

The role of public investment funds in driving Saudi vision 2030's societal transformation

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Abstract: In 2016, Saudi Arabia launched Vision 2030, which aims to shift the country beyond oil dependency. Vision 2030 is based on three main themes, one of which is the concept of a 'Vibrant Society,' which aims to strike a balance between development and preserving Saudi Arabia's cultural, religious, and national traditions. This research explores how the Public Investment Fund (PIF) contributes to achieving the "A Vibrant Society" theme under Saudi Arabia's Vision 2030 by applying change management strategies, digital transformation, stakeholder engagement, and transformational leadership. This study adopts a mixed-methods approach. It integrates quantitative survey data collected from 211 participants, which were statistically analyzed using Smart PLS, along with qualitative insights from expert interviews across multiple sectors. These insights were analyzed using thematic pattern analysis. Digital transformation and leadership are the most influential enablers of societal transformation, while structured change management and stakeholder engagement also play essential roles. The data relied on self-reported perceptions, which may be influenced by optimism bias. The sample, though sufficient, may not fully represent all key stakeholder groups involved in PIF's projects.

Keywords: Change management, Digital transformation, Leadership, Public investment fund (PIF), Stakeholder engagement, Vision 2030.

1. Introduction

Vision 2030 presents a comprehensive plan to achieve economic diversification, ensuring that citizens are active economic stakeholders and creating a promising environment for Saudi Arabia to establish its position as a leading global economy [1]. By prioritizing these pillars, the Kingdom produces the circumstances for sustainable economic growth and innovation. The Public Investment Fund, the sovereign wealth fund of the Kingdom of Saudi Arabia, plays a pivotal role in implementing Vision 2030 projects and initiatives [2]. As a driving force behind the Kingdom's economic transformation, the Public Investment Fund is focused on promoting local economic development, adopting new technologies, and expanding its global investment portfolio. PIF created over 100 companies in 13 strategic sectors, including real estate, healthcare, entertainment, automotive, and retail. Additionally, the Public Investment Fund's Giga-projects, including NEOM, Qiddiya, Roshan, Diriyah, and Red Sea Global, are designed to catalyze economic growth and diversify the economy beyond oil. These mega projects aim to achieve long-term impacts that extend beyond the real estate and infrastructure sectors.

Change management is a critical and essential path that will guide how this significant mandate is achieved and ensure that achieving these objectives is feasible and manageable. This study will navigate the role of PIF as a driving force for change in achieving a vibrant society. A significant dilemma is ensuring that the initiatives taken by PIF align with the social and cultural sensitivities of Saudi society

while achieving transformation at the same time. Large projects face challenges such as overcoming resistance to change, engaging stakeholders, and achieving long-term acceptance. If not approached with these established measures, there is the potential for public grievances, costly engagement, and sluggish civic participation. Thus, managing change becomes a component. Several models, including Kotter's Eight-Stage Process of Creating Change and Lewin's Force Field Theory, offer systematic mechanisms for removing barriers, enlisting diverse stakeholders, and generating effective change.

PIF's involvement in Vision 2030 is a unique situation where structured change management frameworks are implemented at the country level. This gap will be filled by understanding how PIF utilizes change management frameworks to address societal barriers, engage stakeholders, and ensure transformation sustainability, as this project aims to achieve. This research examines how the PIF supports the "A Vibrant Society" theme of Vision 2030 by investigating the process of change management theories and models applied to modify societies. The research will also examine issues such as stakeholder engagement, resistance to change, policy implementation, and the impact of digital transformation and transformational leadership in addressing these issues. Ultimately, the study aims to make the research relevant and practical by providing recommendations that can be applied by PIF leadership to implement change management in ways that align with the intent of Vision 2030.

2. Literature Review and Hypothesis Development

2.1. Structured Change Management Models

Lewin [3] change model is one of the earliest and most widely recognized models of organizational change. Kurt Lewin's three-step model postulates that any understanding of change theory necessitates understanding stability. He referred to the forces that contribute to change as motivating forces and those geared towards maintaining stability as limiting forces [4]. Stability exists when an organization's driving and resisting forces are in equilibrium.

The Unfreezing stage of Lewin's theory involves this step, which entails defining the current state, identifying the driving and resisting forces, and envisioning the desired end state [5]. Changes need to be validated, as well as a description of how the reforms are likely to play out. The purpose of this stage is to prepare the organization for a transformation [6]. Step 2: Change: Transition to a New State through Involvement and Contribution. At this stage, job rotations modify employees' behavior [7]. Refreeze's final stage involves reinforcing the new state of affairs by implementing guidelines and policies, rewarding success, and establishing new norms [5]. He set activities to integrate new organizational practices. One needs to demonstrate the new system's advantages to convince the organization's staff of the efficacy of new methods [8].

Kotter's 8-step change model is a widely recognized framework for implementing successful organizational change in various industries. Kotter's change model highlighted the importance of an all-inclusive approach to change, and the chance of successful implementation of organizational changes is only 30%. Although employees will see advancement, leaders must be ready to face opposition from inside the organization. The way forward is to correctly address the opposition and highlight the contradictions in the resistant idea that the new practice aims to overcome [9]. Kotter's 8-step are Creating urgency to ensure people know why the change, Building a guiding coalition by assign visionary leader drive the team, Developing a clear vision to have clear goal and shared direction, Communicating the vision with people to understand and support, Empowering stakeholders by equip them with required tools and skills, Generating quick wins to maintain momentum, Consolidating gains by sharing the successful initiative, Anchoring new approaches by establishing policies and procedures.

ADKAR, a global consulting team founded in 1994 and focused exclusively on change management, argues that the success of a change management initiative requires integrating individual and organizational change management [10]. To support people through change, Prosci provides the ADKAR model, an acronym that stands for awareness of the need for change, desire to implement the change, knowledge of how to make the change, ability to apply the desired skills and behaviors, and reinforcement of the change. The success of an organizational change depends on how people effectively

adopt and utilize the change [11]. A change considered to be successful only when every impacted employee has grasped the five milestones of the ADKAR model, i.e., when the people affected by change are aware of the need and urgency of the change, have the desire to change and have the skills and applied knowledge on how they will work after the change. In addition, managers must strengthen the change procedure by establishing a comprehensive control and assessment system, which can highlight hurdles that all stakeholders, particularly employees in the organization, face [12]. This will encourage them to overcome these obstacles and motivate them to stay involved in the change process.

To manage change, managers adopt various change management models, such as ADKAR, Kurt Lewin's change model, and Kotter's 8-step model [12]. Therefore, the following hypothesis is proposed:

H1: Structured change management models enhance stakeholder alignment, facilitate implementation, and improve adaptability in PIF-led societal transformations under Vision 2030.

2.2. Change Management in Large-Scale Transformations

Vision 2030's transformation is a massive mandate that aims to transform and shift the Saudi nation toward massive development, innovation, and creativity. To achieve this, several aspects will accelerate the process, including leadership, effective change management, and adopting and managing digital transformation. Digital transformation is a cornerstone of development and a key focus of Vision 2030. Digital technologies have become an integral part of our everyday lives, influencing our daily routines, work, communication, and behaviors. Furthermore, organizations face rapid digital transformation requirements that impact their operations [13].

Digital transformation encompasses a range of meanings, including converting paper documents to digital form, transitioning to a new software system, training staff on digital technology usage, and employing artificial intelligence, among others. Digital transformation encompasses the comprehensive transition from analog to digital. Hayes [6] helped classify digitization as the rising use of data and communication technologies.

Vaz [14] acknowledged the four forces influencing digital transformation: customer behaviors, technological change, business models, and societal impact. The concept, "The customer is always right," is a motto in the digital age. Technological change occurs due to ongoing technological developments, as technology continually evolves and is never stagnant. Vaz [14] states, "Technology is the enabler that allows businesses to identify and unlock customer value and to connect with them. Anderson and Ackerman Anderson [15] studied digital transformation and its impact on organizational culture. Even though transformations are primarily technology-related, some obstacles exist between accepting new technologies and employees' acceptance of the new change. .

The culture within an organization can encompass cultural struggles, individuals with untruthful intentions, and exceptional employees [16]. Another difficulty is that employees assess organizational change as a threat or an opportunity. Some employees may perceive organizational change as a threat due to the potential for job loss, the need for new learning, and uncertainty. The resistance demonstrates the emotions that people experience in response to perceived threats [17]. For example, individuals may fear adopting new work habits [18] or their potential inability to perform various tasks [19]. These emotions are practiced at group and individual levels (Niedenthal & Brauer, 2012). On the other hand, some employees may accept the change and understand it as an opportunity for improvement, learning, and higher wages [6].

As part of the digital organizational culture, the need for evolving cross-functional teams enables organizations to function efficiently. Teams are shaped to reduce conflicts and misperceptions among staff. Additionally, having cross-functional teams enables earlier innovation cycles [20]. Another vital skill within an organization that focuses on digital technologies is the ability to acquire the necessary digital skills for success. Open-minded employees are required to be aware of the technologies necessary for digital transformation [20].

To navigate the digital transformation role in Vision 2030, and mainly how PIF utilizes it, the following hypothesis is proposed:

H2: Digital transformation supports PIF projects under Vision 2030 by enhancing accessibility, improving governance arrangements, and overcoming societal resistance, thereby enabling smooth implementation and stakeholder engagement.

2.3. Public Investment Fund's Role in Driving Change and Overcoming Resistance

Change is always challenging to plan for, yet remains deeply necessary for survival. This is why change management remains a topic of interest in several management-related university studies. There are entire units that are enthusiastic about its study, and elements of it permeate most other units, so that students gain some approaches for managing change when they enroll in their careers as managers [21].

The driving force behind the topic of organizational change has been a focused and essential quest by scholars and practitioners in the management field [22] stated that it is challenging to identify the sequence of events that lead to the unfolding of the change events.

Resistance to change can be understood as an attitude or behavior exhibited by an individual who is unable to recognize the purpose of change goals [5]. Employees who exhibit opposite reactions to changes will have significant consequences, as they will impact the success of the planned changes Fugate, et al. [23]. Anderson and Ackerman Anderson [15] Identify several drivers of change, beginning with external forces and moving to internal forces. They described external forces as those that leaders are more familiar with and will not consider first when determining the underlying cause of the change and the extent of its impact. Internal drivers are more challenging to identify and address, but if left unattended, they can lead to a project's failure. These include, but are not limited to, cultural requirements, leader and employee behaviors, and leader and employee way of thinking Altalhi [24]. Oreg [25] mentioned in his research that resistance to change is an individual characteristic that indicates a negative attitude toward change, and there are ways to avoid and even overcome it. Employees who resist change must have specific goals and objectives that management can address; therefore, resistance to change is a crucial factor to consider in organizational change programs.

Knowing the reason behind the change or the purpose of the shift can help resolve resistance; employees were 43% less resistant to change when an explanation was provided [26]. Similarly, Beer, et al. [8] noted that consistently expressing the vision, so that it is clear to employees what their roles and involvement in the change might be, is a way to avoid resistance.

Linking change management theories and models to dealing with resistance, Kotter's eight phases include increasing urgency, building a guiding team, developing the vision, communicating for conviction, empowering action, creating short-term wins, not letting up, and making change permanent Okolie and Memeh [27]. Kovach [28] model's extreme strength lies in its first two phases: increasing urgency and building a guiding team. Many leaders move fast into changes before realizing or recognizing the actual need for change inside the organization. They believe they can lead change by force, by authority or another source of power, rather than with the support of employees, who are capable and motivated to understand and support the changes. On the other hand, Kotter presents a complete checklist of everything to consider during the transition process, allowing a smooth transition [29].

However, Salem [30] stated that change management models and theories need to be adjusted depending on the type of change and the organization when applying change [31]. Even though change is applied for required purposes, such as adapting to unstable environmental conditions and maintaining competitiveness, organization members regularly react adversely and resist change.

Dispositional resistance, a tendency to reject change, as proposed by Soenen, et al. [32] is negatively related to attitudes toward change. Fugate, et al. [23] propose that these change-related dispositions mirror the degree of self-threat linked with change. Resistance does not always lead to negative consequences; as Salem [30] stated, having no resistance would cause change to occur quickly without fully considering or exploring the implications of a managed change event.

Exploring the change resistance meaning, effects, causes, how to address them, and deal with, connecting with the driving force of change, the following hypothesis is proposed:

H3: Effective stakeholder engagement strategies increase acceptance of PIF projects and decrease resistance to change.

2.4. The Role of Leadership in Change Management

The word “leadership” is defined as the capacity to modify a group of employees’ values, principles, attitudes, and conduct [7]. An exceptionally adept leader can turn into a thought-provocateur-provocative and insightful, as well as inspire and influence the staff of the association and make productive changes to the association. In the absence of effective leadership, organizational change will not be implemented or achieved [22]. The rationale for this is that there appears to be a lack of leaders who inspire and guide the organization's employees in the right direction [33].

Research by Gilley, et al. [34] has investigated the perceived significance of specific leadership skills and attributes required for successful change and innovation. Organizations are increasingly focusing on evaluating and cultivating the change and innovation competencies of their leaders at all levels to enhance change effectiveness. Regarding leadership and management development, the skills needed to effect change should not be a secondary consideration. This step has been demonstrated as one of the enablers to motivate, continually inspire, and encourage workers to transform Mwakisaghu [35].

Hao and Yazdanifard [33] studied transformational and transactional leadership theories and their direct and indirect effects on followers' perceptions of change through leader engagement. Their study of two Danish organizations examined the plans of teams at two different points in time. The research findings indicate that leadership styles and manager involvement are crucial in encouraging such appraisals, thereby facilitating positive processes and outcomes of change. Transformational leadership is a process that changes and approaches targets by influencing principles, standards, and attitudes, thereby educating leaders’ practices and enhancing their capacity to lead change [32]. As noted by Samad [21] transformational leadership has a significant influence on organizational performance.

The role of leading change is highly dependent on the leader. Leaders help people acquire the necessary skills to cope during organizational transitions [36]. Transformational and strategic leaders must be focused on all the processes of developing, executing, and maintaining the acts of change. Change is one of the core competencies that enables organizations to gain a competitive edge over their competitors. Kovach [28] Studies have shown how transformational leadership transcends disciplines and demonstrates the value of transformational leadership, leading to higher achievement outcomes

This is where strategic leadership can be critical and needs to adopt a transformational style [37]. The study emphasized that transformational leadership naturally gravitates toward a change-oriented culture, as it requires considerable effort and determination to achieve meaningful outcomes. Transformational leaders’ stress that the leader implementing a distinctive vision for the organization through strong personalization attributes that change internal organizational cultural norms is how change occurs. According to Bommer, et al. [38] managing change effectively requires a transformational leadership style associated with the business's procedures. Usman [39] stated that individuals must possess several fundamental traits to achieve the desired transformation, which include access to the right resources, a willingness to change, and an intent to change.

The positive influence of transformational leadership in creating higher satisfaction levels between employees has been steadily proven over two decades of research [40]. Recent studies continue to deliver evidence about the strong positive influence of transformational leadership on employees’ job satisfaction, as such leaders motivate followers to set higher standards and develop strategies to achieve them Worthy, et al. [41]. Dupré and Day [42] found that transformational leaders substantially influence employee job satisfaction, resulting in lower turnover intentions. Transformational leaders reduce their followers’ intention to quit; they foster employee loyalty to the organization by inspiring employees to overcome hindrances and remain effective in their work, as supported by Alatawi [22].

Mendy and Harrison [43] found that leadership styles' positive impacts within the context of the changing world of work are supported, so in terms of the transformational Vision 2030, transformational leaders are required within PIF to influence the change and ensure its success, thus, the following hypothesis is proposed:

H4: Transformational leadership at PIF enhances the success of Vision 2030 projects by aligning stakeholders, decreasing resistance to change, and ensuring sustainability.

3. Methodology

3.1. Data Sample and Method

This research employs purposive and stratified random sampling to collect data from two distinct groups of interest: leaders from PIF and citizens of Saudi Arabia, thereby ensuring the collection of relevant, diverse, and credible data. The data collection method will employ a mixed-methods approach, incorporating interviews as a qualitative data collection method, with a primary focus on managers, directors, and change agents in PIF and its subsidiaries. The target sample will comprise a minimum of 8 individuals from various industries. The other data will be collected through surveys, which will serve as quantitative data, focusing on Saudi citizens and residents impacted by PIF initiatives. Stratified random sampling will be employed within this sample to ensure diversity in terms of age, gender, region, and levels of engagement, targeting a total of 211 individuals. The combination of both study approaches yields a robust dataset that strikes a balance between expert opinions of leadership in PIF and the experiences of members of the public.

3.2. Content Analysis

This section represents the results and findings from the qualitative and quantitative data analysis. The first part is the qualitative analysis, which comprises two components: data from interviews with PIF leaders and experts that were aired, and data from interviews conducted specifically for this research.

Qualitative Part 1: Starting with the aired interviews with PIF leaders and experts. First, His Excellency Mr. Yasir Alrumayyan, the governor of the Public Investments Fund (PIF), stated in an interview in 2022 that PIF investments contribute to job creation, the growth of non-oil GDP, the expansion of local content, and the prosperity of the private sector. Additionally, they enhance the quality of life in general and reinforce Saudi Arabia's leading global position across various domains.

Today, thanks to unwavering support from our wise leadership, PIF holds an advanced and influential position among the world's sovereign wealth funds. The PIF program has achieved remarkable milestones, strengthening its position both locally and globally.

Through its Local Content Development Program, PIF aims to increase the local content contribution of the Fund and its subsidiaries to 60% by the end of 2025. This initiative has empowered various promising sectors, including renewable energy, healthcare, digital sectors, and other industries, with a positive economic impact on the local economy and the Saudi people.

PIF will continue to diversify the economy, support local content, and develop innovative future opportunities, thereby contributing to a thriving investment environment in strategic sectors. The Public Investment Fund will continue its journey with a steadfast strategy, further solidifying its position as the preferred investment partner globally, playing a key role in fulfilling Saudi Arabia's economic aspirations.

Additionally, His Excellency Mr. Yasir Alrumayyan, the governor of the Public Investments Fund (PIF), mentioned in an interview aired in 2023, the transformative evolution of the Public Investment Fund (PIF) from development activity, which focuses on providing loans for the economy, to equity investment that enables sustainable national economic development. This transformation began with a thorough diagnostic assessment to understand the fund's current situation, identify inefficiencies, and pinpoint opportunities for improvement. PIF benchmarked itself against other global sovereign wealth funds, including those of Norway, Kuwait, and the UAE, to help refine its strategy. However, this

change met resistance from many stakeholders who are used to the fund's traditional mode of operation." PIF has introduced a strategic asset allocation model to navigate past challenges and make a lasting impact on the new direction, diversifying its investments across six investment pools, including Saudi equities, giga projects, international investments, and infrastructure.

In the context of the digital transformation, H.E Mr. Alrumayyan mentioned that the Public Investment Fund (PIF) investments in artificial intelligence (AI), Robotics, life sciences and the Internet of Things (IoT) are essential to the future and are in line with PIF Digital and Technology Transformation strategy, which supports H2. PIF's commitment to supporting innovation and emerging technologies is illustrated by significant investments, such as Lucid Motors in the electric vehicle market and the acquisition of Savvy Gaming Group in the e-gaming space. The fund established offices in New York, London, and Hong Kong to further its global presence and centralize its ability to manage digital investments worldwide.

The new strategy of PIF. Many private sector leaders feared competition from PIF, believing it would dominate industries rather than support existing businesses. H.E. Mr. Al-Rumayyan directly met with business leaders across Saudi Arabia, including those in the Eastern, Western, and Riyadh regions, and requested specific examples of unfair competition. None was provided, and instead of creating new contracting firms, PIF invested in existing construction companies, such as ACWA Power, helping them scale up instead of replacing them, which supports H3.

Shifting the leadership influence, Mr. Al-Rumayyan credited the bold economic transformation spearheaded by His Royal Highness Crown Prince Mohammed bin Salman, which derives from calculated risk-taking and long-term planning supporting H4. Every investment decision had to be based on data, benchmarks, and case studies, rather than on gut feelings that would bring structure. In line with this philosophy, Al-Rumayyan pursued a decentralized decision-making approach. At PIF, starting with 30–40 employees, he was deeply involved in decision-making. However, as the fund grew to more than 2,000 employees, it established governance structures that enabled executive committees to make decisions before seeking approval from the board. Using the Crown Prince's guidance as a framework, Al-Rumayyan distilled three core tenets: Thinking big — which he said was necessary because Vision 2030 seeks ambitious, large-scale projects, not incremental change; trusting in data — so that they can ensure every decision is supported by clear proof and international benchmarks; and overcoming resistance — which the Crown Prince, he said, achieved through persistence, negotiations and even the willingness to take calculated risks, so he could successfully bring about economic transformation.

Continuing to explore data from the PIF community, several interviews with PIF experts have revealed insights into the PIF strategy and environment.

Muhammad AlShiha, Head of PIF's Automotive and mobility Sector, and Muhammad Calderwood, Head of PIF's Industrials and Mining Sector, stated that PIF's strategy is to enhance and enable many sectors that have today's focus, such as mining and automotive, through direct investments in these sectors and support by its portfolio companies. PIF is working with the private sector to ensure that their engagement and involvement help fill the gaps.

Jerry Todd, Head of PIF's National Development Division, mentioned that PIF has a financial team that focuses on the economic impact of its investments in national development, ensuring that these investments yield real economic and social benefits for citizens. Due to the scale of PIF, they worked programmatically to achieve three main areas. First, the targets set by the board of directors cascade down to the portfolio companies. Secondly, each investment opportunity must be assessed through a committee to analyze the risks and potential economic and social benefits to society. Third, design and implement a strategy to develop the company and enhance engagement with the private sector.

Lamees Al-Haidari, PIF's Head of People Development, stated that PIF has a rich, exciting environment for learning and development, as diverse cultures, projects, and segments are present. PIF aims to attract ambitious individuals who are risk-takers, willing to learn and acquire knowledge, and

help encourage and develop these capabilities, which supports H4. PIF Academy offers top-notch, world-class learning opportunities and invites international experts.

3.3. Summary of Interview Findings

The qualitative interviews with Public Investment Fund (PIF) executives, directors, and professionals across diverse sectors—including construction, real estate, entertainment, information technology, and cybersecurity—revealed key themes related to PIF’s role in advancing Vision 2030. The following table summarizes the findings of interviewees’ perspectives and experiences:

Table 1.
Summary of Interview Findings

Theme	Key Findings from Interviewees	Related Hypothesis
Structured Change Management	Change models (e.g., Kotter, Lewin) are not formally named but are embedded in project governance. However, other models, such as the McKinsey 7S, have been applied. Implementation is top-down, with increasing recognition of the need for structured, phased processes.	H1
Digital Transformation	Digital tools like AI, data platforms are widely used in projects like NEOM and Qiddiya. However, digital maturity varies across subsidiaries, and resistance persists due to skill gaps and culture.	H2
Stakeholder Engagement	Partnerships and forums have improved engagement. Still, resistance exists in culturally conservative sectors. A need for formal feedback loops and early stakeholder involvement was highlighted.	H3
Transformational Leadership	Leadership was identified as a key enabler of change. Visionary direction, data-driven decisions, and decentralization drove alignment and reduced resistance.	H4
Integration of Enablers	Interviewees viewed the four enablers as interdependent. Change is seen as a holistic effort, not a solo one. Alignment between leadership, digital tools, change management, and stakeholder engagement is crucial.	All

3.3. The Quantitative Analysis

3.3.1. Descriptive Statistics

The participants’ composition in this study reveals an illustration across several arenas and segments. Table 1 indicates that most participants were male, accounting for 63.5%, while the remaining 36.5% were female. Similarly, the age distribution of the participants was as follows: 61.6% were between 26 and 35 years old, 24.2% were between 36 and 50 years old, 12.8% were between 18 and 25 years old, and 1.4% were above the age of 50. Moreover, 77.7% of the participants held a bachelor's degree, while 17.5% held a master's degree or higher, and only 4, 7% held a diploma. Furthermore, 62.1% of the participants were from central province, 22.3% were from eastern province, 10% were from western province, 3.3% were from Northern Province, and 2.4% were from southern province. The distribution of participants based on their nationality shows that 100% of Saudi participants.

Table 2.
Participants' Profile.

Gender	<i>f</i>	%
Male	134	63.5
Female	77	36.5
Age Group	<i>f</i>	%
18 – 25	27	12.8
26 – 35	130	61.6
36 – 50	51	24.2
Above 50	3	1.4
Level of Education	<i>f</i>	%
Diploma	10	4.7
Bachelor	164	77.7
Master or higher	37	17.5
Area of Residence	<i>f</i>	%
Northern Province	7	3.3
Eastern Province	47	22.3
Central Province	131	62.1
Western Province	21	10
Southern Province	5	2.4

3.4. Analysis of Results

3.4.1. Reliability and Validity

The measurement model was assessed to examine the reliability and consistency of the constructs used in this study. All indicator loadings exceeded the commonly accepted threshold of 0.70, ranging from 0.853 to 0.899, demonstrating strong convergent validity across all constructs. Each item loaded significantly on its intended latent variable, confirming that the observed variables appropriately represent their respective constructs.

Regarding central tendency and dispersion, the mean values across items ranged between 4.06 and 4.18, reflecting a generally positive perception among participants regarding PIF's application of change enablers under Vision 2030. Standard deviation values were below 1.05, indicating a relatively low degree of response variability and a strong level of agreement among respondents.

Overall, the constructs—structured Change Management, Digital Transformation, Stakeholder Engagement, and Transformational Leadership—and their outcomes exhibited high internal consistency and strong item alignment. These results provide a robust foundation for advancing to the structural model assessment and hypothesis testing in the next phase of analysis.

Table 3.
Measurement Model.

Construct	Item	Loading	Mean	SD
Structured Change Management	CM1	0.853	4.10	1.03
	CM2	0.869	4.09	1.03
	CM3	0.875	4.13	0.95
	CM4	0.878	4.14	0.95
	CM5	0.864	4.09	1.03
Digital Transformation	DT1	0.891	4.06	0.92
	DT2	0.889	4.15	0.89
	DT3	0.882	4.18	0.86
	DT4	0.896	4.14	0.91
	DT5	0.887	4.15	0.89
Stakeholder Engagement	SE1	0.871	4.12	0.91
	SE2	0.878	4.13	0.90
	SE3	0.862	4.11	0.88
	SE4	0.874	4.14	0.92
	SE5	0.879	4.13	0.91
Transformational Leadership	TL1	0.893	4.10	0.87
	TL2	0.898	4.11	0.85
	TL3	0.899	4.14	0.84
	TL4	0.895	4.12	0.86
	TL5	0.894	4.14	0.87
Structured Change Management Outcome	DV1	0.866	4.11	0.93
	DV2	0.861	4.13	0.91
	DV3	0.859	4.12	0.90
	DV4	0.864	4.10	0.92
Digital Transformation Outcome	DV5	0.869	4.15	0.91
	DV6	0.873	4.14	0.93
	DV7	0.878	4.14	0.91
	DV8	0.874	4.16	0.88
Stakeholders Engagement Outcome	DV9	0.881	4.12	0.87
	DV10	0.885	4.11	0.86
	DV11	0.883	4.13	0.89
	DV12	0.879	4.13	0.90
Transformational Leadership Outcome	DV13	0.890	4.14	0.89
	DV14	0.892	4.15	0.88
	DV15	0.887	4.11	0.91
	DV16	0.886	4.12	0.90

The Heterotrait–Monotrait (HTMT) ratio was assessed to examine discriminant validity across the eight latent constructs, including the four independent variables and their corresponding outcome constructs. As shown in Table 4, several HTMT values exceeded the commonly accepted threshold of 0.90, indicating strong inter-construct correlations.

For example, Structured Change and Stakeholder Engagement reached an HTMT value of 1.006, while Digital Transformation and DT Outcome recorded the highest value at 1.024. These elevated correlations suggest that participants perceive these concepts as closely intertwined rather than distinct categories given the integrated nature of Vision 2030 initiatives, such an overlap is expected and theoretically justifiable. In real-world implementation, strategic leadership, digital enablement, stakeholder inclusion, and change management are delivered concurrently, contributing to high interrelatedness in perception.

While these results indicate a challenge for strict discriminant validity, they do not undermine the model's usefulness. Instead, they reflect a holistic understanding of transformation as seen by the respondents, consistent with your research context and methodological expectations. These findings

should be reported transparently while acknowledging the conceptual alignment of constructs in national transformation programs.

Table 4.
Heterotrait–Monotint Ratio of Correlations (HTMT).

Construct	SC	DT	SE	TL	SCM_O	DT_O	SE_O	TL_O
Structured Change (SC)	—	0.987	1.006	0.996	0.909	0.977	0.939	0.938
Digital Transformation (DT)	—	—	0.996	1.019	0.988	1.024	1.002	1.016
Stakeholder Engagement (SE)	—	—	—	0.984	0.886	0.961	0.918	0.923
Transformational Leadership (TL)	—	—	—	—	0.973	1.002	0.992	0.975
SCM Outcome (SCM_O)	—	—	—	—	—	0.988	1.008	0.982
DT Outcome (DT_O)	—	—	—	—	—	—	1.011	1.012
SE Outcome (SE_O)	—	—	—	—	—	—	—	1.004
TL Outcome (TL_O)	—	—	—	—	—	—	—	—

Source: SCM = Structured Change Management, DT = Digital Transformation; SE = Stakeholder Engagement; TL = Transformational Leadership; SCM_O, DT_O, etc. = their corresponding outcome constructs.

The constructs were evaluated using Cronbach's Alpha, rho_A, Composite Reliability (CR), and Average Variance Extracted (AVE) to assess internal consistency and convergent validity. As shown in Table 5, all constructs exceeded the commonly accepted thresholds: Cronbach's Alpha and rho_A values were above 0.95, indicating excellent internal consistency. Composite Reliability values ranged from 0.984 to 0.995, demonstrating that the measurement items reliably reflect their corresponding latent variables.

Moreover, the AVE for all constructs was well above the minimum criterion of 0.50, with values ranging from 0.924 to 0.975. This confirms that the constructs explain a high proportion of variance in their indicators, providing strong evidence of convergent validity. Together, these metrics validate the robustness of the measurement model, confirm that each construct is both statistically reliable and conceptually sound, thus supporting the progression to structural model analysis.

Table 5.
Construct reliability and validity assessment.

Construct	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Structured Change Management	0.981	0.985	0.994	0.970
Digital Transformation	0.952	0.961	0.984	0.924
Stakeholder Engagement	0.984	0.988	0.995	0.975
Transformational Leadership	0.977	0.981	0.992	0.963
SCM Outcome	0.975	0.981	0.991	0.963
DT Outcome	0.949	0.962	0.98	0.925
SE Outcome	0.915	0.936	0.966	0.876
TL Outcome	0.989	0.992	0.996	0.983

3.4.2. Structural Model

Four separate linear regressions were conducted to assess the strength and direction of the relationships between each independent variable and its corresponding outcome. The results indicate that all four hypotheses (H1–H4) are statistically supported, with each independent construct demonstrating a significant and positive effect on its respective dependent variable ($p < 0.001$).

Digital Transformation (H2) emerged as the most influential factor ($\beta = 0.982$, $R^2 = 0.987$), highlighting the critical role of digital tools and platforms in enhancing PIF's project performance under Vision 2030. Transformational Leadership (H4) also demonstrated a powerful impact ($\beta = 0.936$, $R^2 = 0.923$), underscoring the importance of visionary leadership in aligning teams, reducing resistance, and driving successful implementation.

Structured Change Management (H1) and Stakeholder Engagement (H3) were also statistically significant ($\beta = 0.802$ and 0.806 , respectively), with R^2 values above 0.80. These results confirm that

systematic change processes and inclusive stakeholder strategies contribute meaningfully to project success.

Overall, the model shows high explanatory power across all constructs, validating the conceptual framework and supporting the integration of these transformation enablers in national initiatives such as Saudi Vision 2030.

Table 6.
Structural Model Assessment

Hypothesis	Independent Variable	β (Beta)	T-Statistic	P-Value	R ²	Decision
H1	Structured Change	0.802	29.038	0.000	0.801	Supported
H2	Digital Transformation	0.982	127.744	0.000	0.987	Supported
H3	Stakeholder Engagement	0.806	31.508	0.000	0.826	Supported
H4	Transformational Leadership	0.936	49.988	0.000	0.923	Supported

The final Structural Equation Model (SEM) visually illustrates the direct relationships between each independent variable and its corresponding outcome, confirming the hypothesized structure of the research model. The diagram illustrates the substantial and statistically significant paths identified in the regression analysis, where each construct is evaluated based on its designated impact area within the Vision 2030 initiatives.

Structured Change Management substantially influenced its outcome ($\beta = 0.802$), validating the importance of applying systematic change frameworks to enhance stakeholder alignment and adaptability. Digital Transformation exhibited the strongest path coefficient ($\beta = 0.982$), underscoring its crucial role in enhancing project transparency, accessibility, and operational efficiency. Stakeholder Engagement also showed a strong positive effect ($\beta = 0.806$), confirming that inclusive communication and feedback mechanisms contribute meaningfully to public trust and project success.

Lastly, Transformational Leadership had a highly influential relationship with its outcome construct ($\beta = 0.936$), underscoring the impact of visionary leadership in driving organizational culture, innovation, and sustained performance. The diagram affirms the theoretical model and highlights the practical interdependence of these strategic enablers in achieving societal transformation goals under the Public Investment Fund's leadership.

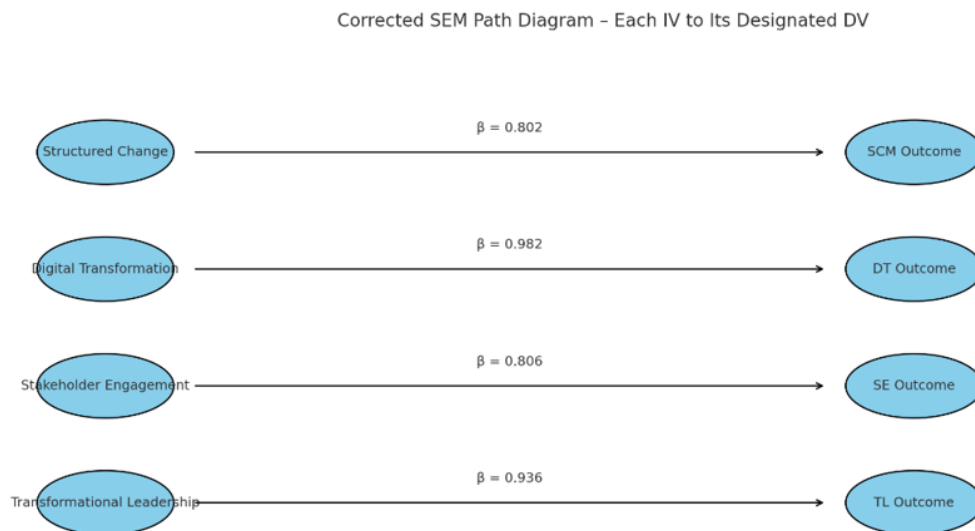


Figure 1.
Path relationship diagram.

3.4.3. Importance–Performance Map Analysis (IPMA)

Table 7 and Figure 2 indicate that the Importance–Performance Map Analysis (IPMA) provides additional insight by combining the relative importance (β values from the structural model) with the perceived performance (mean scores) of each independent construct. This dual perspective helps identify strategic priorities for enhancing transformation outcomes under Vision 2030.

The results show that Digital Transformation holds the highest importance ($\beta = 0.982$) and demonstrates high performance ($M = 4.15$), indicating that it is a key success driver and is currently being executed effectively. Similarly, Transformational Leadership scored very high in importance ($\beta = 0.936$) and performance ($M = 4.14$), reinforcing its critical role in motivating teams, fostering innovation, and sustaining momentum in change initiatives.

Structured Change Management ($\beta = 0.802$, $M = 4.11$) and Stakeholder Engagement ($\beta = 0.806$, $M = 4.10$) also showed significant influence, although they slightly lag behind the top two constructs in performance. This suggests that while they are performing reasonably well, they represent opportunities for improvement and could yield greater impact if further optimized.

Overall, the IPMA highlights Digital Transformation and Transformational Leadership as high-impact and well-executed strategies, pointing to Structured Change and Stakeholder Engagement as areas to watch for sustained long-term success.

Table 7.
IPMA results

Construct	Importance (β)	Performance (Mean)
Structured Change Management	0.802	4.112
Digital Transformation	0.982	4.146
Stakeholder Engagement	0.806	4.098
Transformational Leadership	0.936	4.143

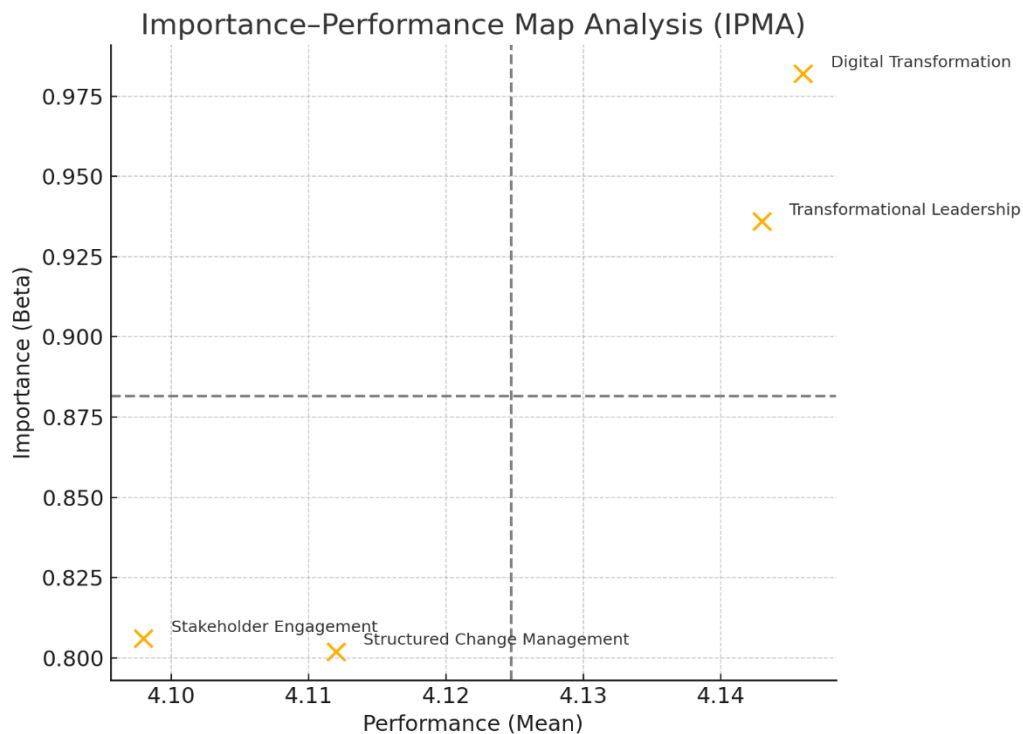


Figure 2.
Importance-performance map.

4. Discussion

This section interprets the findings presented in the results section and connects them with the research objectives, theoretical framework, and existing literature. The study examined how structured change management, digital transformation, stakeholder engagement, and transformational leadership contribute to the success of initiatives led by the Public Investment Fund (PIF) in realizing the “A Vibrant Society” pillar of Saudi Vision 2030. By analyzing survey responses from individuals familiar with PIF’s transformation activities, the research provides practical insights into the effectiveness of each strategic enabler.

Structured Change Management: The results support Hypothesis 1, confirming that structured change management models have a positive influence on transformation outcomes ($\beta = 0.802$, $R^2 = 0.801$). This finding aligns with change theory literature, particularly Lewin’s Three Stages and Kotter’s 8-Step Model, which emphasize the importance of systematically guiding individuals and organizations through change. In the context of Vision 2030, structured approaches help align stakeholders, reduce uncertainty, and ensure a logical progression of project phases. Participants’ positive responses reflect confidence in how PIF implements organized frameworks to manage resistance, risks, and change communication.

Digital Transformation: Hypothesis 2 was strongly supported ($\beta = 0.982$, $R^2 = 0.987$), indicating that digital transformation is the most influential factor in this study. This aligns with the global consensus that digitalization drives efficiency, transparency, and connectivity, especially in public sector reforms. The literature frequently associates digital transformation with enhanced accessibility, data-driven decision-making, and real-time engagement, all of which are evident in PIF’s project ecosystem.

The high β value and superior IPMA position reinforce that digital tools are well implemented and perceived as highly impactful. The strategic use of digital dashboards, platforms, and smart infrastructure enhances the implementation process and fosters stakeholder confidence. This supports Vision 2030’s broader digital ambitions and confirms that digital transformation is both an enabler and a symbol of modernization. **Stakeholder Engagement:** Stakeholder engagement was also supported ($\beta = 0.806$, $R^2 = 0.826$), validating Hypothesis 3. This aligns with theories of participatory governance and public value creation, which emphasize the importance of inclusive communication and feedback mechanisms in achieving public sector success. PIF’s ongoing engagement with residents, businesses, and regulatory stakeholders appears to be a key factor in project acceptance and smoother rollout.

Interestingly, stakeholder engagement had slightly lower performance scores in the IPMA than digital transformation and leadership, suggesting it may benefit from more targeted strategies. Despite its statistical strength, PIF could enhance its efforts by customizing outreach to specific audience segments, improving transparency of decision-making, and institutionalizing two-way feedback loops. As stakeholder trust is a major driver of public program legitimacy, this area warrants continued attention. **Transformational Leadership:** Hypothesis 4 was also confirmed, with a high β value of 0.936 ($R^2 = 0.923$), underscoring the crucial role of leadership in shaping organizational culture and driving performance. This supports extensive literature that links transformational leadership to vision articulation, encouraging innovation, and promoting change resilience. In the context of PIF and Vision 2030, the findings suggest that strong, visionary leadership significantly enhances alignment, execution speed, and team motivation.

The IPMA further highlights this construct as both highly important and well executed. Respondents likely associate PIF leadership with clarity, ambition, and proactive direction—traits emphasized by senior figures such as His Excellency Yasir Al-Rumayyan and shaped by Crown Prince Mohammed bin Salman’s vision. The findings confirm that leadership is not just an internal matter but a visible and influential factor in how PIF delivers on national transformation goals.

Integration of Enablers and Vision 2030 Context: One of the most significant implications of this study is the close interconnection among the four enablers. While each variable was tested independently, the HTMT results showed high correlations, reflecting how respondents view transformation as an integrated rather than siloed effort. This reinforces that change management, leadership, stakeholder engagement, and digital tools function best when aligned under a cohesive strategy.

Given Saudi Arabia's rapid transformation and ambitious national vision, the findings validate that PIF effectively leverages these strategic tools. The strong support for all hypotheses confirms that PIF's internal systems, processes, and leadership culture are aligned with the goals of Vision 2030.

5. Conclusions

This research examined the role of four strategic enablers—structured change management, digital transformation, stakeholder engagement, and transformational leadership—in contributing to the success of PIF-led initiatives under the “A Vibrant Society” pillar of Saudi Vision 2030. Using a quantitative methodology supported by structural equation modeling (SEM), the study validated the measurement model and tested four core hypotheses, each linking an independent construct to its specific outcome. All four hypotheses were statistically supported, confirming the relevance and impact of these enablers in the transformation journey.

Among the findings, digital transformation and transformational leadership emerged as the most influential factors, with high beta coefficients and strong explanatory power. These results highlight the importance of leveraging technology and visionary leadership in accelerating national transformation. Structured change management and stakeholder engagement also demonstrated a significant influence, albeit with slightly lower performance levels, suggesting opportunities for further improvement. The Importance–Performance Map Analysis (IPMA) reinforced these insights by identifying which constructs are high-impact and well-executed, and which could benefit from strategic reinforcement.

The study contributes both theoretically and practically. It validates the integration of change management, leadership, and engagement theories within the context of public sector transformation and applies them meaningfully to the case of PIF and Vision 2030. Practically, it offers decision-makers insights on where to focus their efforts, particularly in enhancing structured change processes and targeted stakeholder strategies. The high inter-construct correlations observed in the HTMT analysis also suggest that these enablers are not viewed in isolation but as part of an interconnected transformation ecosystem.

Although the findings are encouraging, the study has limitations. The data relied on self-reported perceptions, which may be influenced by optimism bias, especially given the national importance of Vision 2030. Additionally, the sample, though sufficient, may not fully represent all key stakeholder groups involved in PIF's projects. The cross-sectional nature of the research also limits its ability to capture changes over time.

Looking ahead, future research can build on this study by incorporating longitudinal data to observe how perceptions evolve as Vision 2030 initiatives progress. Comparative studies with other government-backed transformation projects, such as those led by NEOM, Qiddiya, or Diriyah, would add depth and context. Additionally, qualitative interviews with project leaders, operational staff, and citizens could uncover richer insights into the practical challenges and successes of implementing change on such a large scale.

In conclusion, this research confirms that the Public Investment Fund is a financial center and a capable transformation leader. By strategically applying the right enablers—particularly digital tools, strong leadership, structured change frameworks, and inclusive stakeholder strategies—PIF is actively shaping the future of Saudi society. The findings reinforce the value of integrated, data-driven transformation and provide a solid foundation for both academic inquiry and real-world applications in pursuit of Vision 2030.

6. Recommendations

Based on the study's findings, the following recommendations are proposed for PIF leaders engaged in Vision 2030:

- Institutionalize Structured Change Management Frameworks: The PIF should adopt and steadily apply formal models (e.g., Kotter, ADKAR) across departments to enhance alignment and minimize variation in change outcomes.
- Advance Digital Literacy and Change Culture: PIF must prioritize internal training programs to align employee capabilities with innovative technology, in addition to digital investments.
- Enhance Stakeholder Segmentation and Engagement: PIF should tailor engagement strategies to regional, cultural, and sectoral differences to improve trust and reduce resistance.
- Develop Change Leadership Capacity: Introduce leadership development programs focused on transformational and adaptive competencies to sustain momentum and embed accountability.
- Monitor Impact Using Transparent Metrics: Implement stakeholder-facing dashboards to communicate progress and demonstrate alignment with Vision 2030 goals.
- Expand Qualitative Feedback Mechanisms: Utilize open forums, digital surveys, and cultural liaisons to gather continuous feedback and incorporate diverse perspectives into decision-making.
- Integrate Change Management into Giga-Project DNA: Ensure that change management principles are embedded throughout the initiation, planning, execution, and closeout phases of all significant projects.

These recommendations serve as a roadmap to reinforce PIF's transformative efforts and contribute to building a dynamic, inclusive, and future-ready Saudi society.

7. Future Research

This study aims to explore PIF's role and contribution in achieving the Vibrant Society theme under Vision 2030 by examining the change management model and strategies applied by the PIF, the role and utilization of digital transformation, how PIF overcomes resistance to its projects, and how transformational leadership influences the projects. As mentioned earlier in the limitations, the research has limited reach to senior decision-makers, which makes it challenging to gain deeper insights. Therefore, an earlier arrangement with PIF was made to assist in identifying and arranging interviews with key stakeholders involved in relevant projects. Most initiatives powered by the PIF are in their initial stages, making it quite challenging to evaluate their potential long-term impact. Projects are either new or in progress, which means that achieving societal and economic benefits may take several years. The accurate and precise results of these projects should be measured after completion. Finally, the results, knowledge, and challenges gained through these projects and this era can develop experience rich with lessons learned for future use, for instance, in Vision 2040.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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