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The Relationship between Organizational Ambidexterity and Employees' Innovative Work Behavior: A Study on the Banking Sector Employees in Egypt

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Abstract
Most preceding studies focus on developed economies and in high-tech settings, with limited evidence from emerging markets like Egypt. This cross-sectional, quantitative research examines how organizational ambidexterity (OA) and its components—exploration and exploitation—predict employee innovative work behavior (EM-IWB) in Egypt's banking sector. Data was collected via a 26-question survey from June 10 to July 4, 2025. The study explores the relationship between OA, its dimensions, and EM-IWB, using regression analysis to test hypotheses. Results show that ambidexterity, exploitation, and exploration positively relate to innovative behavior, supporting the theoretical framework. Findings emphasize the importance of both OA components in fostering innovation. The study extends ambidexterity theory to Egypt, suggesting banks should empower employees, promote psychological safety, and provide leadership for innovation. Policymakers are also advised to stimulate sector innovation. Future research may explore digital ambidexterity, longitudinal studies, and comparisons across sectors.
Keywords – *Organizational Ambidexterity, Exploitation, Exploration, Employees' Innovative Work Behavior, Innovation, Banking Sector, Egypt.*

1. Introduction

In a highly dynamic business environment, firms need to focus not only on internal capabilities and processes but also on external opportunities. March (1991) identified organizational ambidexterity (OA) as the capability of an organization to cultivate both the exploration of new opportunities and the exploitation of deeply rooted inevitabilities. According to Simsek (2009), several organizational scholars have recently adopted the term "*ambidexterity*", which refers to the ability of human beings to use both hands with nearly equal skill, as a representation of ambidextrous organizations that can both explore and exploit. Chen (2017) distinguished between the two dimensions or orientations of organizational ambidexterity, which are exploitation and exploration. **Exploitation** emphasizes leveraging the use of existing knowledge and involves a comprehensive understanding of the company's internal capabilities and external opportunities (as cited in March, 1991). In the exploitation dimension, organizations' primary concern is achieving their short-term organizational objectives by focusing on operational business processes and activities. On the contrary, **Exploration** focuses on unearthing what organizations do not yet know (March, 1991). In the exploratory dimension, organizations focus on finding out novel ways of doing business or exploring new lines of business. Unlike exploitative organizations, exploratory ones have a considerably high level of ambiguity and low success rates.

In this article, the researcher adopted the definition of **Organizational Ambidexterity** which is provided by O'Reilly and Tushman (2013, p. 324) in their research paper, as follows: "The ability of an organization to both explore and exploit—to compete in *mature* technologies and markets where efficiency, control, and incremental

improvement are prized and to also compete in *new* technologies and markets where flexibility, autonomy, and experimentation are needed." On the other hand, employees' innovative work behavior (EM-IWB) in the workplace can be perceived as a sophisticated process consisting of multiple phases, starting with creating an idea, then promoting it, and finally realizing it.

This study focuses on Egypt's banking sector, a key part of the country's financial system that promotes economic growth. It includes public, private, and foreign banks regulated by the Central Bank of Egypt (CBE), offering a dynamic setting to explore organizational ambidexterity and employee innovation. Despite this, the sector faces numerous challenges, including balancing exploration and exploitation, resistance to change, limited employee engagement, talent retention issues, digital disruptions, fintech competition, regulatory constraints, and outdated frameworks, as discussed in the conclusion and recommendations.

1.1. Problem Statement

Although a highly regulated sector, the global banking industry has become more dynamic due to innovative Fintech technologies like AI, ML, DL, RPA, and chatbots. These disruptive technologies are influencing Egypt's banking sector, leading to rapid change. Banks must adopt an ambidextrous approach: improve internal processes efficiently (exploitative) and explore new markets and technologies (exploratory). This balance enhances employees' knowledge, critical thinking, and innovation.

Central Banks, including Egypt's, play a key role in fostering innovation by promoting best practices and new technologies like ACH, CCH, and Instant Payment. Banks should strike a balance between leveraging existing resources and seeking new ideas and tools, which in turn influences employee innovative behavior.

Since the link between organizational ambidexterity and employee innovation has not been well-studied in Egypt, especially in the banking sector, this study chiefly aims to fill this knowledge gap by investigating the relationship between organizational ambidexterity and employee innovative working behavior in the banking sector in Egypt.

2. Literature Review

2.1. Organizational Ambidexterity (OA)

The literature review suggests Duncan (1976) first used 'organizational ambidexterity,' but March (1991) explored its two main dimensions—exploration and exploitation—in detail (Raisch & Birkinshaw, 2008; Raisch et al., 2009; Andriopoulos & Lewis, 2009). In his key article, March discussed the tension between these dimensions, calling it a trade-off. Exploration involves variation, risk-taking, searching, experimenting, and innovation, while exploitation focuses on improvement, refinement, implementation, efficiency, and execution. Raisch and Birkinshaw (2008) examined antecedents, moderators, and outcomes, including factors like organizational design (Tushman & O'Reilly, 1996; Bradach, 1997; Alder et al., 1999; Gibson & Birkinshaw, 2004), strategic management (Auh & Menguc, 2005; Ebben & Johnson, 2005), leadership theory (Smith & Tushman, 2005; Beckman, 2006; Lubatkin, 2006), organizational learning (March, 1991; Levinthal & March, 1993; Burgelman, 2002; Gupta et al., 2006), technological innovation (Danneels, 2002; He & Wong, 2004; Jansen et al., 2005a; 2006), and marketing (Kyriakopoulos & Moorman, 2004). O'Reilly and Tushman (2013) reviewed ambidexterity and found it positively linked to firm performance, especially in uncertain environments and with resource abundance. They identified three types: sequential—adapting structures; structural or simultaneous—balancing via subunits; and contextual—behavioral capacity for alignment and adaptability across a business unit (Gibson & Birkinshaw, 2004). Stelzl et al. and Stelzel (2020) emphasize OA as vital for organizations in dynamic, unpredictable environments.

2.2. Employees' Innovative Work Behavior (EM-IWB)

West et al. (1996) propose that individual innovation is shaped by two key psychological aspects of human behavior. Firstly, people are naturally driven not only to explore their surroundings but also to exert control

over them, primarily through creative efforts (Nicholson & West, 1988; West & Farr, 1990; West et al., 1994). Secondly, feelings of psychological safety and a sense of freedom from threats are two vital emotions that individuals actively seek. In a work environment, the absence of either can lead to a marked decline in individual innovation, or it may cease altogether (West, 1987; West & Farr, 1990). Janssen (2000), referencing West and Farr (1989) and West (1989), defines Innovative Work Behavior (IWB) as: "the intentional creation, introduction, and application of new ideas within a work role, group, or organization, in order to benefit role performance, the group, or the organization" (p. 288). Ultimately, Usman et al. (2020), Simsek et al. (2006), Caniëls et al. (2017), and O'Reilly and Tushman (2008) emphasized the importance of leadership in fostering innovative work behavior.

2.3. OA & EM-IWB

Tushman and O'Reilly (1996) defined ambidextrous organizations as "the ability to simultaneously pursue both incremental and discontinuous innovation and change results from hosting multiple contradictory structures, processes, and cultures within the same firm" (p.24). The innovation dilemma was tackled by O'Reilly and Tushman (2008) through exploring the concept of organizational ambidexterity and its two dimensions—*exploration*: work activities that focused on discovery, innovation, and research, and *exploitation:* work practices that aimed at achieving process efficiency and ongoing improvement—depicting it as a dynamic capability that enables the organization to leverage its existing resources while concurrently exploring new opportunities. On the level of the individual employee, Caniëls et al. (2019) discovered that achieving a balance between both exploration and exploitation activities positively influences the employees' innovative work behavior.

Several case studies from various global and local locations, including Egypt, have shown that adopting OA within organizations can foster innovation, particularly at the employee level, leading to improved organizational innovation, increased profitability, and expanded market share. Some of these banks/organizations are: ING, BBVA, DBS, Bank of America, CIB Egypt, AAIB, and MDI (owned by Banque Misr).

3. Research Design and Methodology

3.1. Introduction

The study adopts a positivist philosophy with a descriptive-deductive approach to examine how OA, exploration, and exploitation activities affect employee IWB in Egypt's banking sector. Using a cross-sectional, non-experimental quantitative method, it employs multiple linear regression to analyze the relationship between OA, exploration, and exploitation (predictor variables) and employees' innovative work behavior (dependent variable). Data were collected via surveys distributed to bank employees on an individual level through digital platforms, targeting at least 384 participants using a non-probability, convenience sampling technique. The survey was conducted once, aiming to represent the broader population.

3.2. Conceptual Framework

This research proposes that OA, exploration, and exploitation (predictor variables) have a positive impact on the dependent variable, employees' innovative work behavior (EM-IWB). Figure 1 depicts the relationship between the research variables based on the research hypotheses.

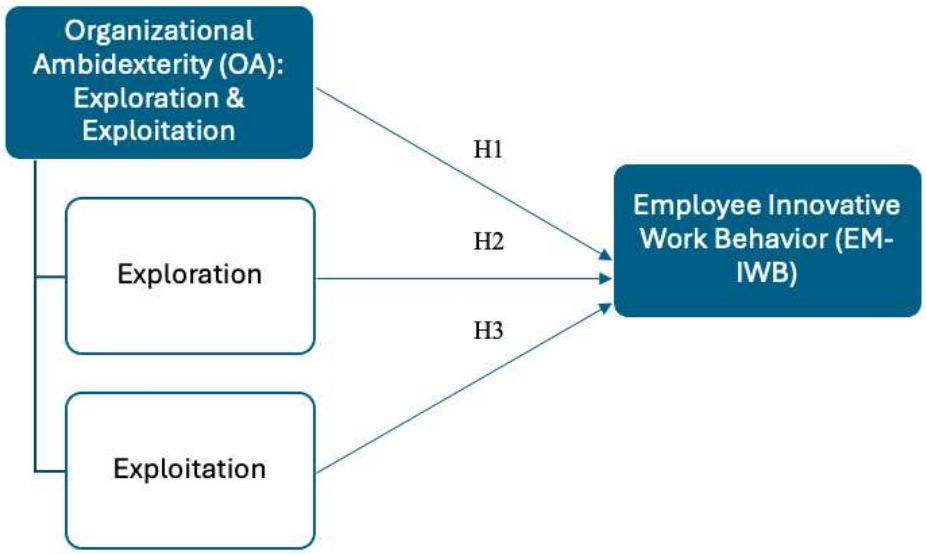

Figure 1: *The Conceptual Framework*
Source: *Developed by the researcher*

3.3. Research-Related Questions and Hypotheses

From the previous literature review, the following hypotheses were formed:

RQ (1): To what extent is there a relationship between Organizational Ambidexterity (OA) and Employee Innovative Work Behavior (IWB)?

H1: Organizational Ambidexterity (balancing between exploration and exploitation) is positively related to employee innovative work behavior (EM-IWB).

RQ (2): To what extent is there a relationship between Exploitation activities, discretely, and Employee Innovative Work Behavior (EM-IWB)?

H2: The employees' exploitative work activities are positively related to employee innovative work behavior.

RQ (3): To what extent is there a relationship between Exploration activities, discretely, and Employee Innovative Work Behavior (EM-IWB)?

H3: The employees' explorative work activities are positively related to employee innovative work behavior.

3.4. Research Population and Target Sampling

The Central Bank of Egypt's monthly bulletin reports 141,898 employees in Egypt's banking sector (excluding CBE staff) as of June 2024 (Central Bank of Egypt, 2025), and 36 registered banks as of February 6, 2025 (Central Bank of Egypt, 2025). For survey purposes, employees must be white-collar and have at least three years of experience. However, others are encouraged to participate regardless of age, gender, department, or position, aiming for at least 384 participants via a non-probability, convenience sampling technique.

3.5. Data Collection Tool & Measurement Scales

A five-point Likert-scale questionnaire was composed to measure the research predictor and dependent variables. This questionnaire contains a total of 26 questions divided into two main sections. The first section relates to the OA approach using a **12-item scale**, which can be either explorative or exploitative. Furthermore, this scale consists of two parts: six items to evaluate the explorative orientation, and six other items to examine the exploitative orientation. Respondents were asked to evaluate their bank's orientation

over the previous three years from their perspective **(Lubatkin et al., 2006; Patel et al., 2013; Priyanka et al., 2022)**. The second one concerns the EM-IWB; a **14-item scale**, developed by **Kleysen et al. (2001),** used by the researcher to measure the EM-IWB from the employee's perspective which contains five main dimensions: (a) opportunity/idea exploration, (b) generativity/idea generation, (c) formative investigation, (d) championing, and (e) application/ implementation.

Primary data were collected in two phases: firstly, in a pilot phase, a bilingual questionnaire (Arabic and English) was distributed to a few subject matter experts (SMEs) to validate the understandability of the questions and to ensure its relativity to the Egypt's context, none of the questions were removed and questions were understandable to all of them both in Arabic and English. Secondly, the primary phase, where the compiled questionnaire was distributed, using Google Forms, at a larger scale to obtain the main sample.

4. Statistical Analysis and Findings

The entire primary dataset was gathered from banking employees in Egypt from June 10 to July 4, 2025, with a final sample of 480 respondents (including 50 pilot participants) out of 502 responses, resulting in a valid response rate of 95.6% of the total collected responses. The pilot study (N=50), conducted in early June, confirmed measurement reliability. The 430 responses analyzed examine relationships among Organizational Ambidexterity (OA), its sub-dimensions, and Employees' Innovative Work Behavior (EM-IWB). Using SPSS, descriptive statistics, normality tests (Kolmogorov-Smirnov and Shapiro-Wilk), reliability analysis, correlation analysis, regression analysis, and hypothesis testing were performed on the data collected during both phases: the pilot phase and the main study.

4.1. Pilot Study Statistical Results

4.1.1. Normality Tests

Table 1: Normality Tests for All Elements and Variables of the Pilot Study

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Organizational Ambidexterity	.339	50	.000	.825	50	.000
Exploratory Orientation	.243	50	.000	.885	50	.000
Exploitative Orientation	.248	50	.000	.887	50	.000
Employees' Innovative Work Behavior	.206	50	.000	.848	50	.000

a. Lilliefors Significance Correction

The Kolmogorov-Smirnov and Shapiro-Wilk tests show that all four variables—Organizational Ambidexterity, Exploratory Orientation, Exploitative Orientation, and Employees' Innovative Work Behavior—significantly deviate from normal distribution, with Sig. values below 0.001. This confirms their data is not normal. Accordingly, non-parametric methods like Spearman's rho are suitable for analysis.

4.1.2. Reliability Tests

Table 2: Reliability of Study Variables (N = 50) for the Pilot Study

Variable	No. of Items	Reliability Coefficient by Cronbach's α
Organizational Ambidexterity	12	0.911

Variable	No. of Items	Reliability Coefficient by Cronbach's α
Exploratory Orientation (Exploration)	6	0.894
Exploitative Orientation (Exploitation)	6	0.805
Employees' Innovative Work Behavior (IWB)	14	0.897

The 12-item Organizational Ambidexterity (OA) scale has a Cronbach's alpha of 0.911, resulting in excellent internal consistency, indicating that the items are highly related and measure the same construct reliably. The Exploratory Orientation scale, with six items, has a Cronbach's alpha of 0.894, also representing high reliability. The Exploitative approach scale demonstrates a Cronbach's alpha of 0.805, showing good internal consistency. The Employees' Innovative Work Behavior (EM-IWB) scale has a Cronbach's alpha of 0.897, reflecting high reliability. All these values indicate that the scales are consistent and reliable for further analysis.

4.1.3. Correlation Tests

Table 3: The Correlation Test of All Elements and Variables of the Pilot Study (N=50)

Correlations

			Organizational_Ambidexterity	Exploratory_Orientation	Exploitative_Orientation	Employees_Innovative_Work_Behavior
Spearman's rho	Organizational Ambidexterity	Correlation Coefficient	1.000	.822**	.843**	.398**
		Sig. (2-tailed)	.	.000	.000	.004
		N	50	50	50	50
	Exploratory_ Orientation	Correlation Coefficient	.822**	1.000	.587**	.394**
		Sig. (2-tailed)	.000	.	.000	.005
		N	50	50	50	50
	Exploitative_ Orientation	Correlation Coefficient	.843**	.587**	1.000	.445**
		Sig. (2-tailed)	.000	.000	.	.001
		N	50	50	50	50
	Employees_ Innovative_ Work_Behavior	Correlation Coefficient	.398**	.394**	.445**	1.000
		Sig. (2-tailed)	.004	.005	.001	.
		N	50	50	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Relations between Organizational Ambidexterity, Exploratory and Exploitative Orientations, and Employees' Innovative Work Behavior were scrutinized by Spearman's rho analysis. Results indicate a positive correlation between Organizational Ambidexterity (OA) and Innovation (EM-IWB) (ρ=0.398, p=0.004), showing that more ambidextrous organizations encourage employee innovation. Both orientations, exploration and exploitation, also positively relate to innovation; Exploratory (ρ=0.394, p=0.005) and Exploitative (ρ=0.445, p=0.001). Intercorrelations among variables are significant: Organizational Ambidexterity correlates

with Exploratory (ρ=0.822, $p<0.001$) and Exploitative (ρ=0.843, $p<0.001$) orientations, emphasizing their interconnectedness.

4.1.4. Conclusion of the Pilot Study

The pilot study provides insights into how organizational ambidexterity, encompassing both exploratory and exploitative orientations, relates to employees' innovation. All three variables positively correlate with innovative behavior, proposing that balancing exploration and exploitation fosters workplace innovation. The measurement scales are confirmed by reliability analyses, which indicate that they are consistent, supporting the validity of these findings. The intercorrelations underscore the complicated nature of exploration and exploitation in effective organizations. In general, the study offers a solid foundation for further research, as the significant relationships and reliable measures support the hypotheses that promoting ambidexterity could enhance workplace innovation. These findings justify expanding to the full dataset for deeper, more generalizable insights.

4.2. Main Study Statistical Results

4.2.1. Normality Tests of the Main Study

Table 4: Normality Tests of Key Variables for the Main Study (N = 430)

Variable	Kolmogorov-Smirnov Statistic	Kolmogorov-Smirnov *p*	Shapiro-Wilk Statistic	Shapiro-Wilk *p*
Organizational Ambidexterity	0.073	< .001	0.979	< .001
Exploratory Orientation	0.108	< .001	0.963	< .001
Exploitative Orientation	0.102	< .001	0.972	< .001
Employees' Innovative Work Behavior (IWB)	0.077	< .001	0.971	< .001

As shown in **Table 4**, the p-values for both the K-S and S-W tests are **below .001 across all variables**, leading to the rejection of the null hypothesis of normality. In essence, **organizational ambidexterity**, **exploratory orientation**, **exploitative orientation**, and **employees' innovative work behavior** all show significant deviation from a normal distribution. These findings imply the data are not normally distributed. Typically, with a large sample size (N = 430), even minor deviations from normality can be statistically significant. Therefore, it is helpful to supplement these tests with visual examinations of the data distributions.

4.2.2. Descriptive Statistics and Reliability Analysis of the Main Study

Table 5: Descriptive Statistics and Reliability of Study Variables (N = 430) for the Main Study

Variable	Mean	SD	No. of Items	Cronbach's α
Organizational Ambidexterity	3.7	0.7	12	0.914

Variable	Mean	SD	No. of Items	Cronbach's α
Exploratory Orientation (Exploration)	3.6	0.8	6	0.899
Exploitative Orientation (Exploitation)	3.5	0.7	6	0.822
Employees' Innovative Work Behavior (IWB)	3.4	0.6	14	0.938

Table 5 represents participants perceive high organizational ambidexterity **(Mean ≈ 3.7)** in their organizations, with **Exploratory (≈ 3.6)** and **Exploitative (≈ 3.5) orientation**s above neutral, showing engagement in both exploration and exploitation. **Employees' Innovative Work Behavior** averaged about 3.4, suggesting moderate to frequent innovative actions. Standard deviations (0.6-0.8) reflect some response variability but no extreme differences. In general, the data show a workforce actively balancing exploration, exploitation, and innovation.

Before testing hypotheses, the reliability of each construct was evaluated by Cronbach's alpha. High values imply consistent measurement. As shown in **Table 5**, all constructs had significant internal consistency: Organizational Ambidexterity **(α=0.914)** combined exploratory and exploitative items, with sub-dimensions Exploratory Orientation **(α=0.899)** and Exploitative Orientation **(α=0.822)** also reliable. The Employees' Innovative Work Behavior scale (14 items) had an alpha of **(α=0.938)**. These high alpha values suggest that the items are highly intercorrelated and well capture their constructs. These reliable measures support confidence in the findings and allow further examination of the relationships between the variables.

4.2.3. Correlation Analysis of the Main Study

Table 6: Spearman's Correlations among Organizational Ambidexterity, Its Dimensions, and Innovative Work Behavior (N = 430) of the Main Study

Correlations

			Organizational_Ambidexterity	Exploratory_Orientation	Exploitative_Orientation	Employees_Innovative_Work_Behavior
Spearman's rho	Organizational_Ambidexterity	Correlation Coefficient	1.000	.942**	.894**	.422**
		Sig. (2-tailed)	.	.000	.000	.000
		N	430	430	430	430
	Exploratory_Orientation	Correlation Coefficient	.942**	1.000	.707**	.393**
		Sig. (2-tailed)	.000	.	.000	.000
		N	430	430	430	430
	Exploitative_Orientation	Correlation Coefficient	.894**	.707**	1.000	.394**
		Sig. (2-tailed)	.000	.000	.	.000
		N	430	430	430	430
	Employees_Innovative_Work_Behavior	Correlation Coefficient	.422**	.393**	.394**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	430	430	430	430

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6 represents the correlation matrix for four key variables. **Organizational ambidexterity (OA)** is the primary construct, with exploratory and exploitative orientations as its dimensions, and IWB indicates

employees' innovative work behavior. There is a **moderate positive correlation** between **OA and IWB** (ρ=0.422, p<0.001). Both **exploratory** (ρ=0.393, p<0.001) and **exploitative** orientations (ρ=0.394, p<0.001) are **positively related to IWB**. **OA has a strong correlation with its sub-dimensions**: ρ=0.942 with **exploratory** and ρ=0.894 with **exploitative** orientations (both p<0.001). **The two orientations are also highly correlated** (ρ=0.707, p<0.001). These results support the hypothesized positive relationships between ambidexterity, its two orientations, and IWB, with all coefficients significant at 0.01, affirming that these are unlikely due to coincidence. This prepares the stage for further regression analyses testing these hypotheses.

4.2.4. Regression Analysis of the Main Study

Table 7: Summary of Simple Linear Regression Results for Predictors of Innovative Work Behavior (Main Study)

Predictor Variable	**β (Standardized)**	**R^2**	**F (df=1, 428)**	**Sig. (p)**
Organizational Ambidexterity	0.403	0.162	82.848	< .001
Exploratory Orientation (Exploration)	0.346	0.120	58.333	< .001
Exploitative Orientation (Exploitation)	0.408	0.166	85.342	< .001

Three regression analyses were performed to evaluate the predictive power of OA and its two orientations on the EM-IWB. Each analysis tested one independent variable—overall ambidexterity, exploitative, or exploratory orientation—to avoid multicollinearity and examine hypotheses individually. All models used ordinary least squares in SPSS. Results are summarized in **Table 7**. The model for **OA** explained **16.2%** of variance in IWB (R^2 = 0.162), with a significant fit (F = 82.848, p < .001). The unstandardized coefficient (B=0.527, p < .001) suggests a one-unit increase in ambidexterity raises IWB by about 0.53 units. The standardized beta is 0.403. **The exploratory orientation** model explained about **12%** of the variance (R^2=0.120, F=58.333, p < 0.001). The coefficient B=0.383 (P < 0.001) indicates that each unit increase in exploratory orientation increases IWB by 0.383. The beta is 0.346. **The exploitative orientation** explains **16.6%** of variance (R^2=0.166, F=85.342, p < .001). The coefficient B = 0.549 (P < .001) indicates that a one-unit increase predicts a 0.549 rise in IWB, with a beta of 0.001.

4.2.5. Hypotheses Testing

Table 8: Summary of the Hypotheses Testing Results

Hypothesis	**Hypothesis Direction**	**Outcome**	**Spearman's ρ (p)**	**Regression β (p)**
H1: Positive relationship between **Organizational Ambidexterity** and **IWB**.	**Positive**	**Supported** □	0.422** (< .001)	0.403** (< .001)
H2: Positive relationship between **Exploitative Orientation** and **IWB**.	**Positive**	**Supported** □	0.394** (< .001)	0.408** (< .001)
H3: Positive relationship		**Supported** □	0.393** (<	0.346** (<

Hypothesis	Hypothesis Direction	Outcome	Spearman's ρ (p)	Regression β (p)
between **Exploratory Orientation** and **IWB**.	**Positive**		.001)	.001)

Based on the correlation and regression results, the three hypotheses are evaluated:

H1: Organizational Ambidexterity is positively related to Employees' Innovative Work Behavior. **Supported:** Significant positive relationship demonstrated by Spearman's ($\rho = 0.422$, $p < .001$) and regression ($\beta = 0.403$, $p < .001$, $R^2 = 0.162$). Organizations that balance between exploration and exploitation tend to have more innovative employees.

H2: Employees' exploitative work activities are positively related to Employees' Innovative Work Behavior. **Supported:** Exploitative orientation associated with higher IWB; Spearman's ($\rho=0.394$, $p < .001$) and regression ($\beta=0.408$, $p < .001$, $R^2=0.166$). Focusing on improving current processes fosters innovation.

H3: Employees' explorative work activities are positively related to Employees' Innovative Work Behavior. **Supported:** Explorative activities linked to IWB; Spearman's ($\rho=0.393$, $p < .001$) and regression ($\beta=0.346$, $p < .001$, $R^2=0.120$). Engaging in exploratory activities promotes innovation.

All three hypotheses are accepted, showing robust convergent evidence for positive relationships between ambidexterity, exploitation, exploration, and innovation.

4.3. Summary of Findings (Conclusion)

All variables demonstrated reliable, and despite non-normal data distribution, appropriate non-parametric correlation and regression analyses were used. **Key findings: (i) OA** significantly predicts the EM-IWB, with a moderate positive correlation ($\rho \approx 0.42$) and regression coefficient ($\beta \approx 0.40$), explaining about 16% of variance, **(ii) Exploitative Orientation** shows a stronger link to innovation, with $\rho \approx 0.39$ and explaining 16.6% of variance ($\beta \approx 0.41$), **(iii) Exploratory Orientation** also relates positively, with $\rho \approx 0.39$, $\beta \approx 0.35$, accounting for 12% of variation. **All hypotheses (H1, H2, H3) are supported**, confirming that ambidexterity and its components contribute to innovation. Results underscore the importance of balancing exploration and exploitation, with data reinforcing the findings through consistent analyses.

5. Discussion

Based on the findings, **the first hypothesis** was confirmed, showing a significant positive relationship between organizational ambidexterity (OA) and employees' innovative work behavior (IWB). This shows that banks with a balance of exploratory and exploitative approaches tend to have more innovative employees, aligning with studies like Tushman and O'Reilly (1996), Simsek et al. (2006), and others.

The second hypothesis supported a slightly stronger positive effect of exploitative orientation on IWB, suggesting that focusing on improving current processes fosters innovation more than other approaches. This aligns with Caniëls et al. (2019), showing that specialization can lead to high IWB, challenging the belief that only a balance between approaches is effective.

The third hypothesis confirmed a positive, though smaller, effect of exploratory orientation on IWB, underscoring that seeking novel opportunities encourages innovation, but may need support from other factors like exploitation or resources. This also agrees with Caniëls et al. (2019), challenging the idea that balance is always necessary for high IWB.

6. Research Implications

6.1. Theoretical Implications

This study highlights **two main implications**: **first**, expanding organizational ambidexterity (OA) theory to emerging markets and the MENA region, especially Egypt. Most of the previous research studies occurred in Western high-tech and developed countries (Marabelli et al., 2012; Cantarello et al., 2012; Wasilewski, 2019; Clauss et al., 2021). Meanwhile, this research study advances OA literature by applying it to the MENA region. **Second**, it bridges micro and macro organizational levels, focusing on individual employees—an area less explored, with most studies concentrate on organizational or unit levels (March, 1991; Tushman and O'Reilly, 1996; O'Reilly and Tushman, 2008; Marabelli et al., 2012; Cantarello et al., 2012; Wasilewski, 2019; Clauss et al., 2021).

6.2. Practical Implications

The study concludes with several practical recommendations for banks, such as **(i)** encouraging an ambidextrous culture to foster innovation among employees, **(ii)** developing innovation labs with cross-functional teams to be a safe place for employees to brainstorm and come up with unconventional ideas, **(iii)** instigating dual career pathways (exploration and exploitation orientations), **(iv)** using cross-departmental or cross-functional rotations with motivating incentives, either monetary, psychological, or both, **(v)** Senior Leadership team can apply the POPIT model to assess current and target states, focusing on People, Organization, Processes, Information, and Technology to balance exploratory and exploitative activities, **(vi)** additionally, banks should cultivate in their staff through training, development programs focusing on ambidexterity, and acknowledgement of creative efforts, promoting innovative behavior.

6.3. Managerial Implications

The study summaries several managerial implications for banks, such as **(i)** providing extensive training and development programs to the Senior Leadership Team (SLT) and managers focusing on ambidextrous, transformational, participative, and servant leadership styles to foster innovation and staff empowerment; developing ambidextrous skills across all management levels results in balancing operational efficiency with innovation; **(ii)** encouraging psychological safety among employees to encourage candid communication and risk-taking; **(iii)** leading by example in adopting an ambidextrous approach during routine activities to inspire staff; and **(iv)** connecting performance metrics to innovation targets with rewards and incentives to motivate generating new ideas, services, products, and solutions. These approaches aim to improve both organizational innovation and operational efficiency.

6.4. Implications for Policymakers (Regulatory Bodies)

The study suggests several policy recommendations, like **(i)** creating regulatory sandboxes in Egypt for digital fintech innovation, **(ii)** incentivizing banks to establish R&D departments to enable them to obtain real-time data and support in the decision-making process, and **(iii)** encouraging partnerships and collaborations between banks and fintech startups to encourage innovation while maintaining regulatory compliance. Case studies of global banks like BBVA, ING, BofA, and DBS support these ideas, in addition to some local banks like CIB Egypt, AAIB, and MDI (owned by Banque Misr).

7. Proposed Roadmap

Furthermore, the researcher utilized management approaches and tools to develop a practical, three-phase roadmap for organizations and banks to put into action. A 90-day hothouse workshop is advised to assess and finalize the first two phases. The third phase spans a year, with three months designated as a pilot and nine months for full deployment of the ambidexterity approach. **Table 8** below summarizes the three phases:

Table 8: The Proposed Roadmap Summary

Phase	Duration	Key Actions
Assessing the Organization's VMOST	1.5 months	**It encompasses identifying the following items:** 1. The bank's vision. 2. The bank's mission. 3. SMART Objectives. 4. The bank's Strategy. 5. The relevant Tactics. Paul & Cadle (2020) & Cadle et al. (2021)
Evaluating the Organization's POPIT Model	1.5 months	**It includes evaluating the bank in terms of:** 1. People. 2. Organization. 3. Processes. 4. Information. 5. Technology. Paul & Cadle (2020) & Cadle et al. (2021)
Implementing the Change	3-month (Pilot Phase). 9-month (full implementation).	**The Kotter's 8-stage approach to be followed** *(To be taken into consideration from the first phase)***:** 1. Establishing a sense of urgency. 2. Creating the guiding coalition. 3. Developing a vision & strategy (already addressed in the VMOST). 4. Communicating the change vision. 5. Empowering employees to act. 6. Generating short-term wins. 7. Consolidating gains and producing more change. 8. Anchoring new approaches in the culture. Cadle et al. (2021) **Intermingled with:** Deploying change through Pilot Implementation Strategy. Paul & Cadle (2020) & Cadle et al. (2021)

Source: *Developed by the Researcher*

8. Research Limitations

This study has some limitations that future research can tackle. Limitations include: **(i)** results are specific to Egypt during June-July 2025 and focus entirely on the banking sector; **(ii)** it only considered three independent variables—organizational ambidexterity, exploitation, and exploration orientations—on the dependent variable, employees' innovative behavior, excluding other factors; **(iii)** the cross-sectional design, with 502 responses (including 50 from a pilot phase and 22 excluded), provides limited insights; a longitudinal study could better explore how OA and its dimensions (exploration and exploitation) can influence organizational innovation in general and EM-IWB specifically; finally **(iv)** the self-report online questionnaire may have inaccuracies. Ultimately, the findings cannot be broadly generalized due to constraints related to time, location, sector, resources, and sample size.

9. Recommendations for Future Research

Eventually, this research provides valuable insights into how organizational ambidexterity relates to employees' innovative work behavior (IWB) in Egypt's banking sector, within a developing MENA economy. Notwithstanding its contributions, it has the previously discussed limitations that suggest future research directions. Proposed future avenues include **(i)** adopting longitudinal studies to examine causality over time; **(ii)**

conducting cross-cultural comparisons across MENA countries to identify cultural influences such as power distance and collectivism; and **(iii)** expanding to include other nationalities for broader insights; **(iv)** exploring additional variables such as organizational culture, leadership styles, learning, agility, and sustainability in the future work; **(v)** employing qualitative or mixed methods, such as interviews and case studies, to reveal deeper mechanisms behind employee responses; **(vi)** given rapid digital transformation across different industries and sectors, including banks, research into digital ambidexterity—balancing current digital assets and emerging technologies like big data, blockchain, and AI—is crucial; finally, **(vii)** conducting cross-industry research studies can extend findings to healthcare, education, and other sectors.

Overall, these future directions can improve understanding and pragmatic application of organizational ambidexterity, directing leaders, managers, and policymakers in fostering innovation amidst the growing challenges in this dynamic and digital era.

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