women to engage in creative processes and providing incentives for innovative female employees, this will improve institutional performance.
- 4 Adopt flexible work policies that support the kaleidoscope (authenticity, balance, challenge) by providing a work environment that considers the balance between women's professional and family responsibilities, encouraging them to take on challenges while preserving their identity and values.
- 5 Reducing negative organisational policies by promoting the principles of transparency and fairness in Saudi work environments and reducing internal conflicts that limit women's opportunities for empowerment and innovation.
- 6 Investing in the training and professional development of Saudi women through specialised training programs in leadership, creativity, and entrepreneurship. This will contribute to raising their competitiveness locally and globally.
- 7 Developing public-private partnerships to activate women's empowerment initiatives and enhance their contribution to innovation and productivity, with a focus on priority sectors of the national economy.

### *6.3 Implications of the findings*

Regarding the theoretical implications, this study contributes to the literature on women's empowerment and IWB by employing the kaleidoscope model to explain how the dimensions of originality, balance, and challenge enhance women's creativity within workplace environments. Its findings also provide theoretical support for the idea that engagement in the creative process represents a key mediating mechanism linking empowerment and innovative behaviour, expanding our understanding of the indirect pathways that explain this relationship. Furthermore, incorporating the organisational political dimension as a moderating factor adds a new theoretical dimension, demonstrating that the institutional context and internal policies may enhance or weaken the impact of empowerment on innovation. This opens the door to further studies focusing on the role of the organisational environment in shaping innovative behaviour.

Regarding the administrative implications; the study demonstrates that enhancing innovation requires Saudi organisations to invest in practical policies and programs to empower women beyond formal empowerment. This involves developing their professional and creative capabilities, providing flexible work environments that support work-life balance, and mitigating the impact of negative political practices. The results also reveal that raising the level of innovation is linked to adopting clear strategies to promote engagement in creative processes and activate the role of leadership that supports women. From this perspective, organisations seeking to achieve the goals of Saudi Vision 2030 can benefit from these findings by designing administrative initiatives

based on the true empowerment of women, ensuring their energies are invested in achieving innovation and sustainable development.

## 7 Limitations and future research directions

The current research topic is limited to examine the impact of women's empowerment on IWB through the mediating role of both engagement in the creative process and the kaleidoscope model, as well as the moderating role of OP.

At the spatial level, the research has been applied to the commercial and government sectors in Saudi Arabia. This means that any government or commercial sector outside Saudi Arabia will be excluded from the current research. At the human level, the current research was limited to Saudi women who hold positions in the government and commercial sectors in the Kingdom of Saudi Arabia. At the temporal level, the study was implemented during the year 2024. In addition, the study is a cross-sectional study as it is taking place at one specified point in time for conducting the research, and the quantitative survey was used to collect the desired data.

It is recommended to conduct future studies to assess the impact of women's empowerment on innovation in various Saudi sectors (such as education, health, and technology), and to identify cultural and organisational challenges that may hinder the full impact.

It is also recommended to conduct a comparative study between Saudi Arabia and other Gulf or Arab countries on the impact of women's empowerment on innovation, taking into account cultural and organisational differences. In addition, it is possible to expand the sample by applying the current model to larger samples of women working at different job levels (administrative, leadership, field) to test the reliability of the results.

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## Declarations

All authors declare that they have no conflicts of interest.

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