A Study on the Role of Leaders in Achieving Sustainable Competitiveness and Sustainability During Change

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Article

A Study on the Role of Leaders in Achieving Sustainable Competitiveness and Sustainability during Change

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Abstract: Effective change management, corporate sustainability, and employee resilience are crucial factors influencing organizational success. This study explores how demographic factors impact these dimensions, specifically focusing on the role of leaders during change, sustainability, sustainable competitiveness, and employee resilience within a diverse workforce. Statistical analyses, including ANOVA and regression, were performed to examine the associations between demographic factors (gender, age, salary range, sector, job position, and total job experience) and the measured scales. The study found significant variations in employee perceptions of sustainable competitiveness based on gender and sector, with males and employees in the education sector reporting higher scores. Age and salary range significantly affected employee resilience, with younger employees and those in lower salary brackets showing higher resilience scores. The findings highlight the importance of considering demographic factors in assessing organizational performance, sustainability, and employee resilience. Gender and sector differences suggest targeted strategies may be necessary to address specific perceptions and experiences. Additionally, younger employees and those with lower salaries demonstrate higher resilience, which could inform organizational support programs. These insights can guide future research and organizational practices aimed at enhancing employee and organizational outcomes.

Keywords: sustainability; role of the leaders; sustainable competitiveness; organizational change; employee resilience.

1. Introduction

Change is inevitable and it is synonymous with life and growth. It is a must for businesses and organizations all over the world to go through the change process if they wish to grow and thrive. In the past several decades, change has played an important role in organizational development. Change management was first introduced by Lewin's (1947). Lewin's model of change is a framework for understanding and managing change in organizations [1]. According to Hussain *et al.*, [1], "The model has been categorized into loops of leadership, management and organization". Arifin [2], explained that "Change is an adaptation to adjust to environmental conditions and improve organizational performance". Organizations that do not enforce change seem to diminish in a short period of time. According to Rajan and Ganesan [3], "The successful implementation of a change is a herculean task in any organization irrespective of its magnitude, size and complexity".

The ultimate goal of a change process is its sustainability. As described by De Matos and Clegg [4], "The need for sustainable development is the major organizational change that contemporary businesses face". Organizational change and sustainability are two terms that go hand in hand. According to Sroufe [5], "During a time of change, the organizational system has a transitional period before reaching a more sustainability-oriented state (MSOM)". Change in every aspect of life comes with challenges. One major challenge that organizational change is associated with is sustainability; according to Pardo de Val and Martinez Fuentes [6], "change starts with the perception of its need, so a wrong initial perception is the first barrier to change". Change and sustainability has been a

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growing trend among Saudi organizations that have aligned their vision with the Saudi Vision of 2030. The phenomenon of change and sustainability in Saudi Arabia's corporate world has been on the rise for some years. The Saudi Vision of 2030 aims toward economic and organizational changes especially when it comes to social, economic, and environmental improvements. "Sustainability has been at the heart of Vision 2030 since its inception, and it inspires others around the world to share in building a sustainable tomorrow" [7].

This study builds on prior research on the role of leader during change on sustainability and offer a mediator/moderator model [8], where sustainable competitiveness mediates the relationship between the role of leader in change and sustainability. And employee resilience acts as a moderator between the relationship of the role of leaders in change and sustainability.

The purpose of this study is to establish a level of understanding among leaders, employees and human resource professionals concerning change and sustainability in public and private sectors that went through organizational change in the Kingdom of Saudi Arabia. This study aims to help HR professionals also to achieve sustainability through assessing sustainable competitiveness and measuring employee resilience during change.

Based on the review of the existing literature on change and sustainability. Several scholars have explored these topics and their connection in organizations, schools, and hospitals around the world. Abbas and Asghar [9], stated that "role of a leadership/leader is very important while managing organizations or addressing the issue of organizational change".

Nevertheless, it still appears that there is a lack of empirical research on these topics with regards to HR practices in Saudi Arabia in the present context, as Saudi Arabia itself is in transition stage, several governmental sectors have been going through many changes to align their vision with the Saudi Vision of 2030. According to Mahdi and Nassar [10], "it is commonly understood that most organizations, regardless of sector, should acknowledge that gaining competitive advantages is the most difficult issue facing businesses in the twenty-first century".

Although many scholars have explored the link between leadership and sustainability, [11-14], there is still much to learn about the role leaders play during change in achieving sustainability in the Saudi context. From the literature review, research linking the role of leaders in change process on sustainability in the context of Saudi Arabia is scarce [15]. Therefore, the proposed research aims to fill the gaps in research regarding the relationships of the variables of the study.

2. Literature Review

2.1. Role of Leader in Change Process (ROLC)

Leaders play a vital role in driving sustainability change by creating a shared vision and empowering employees to get involved in the change process. The success of implementing organizational change is believed to be dependent on the actions of the leader during the change process [16]. Yue *et al.,* [17], suggested that "Organizational changes have increased pressure on organizational leaders, who play an important role in affecting organizational change implementation". Mehta *et al.,* [18], noted that "Since the rate of change today is greater than any time in history, it has become increasingly important for organizations to manage and handle the change process to remain relevant and be sustainable". Executing change in an organization is an effective approach for a business's sustainability. According to Abbas and Asghar [9] "Organizational changes provide different significant benefits e.g., it improves competitiveness, improves financial performance, enhances employees and customer satisfaction and most important is that it leads organization towards continuous improvement and sustainability". Drawing on the theory of change [19], it's a leader's responsibility to articulate the desired long-term goals and outcomes of the initiative. The role of the leader in the change process is essential and could lead to either success or failure. Bateh *et al.,* [20], stated that "leaders usually direct organizational change, so that they can inspire sustainability changes in their organizations". It is anticipated that the leader possesses many skills that will help him/her in leading the change process effectively. As explained by Afandi and

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Ansari [13], "The process of change demands an effective and highly skilled leadership that is able to perceive the most desirable feature and address the issues in the most appropriate manner".

Mehta *et al.,* [18], stated that role of leaders in change contains encouraging employees to take risks, having easy and clear connection between leaders and employees, and among employees themselves, making sure that all employees are aware of change and have the proper information to assess their concerns, and finally have common goals among leaders and employees and achieving accomplishments. Leaders play many roles in the change process such as: vision setting, communication, motivation, and monitoring and evaluating employees during and after change. Vision setting requires the leader to clearly articulate the vision for change among employees and assess any attitudes towards this change. According to Bateh *et al.,* [20], "one primary responsibility of leaders is to ensure dissemination of an organizational vision that includes sustainability principles, followed by structures and processes that will sustain long-term success". Effective leaders are ones who take on an inspirational role and have a clear vision and values as opposed to economic transactions between themselves and their employees [11]. Penava and Šehić [21], reinforced this belief by stating that "Leadership behavior that is supportive and facilitative has a stronger link with the success of change than the so-called 'leader-centric' approach, which implies leading a change through personal involvement, persuasion, and influence". Jung's [22], study found that empowering leadership has a positive effect on employees' commitment to organizational change. This indicates that behaviors such as leading by example, participative decision-making, coaching, informing, and showing concern by leaders significantly enhance employees' commitment to change initiatives.

Communicating the change effectively with employees is one of the main roles a leader plays in the change. By addressing concerns or resistance, leaders need to provide regular updates regarding the change process and celebrate success along the way. According to Kurt Lewin's (1947) change model, three stages of action should be taken if change should be forgone. The three stages of the change model are: *unfreezing, change, and freezing*. The first stage of the change model is *unfreezing* where it involves the process of creating awareness of the need for change [23]. A leader's communication skills in an organization reflect his or her attempts to provide necessary information to employees and ease the flow of information from the top downwards [24]. According to Yue *et al.,* [17], "Effective leadership cannot function in its fullest capacity without communication. The adoption of transparent internal communication demonstrates organizational leaders' genuine interest in maintaining or enhancing relationships with employees".

Leader can also relay on motivating their employees towards accepting the change, Farahnak *et al.,* [25], described that "leaders may use inspirational motivation to depict a positive vision for how the organization and the employees will be more effective as a result of implementing the change". According to Banmairuroy *et al.,* [26], "It was believed that the knowledge-oriented leader could help search for open innovation and eventually lead to sustainable competitive advantage". Planning and Motivation can be one of the leader's roles during a change process and it's part of Lewin's change model, the second stage is *change*. Hussain *et al.,* [1], stated that leaders use multiple methods of motivation during this stage to assess their employees during the change.

The third stage of Lewin's model is *refreezing*. During this stage, monitoring and evaluation are a part of a leader's role in sustaining the change. According to Shirey [27], "during this stage demands stabilizing the change so that it becomes embedded into existing systems".

According to Garavan *et al.,* [28], "Human capital theory characterizes leaders as human resources. It is assumed that investment in leadership development will result in a payoff to the organization provided there is a focus on developing firm specific leadership skills". Leaders need to act as change agents when it is necessary by modeling a desired behavior that requires taking actions to push forward the change and by calculating risks. As explained by Afandi and Ansari [13], "The leader acts as a change agent because a successful leader creates an environment that persuades employees towards a common goal and motivates them through effective communication, and plan employees' actions, etc.".

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2.2. Sustainability

Sustainability does not mean longevity; it addresses how particular initiatives can be developed without compromising the development of others in the surrounding environment at any time [29]. Sustainability often requires significant changes to an organization's structure, culture, and operations. According to the World Commission on Environment and Development (1978), sustainable development is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [30]. Zhang *et al.*, [31], stated that "the concept of sustainability has become essential to help firms achieve their performance targets. High sustainability helps firms to improve different processes which make them outperform competitors in the long run".

When attempting to implement change in an organization, it is important to consider the potential environmental, social, and economic impacts of sustainability of the change process. To incorporate sustainability into organizational change is to adopt the 'triple bottom line' approach. According to Sridhar and Jones [32], "The main function of the TBL approach is to make corporations aware of the environmental and social values they add or destroy in the world, in addition to the economic value they add". Sustainability involves finding a balance between economic, social, and environmental factors to ensure that the organizational goals thrive. According to Karman and Savaneviciene [33], "Sustainability practices help organisations to develop opportunities and manage economic, environmental, and social risks, creating value over the long term". The major goal of sustainability is to meet the needs of the present without compromising the ability of future goals. As suggested by Harrington [34], "Pursuit of sustainability or sustainable development implies that the goal is to maintain or improve beneficial conditions (to sustain them), particularly with improved capacity to extend desirable conditions over the long term".

The role of leaders in change process and its relationship with sustainability has been discussed in many literatures in the western world [9-35-36-14], whereas in Saudi Arabia, there is no study on the relationship between the role leaders play in change processes and sustainability in the Saudi context, specifically in the semi-government sector also. Therefore, considering the role of the leader in change process and its impact on sustainability, the following hypotheses are proposed:

H1: *ROLC is positively associated with sustainability.*

H2: *ROLC is positively associated with sustainable competitiveness.*

2.3. The Mediating Role of Sustainable Competitiveness in the Relationship between ROLC and Sustainability

Competitiveness was defined by Porter (1990) as "the ability of the country to create innovations in order to achieve advantages over other nations" [38]. On a broad sense, competitiveness is understood to be related to firms and products. While other researchers view competitiveness as the overall performance of different sectors within one specific region or country [39]. Sustainable competitive advantage was first introduced by Coyne in 1986. According to Coyne [40], he interprets sustainable competitiveness as "a set of assets, characteristics, or capabilities that allow an organization to meet its goals better than its competitors". Sustainable competitiveness at the organizational level is defined as "an organisation' potentialities to produce the right products and services of the right quality at the right price and time" [39]. The World Economic Forum (2015), extended the definition of sustainable competitiveness as "the set of institutions, policies, and factors that make a nation productive over the longer term while ensuring social and environmental sustainability." [41]. Competitiveness in this context refers to "the level of local (national or regional) productivity rather than market-share or cost competitiveness which focus on cost-efficiency or the ability of nations to compete in the international market".

The International Institute of Management Development (IMD) have settled on an academic definition of competitiveness as "Competitiveness of Nations is a field of Economic theory, which analyses the fact and policies that shape the ability of a nation to create and maintain an environment

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that sustains more value creation for its enterprises and more prosperity for its people" [42]. Scholars and institutes have worked on many definitions of sustainable competitiveness depending on the situation where the concept is used. The term sustainable competitiveness is co-related to sustainable development binding three key elements which are -economic, environmental, and social. Balkyte and Tvaronavičiene [39], noted that "economic dynamism and social progress, sustainability and competitiveness go hand-in-hand".

Karman and Savaneviciene [33], pointed out that "organisations need to develop in a sustainable way to realise their potential and gain sustainable competitiveness". According to Doyle and Perez-Alaniz [41], "the environmental and social elements of sustainable development are often studied entirely separately in conjunction with economic growth – despite the core message that sustainability of the social and the environmental are deeply embedded in each other". Popescu *et al.,* [43], noted that "In a global and multifunctional economy, measuring the sustainable competitiveness represents a challenge for scholars and practitioners in order to assess sustainable development in all its dimensions—economic, social, and human wellbeing". Many western scholars have explored the topic of sustainable competitiveness within their western context [44-41-33-31]. Despotovi *et al.,* [38], explored the topic of sustainable competitiveness and its relation to change in 34 European countries. While Wysokinska [44], specified that in Eastern Europe it is "observed there is a strong correlation between the sustainable competitiveness of the economy and the growing productivity of its different sectors on the global market". Sustainable competitiveness as a mediation between the role of the leader during change and sustainability in a theoretical model was not explored in the Saudi context, making it a major gap to be tested in this study; therefore, the following hypothesis is presented:

H3: *Sustainable competitiveness mediates the relationship between ROLC and sustainability.*

2.4. Employee Resilience as a Moderator between ROLC and Sustainability

The Employee Resilience Research group defines employee resilience as: "an ability to thrive in a changing environment, which is facilitated by organizational initiatives. This means that organizations play a key role in how well their employees are able to adjust and perform under pressure." [45]. Previous literature offered many definitions of employee resilience, most common is Bonanno's [46], perspective where resilience is viewed as the stability of an individual when faced with any life changing circumstances.

Research shows that resilient employees tend to adapt easily with changing work environments and organizations are more capable of achieving sustainability through training and developing employees to be more resilient towards change [47-51]. Lu *et al.,* [51], stated that certain human resource practices tend to direct employees towards sustainable competitiveness through training employees in decision-making, equality and ethical sustainable behaviors and improving employee's well-being.

Aguiar-Quintana and colleagues found that resilient employees are more capable of dealing with negativity than less resilient employees [52]. While Souza and colleagues stated that "resilience was the motor to enhance the capability of sustainable initiatives". [48]. Liang and Cao [50], stated that employee resilience has a significant positive impact on organizational change, suggesting that resilient employees contribute to the overall resilience of the organization. Their findings suggest that fostering employee resilience is crucial for enhancing organizations going through change, particularly through promoting problem-focused coping strategies and ensuring strong managerial resilience to support employees. According to Alibašić, [49], "Organizations use a sustainability and resilience plan to further good governance and improve the operational efficiency."

H4: *Employee resilience moderates the relationship between ROLC and sustainability.*

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Based on the above discussion, Figure 1 represents the study's model:

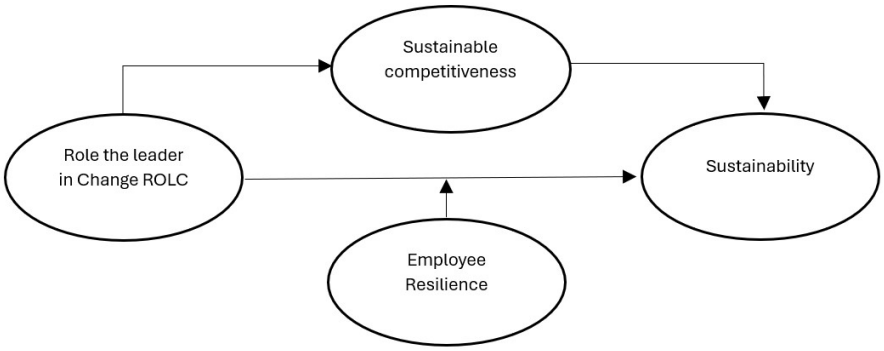

Figure 1. Proposed Model.

3. Methodology

3.1. Study Design and Sample

By utilizing a proper philosophical research approach, researchers can execute a methodology that explicates the research problem [53]. This research is designed to structure a plan that offers a clear idea on the method and procedures being used in the study; it contains the process of collecting data, testing, and analyzing the data to explain the relationships of the hypotheses and answer the research question. A research design consists of the chosen research method, samples choice, the process of collecting data, processing, and analyzing the data, and finally delivering results [54].

The targeted population consists of employees from several public and private sectors that went through change in Saudi Arabia. The sample is one of probability random sampling, where every employee has an equal opportunity of being included in the study [55]. Gender, age, education, and years in position will act as control variables.

This study used a close ended questionnaire for collecting the primary data. The sample size is a minimum of 340, consisting of both male and female employees in different positions and backgrounds.

The questionnaire was translated to Arabic using forward translation by a bilingual Saudi Arabian native. It was then translated back to English using backward translation by means of the method of Brislin's [56]. The backward translation was conducted by a bilingual English linguistics professor from Saudi Arabia who did not have access to the original English version of the questionnaire to exclude any error in meaning. Data was analyzed using SPSS, version 22 and Mplus 8.

3.2. Measures

Role of the leader in change was measured using *The Change Leadership Competency Questionnaire* developed by Gilley [57]. This scale has five domains (visionary, inspirer, supporter, problem solver, and change manager). Only the last domain, change manager, was taken from this scale to test the role of the leader in change. The domain "change manager" has 21 items. The questionnaire is a 4-points Likert scale ranging from (*Rarely) to (Always*).

Sustainability was measured using *The Corporate Sustainability Development Scale* developed by Bansal [58], Chan [59], and Sharma and Vredenburg [60]. This scale has three domains (social development, economic development, and environmental development), the first two domains have six items, while the third had 10 items. A 7-point Likert-type scale, ranging from (*To a small extent)* to (*To a larger extent*) was used for this scale.

Sustainable competitiveness was measured using *The Sustainable Competitive advantage scale* developed by Hung *et al.,* [61], Sigalas *et al.,* [62], and, Sigalas and Papadakis [63]. This scale has three domains (organizational performance, firm competitiveness, and organizational sustainability &

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competitive advantage), the first domain has 6 items, the second has 4 items and the third has only 2 items. A 5-point Likert-type scale was employed from (*Strongly Disagree*) to (*Strongly Agree*).

Employee Resilience was measured using *The Employee Resilience Scale (EmpRes)* developed by Näswall *et al.*, [45]. This scale has 9 items, and using 7-point Likert-type scale, ranging from (*Never*) to (*Almost always*).

3.2. Data Analysis

An exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) will be performed to verify the unidimensionality, validity, and reliability of the model constructs. SPSS version 22 will be used to conduct the EFA on the measures using the maximum likelihood factoring and promax oblique rotation method. MPlus 8 will be used to perform CFA, common method bias (CMB), measurement invariance, and structural equation modeling (SEM).

4. Results:

The study sample consisted of 202 males (57.7%) and 148 females (42.3%). Age distribution was as follows: 94 participants (26.9%) were under 30 years old, 129 participants (36.9%) were aged 30-35, 105 participants (30.0%) were aged 36-40, and 22 participants (6.3%) were over 40 years old. In terms of salary range, 82 participants (23.4%) earned between 5000 and 10000, 175 participants (50.0%) earned between 10000 and 15000, 70 participants (20.0%) earned between 15000 and 20000, and 23 participants (6.6%) earned over 20000. Sector-wise, 46 participants (13.1%) were in education, 61 participants (17.4%) were in finance, 93 participants (26.6%) were in health, 56 participants (16.0%) were in operational roles, and 94 participants (26.9%) were in other sectors. Regarding job position, 68 participants (19.4%) were in administration, 34 participants (9.7%) were in operations, 4 participants (1.1%) were executives, 45 participants (12.9%) were managers, and 199 participants (56.9%) held other positions. Total job experience was categorized as follows: 60 participants (17.1%) had less than 5 years of experience, 172 participants (49.1%) had 5-10 years, 95 participants (27.1%) had 10-15 years, and 23 participants (6.6%) had over 15 years (Table 1).

Table 1. Demographic factors of the participants (N = 340).

		Count	Column N %
Gender	Male	202	57.7%
	Female	148	42.3%
Age	< 30 years	94	26.9%
	30-35	129	36.9%
	36-40	105	30.0%
	> 40 years	22	6.3%
Salary Range	5000-10000	82	23.4%
	10,000-15,000	175	50.0%
	15,000-20,000	70	20.0%
	20,000+	23	6.6%
Sector	Education	46	13.1%
	Financial	61	17.4%
	Health	93	26.6%
	Operational	56	16.0%
	Other	94	26.9%
Job Position	Administration	68	19.4%
	Operation	34	9.7%
	Executive	4	1.1%
	Manager	45	12.9%
	Other	199	56.9%
Total Job Experience	< 5 years	60	17.1%

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5-10 years	172	49.1%
10-15 years	95	27.1%
> 15 years	23	6.6%

The results for the different scales are as follows: The "Change Manager" domain from The Change Leadership Competency Questionnaire developed by Gilley [57], had a mean score of 59.76 with a standard deviation of 3.81, ranging from 49.00 to 69.00. For The Corporate Sustainability Development Scale, the mean score for social development was 20.35 (SD = 3.00, range 12.00-27.00), for economic development was 19.90 (SD = 3.49, range 10.00-29.00), and for environmental development was 30.16 (SD = 4.71, range 16.00-46.00). In The Sustainable Competitive Advantage Scale, organizational performance had a mean score of 23.02 (SD = 3.12, range 11.00-29.00), firm competitiveness had a mean score of 15.37 (SD = 2.24, range 8.00-20.00), and organizational sustainability & competitive advantage had a mean score of 7.66 (SD = 1.41, range 2.00-10.00), with a total mean score of 46.05 (SD = 4.46, range 27.00-56.00). The Employee Resilience Scale (EmpRes) had a mean score of 39.56 (SD = 4.81), with scores ranging from 26.00 to 51.00 (Table 2).

Table 2. The results of different scales of change manger, the corporate sustainability development scale, the sustainable competitive advantage scale, and the EmpRes.

		Mean	Standard Deviation	Minimum	Maximum
The Change Leadership Competency Questionnaire developed by Gilley (2005) "Change manger"		59.76	3.81	49.00	69.00
The Corporate Sustainability Development Scale	Social development	20.35	3.00	12.00	27.00
	Economic development	19.90	3.49	10.00	29.00
	Environmental development	30.16	4.71	16.00	46.00
The Sustainable Competitive advantage scale	Organizational performance	23.02	3.12	11.00	29.00
	Firm competitiveness	15.37	2.24	8.00	20.00
	Organizational sustainability & competitive advantage	7.66	1.41	2.00	10.00
	Total	46.05	4.46	27.00	56.00
The Employee Resilience Scale (EmpRes)		39.56	4.81	26.00	51.00

The mean scores for the "Change Manager" domain from The Change Leadership Competency Questionnaire showed slight variations across demographic factors. For gender, males scored a mean of 59.97 (SD = 3.68) and females scored 59.49 (SD = 3.96), with a p-value of 0.245 indicating no significant difference. Age groups had mean scores ranging from 59.52 for those under 30 years to 60.05 for those over 40 years, with a p-value of 0.843 showing no significant variation. Salary ranges had mean scores from 58.83 for those earning 20,000+ to 60.02 for those earning 5000-10000, with a p-value of 0.552. By sector, mean scores ranged from 58.69 in finance to 60.39 in operational roles, with a p-value of 0.062. Job positions showed mean scores from 58.75 for executives to 59.93 for managers and those in other positions, with a p-value of 0.791. Total job experience had mean scores ranging from 59.32 for those with less than 5 years to 59.91 for those with over 15 years, with a p-value of 0.800, indicating no significant differences across experience levels (Table 3).

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Table 3. The Association Between Change Manger Scale and Demographic Factors.

		The Change Leadership Competency Questionnaire "Change manger"		
		Mean	Standard Deviation	P-Value
Gender	Male	59.97	3.68	0.245
	Female	59.49	3.96	
Age	< 30 years	59.52	4.07	0.843
	30-35	59.95	3.72	
	36-40	59.70	3.75	
	> 40 years	60.05	3.57	
Salary Range	5000-10000	60.02	3.87	0.552
	10,000-15,000	59.85	3.78	
	15,000-20,000	59.54	3.59	
	20,000+	58.83	4.47	
Sector	Education	60.35	3.76	0.062
	Financial	58.69	3.44	
	Health	60.12	4.01	
	Operational	60.39	3.75	
	Other	59.45	3.78	
Job Position	Administration	59.35	3.54	0.791
	Operation	59.50	3.78	
	Executive	58.75	4.11	
	Manager	59.93	3.91	
	Other	59.93	3.89	
Total Job Experience	< 5 years	59.32	3.82	0.800
	5-10 years	59.87	3.77	
	10-15 years	59.82	3.96	
	> 15 years	59.91	3.54	

The analysis of the Corporate Sustainability Development Scale revealed that economic development scores significantly varied by job position, with executives scoring notably higher (mean = 21.25) compared to other positions (mean ranging from 19.41 to 20.72, p-value = 0.032). Gender, age, salary range, sector, and total job experience did not show significant differences across the social, economic, or environmental development dimensions, with p-values all exceeding 0.05 (Table 4).

Table 4. The Association Between the Corporate Sustainability Development Scale and Demographic Factors.

		The Corporate Sustainability Development Scale					
		Social Development		Economic Development		Environmental Development	
		Mean	SD	Mean	SD	Mean	SD
Gender	Male	20.38	3.19	19.66	3.47	30.01	4.77
	Female	20.30	2.73	20.23	3.51	30.36	4.63
	P-Value	0.813		0.134		0.487	
Age	< 30 years	20.12	3.00	19.63	3.45	29.89	5.27
	30-35	20.23	2.94	19.74	3.67	30.36	4.55
	36-40	20.45	3.02	20.30	3.33	30.09	4.63
	> 40 years	21.55	3.19	20.09	3.38	30.50	3.47
	P-Value	0.225		0.513		0.882	

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Salary Range	5000-10000	20.29	3.08	19.79	3.58	29.44	5.17
	10,000-15,000	20.38	2.90	19.65	3.48	30.06	4.70
	15,000-20,000	20.03	3.11	20.80	3.56	30.99	4.59
	20,000+	21.26	3.21	19.48	2.71	30.96	2.74
	P-Value	0.398		0.114		0.186	
Sector	Education	20.52	2.72	19.83	3.12	30.63	3.85
	Financial	19.98	2.72	20.16	3.34	31.15	4.17
	Health	20.56	2.96	19.94	3.86	29.72	4.68
	Operational	20.48	3.09	19.79	3.54	30.14	5.20
	Other	20.21	3.31	19.81	3.40	29.73	5.09
	P-Value	0.772		0.974		0.317	
Job Position	Administration	20.91	2.70	20.72	3.25	30.99	4.68
	Operation	20.24	3.15	20.00	3.85	30.38	3.95
	Executive	19.50	1.00	21.25	3.30	34.00	2.45
	Manager	20.60	3.07	20.67	3.25	30.33	5.13
	Other	20.14	3.08	19.41	3.50	29.72	4.73
	P-Value	0.397		0.032*		0.158	
Total Job Experience	< 5 years	20.22	2.80	19.73	3.34	29.72	5.50
	5-10 years	20.13	3.03	19.74	3.54	30.12	4.65
	10-15 years	20.57	3.06	20.39	3.52	30.35	4.61
	> 15 years	21.43	2.95	19.57	3.44	30.87	3.24
	P-Value	0.207		0.462		0.750	

The Sustainable Competitive Advantage Scale showed significant differences based on gender and sector. Males scored higher in organizational performance (mean = 23.33) compared to females (mean = 22.61, p-value = 0.033) and in total score (mean = 46.69 vs. 45.18, p-value = 0.002). Age groups did not show significant differences in organizational performance, but those over 40 years scored higher in firm competitiveness (mean = 15.41) compared to younger groups (p-value = 0.023). In terms of sector, significant differences were noted in organizational performance, with the education sector scoring highest (mean = 23.54, p-value = 0.002) and operational sector scoring lowest (mean = 21.86, p-value = 0.013). Job position significantly impacted organizational performance, with executives scoring the lowest (mean = 20.00) and those in other positions scoring the highest (mean = 23.51, p-value = 0.001). Salary range and total job experience did not show significant differences in the scales (Table 5).

Table 5. The Association Between the Corporate Sustainability Development Scale and Demographic Factors.

		The Corporate Sustainability Development Scale					
		Organizational Performance		Firm Competitiveness		Organizational Sustainability & Competitive Advantage	
		Mean	SD	Mean	SD	Mean	SD
Gender	Male	23.33	2.79	15.61	2.02	7.75	1.42
	Female	22.61	3.49	15.05	2.48	7.53	1.40
	P-Value	0.033*		0.020*		0.141	
Age	< 30 years	22.89	3.12	15.74	2.00	7.79	1.30
	30-35	23.05	2.97	15.53	2.23	7.53	1.47
	36-40	22.88	3.45	14.83	2.48	7.64	1.47
	> 40 years	24.09	2.04	15.41	1.59	7.95	1.21
	P-Value	0.395		0.023*		0.412	
Salary Range	5000-10000	23.12	3.03	15.80	2.09	7.88	1.24

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	10,000-15,000	23.34	3.05	15.23	2.34	7.57	1.50
	15,000-20,000	21.93	3.41	15.26	2.22	7.56	1.47
	20,000+	23.57	2.33	15.22	1.95	7.83	1.07
	P-Value	0.010*		0.260		0.345	
Sector	Education	23.54	2.38	15.00	2.09	8.07	1.16
	Financial	22.31	3.57	14.95	2.42	7.52	1.67
	Health	23.58	2.49	15.86	2.05	7.62	1.39
	Operational	21.86	3.81	14.84	2.67	7.52	1.45
	Other	23.37	3.02	15.66	1.98	7.66	1.33
	P-Value	0.002*		0.013*		0.291	
Job Position	Administration	22.19	3.68	15.00	2.55	7.47	1.58
	Operation	21.85	3.77	14.88	2.38	7.71	1.36
	Executive	20.00	4.83	14.75	.96	8.25	1.71
	Manager	23.29	2.97	15.33	2.14	7.58	1.42
	Other	23.51	2.64	15.60	2.12	7.72	1.36
	P-Value	0.001*		0.203		0.656	
Total Job Experience	< 5 years	22.72	3.89	15.28	2.33	7.73	1.39
	5-10 years	22.85	2.86	15.52	2.23	7.52	1.40
	10-15 years	23.40	3.02	15.19	2.29	7.92	1.42
	> 15 years	23.52	3.15	15.26	1.84	7.43	1.44
	P-Value	0.385		0.682		0.123	

The Employee Resilience Scale (EmpRes) revealed significant variations based on age, salary range, sector, and total job experience. Younger employees under 30 years had higher resilience scores (mean = 39.73) compared to those over 40 years (mean = 35.68, p-value = 0.001). Employees in the lower salary range (5000-10000) reported higher resilience (mean = 40.76) compared to those in higher salary brackets (mean = 35.52 for 20,000+). In the sector analysis, those in education had the highest resilience (mean = 40.50, p-value = 0.039). Additionally, employees with less than 5 years of experience had higher resilience (mean = 40.00) compared to those with more than 15 years (mean = 36.48, p-value = 0.016). Gender, job position, and most salary ranges did not show significant differences (Table 6).

Table 6. The Association Between the Employee Resilience Scale (EmpRes) and Demographic Factors.

		The Employee Resilience Scale (EmpRes)		
		Mean	Standard Deviation	P-Value
Gender	Male	39.84	5.12	0.197
	Female	39.17	4.34	
Age	< 30 years	39.73	4.67	0.001*
	30-35	40.11	4.53	
	36-40	39.53	4.85	
	> 40 years	35.68	5.38	
Salary Range	5000-10000	40.76	4.52	0.000*
	10,000-15,000	39.62	4.75	
	15,000-20,000	39.31	4.54	
	20,000+	35.52	5.14	
Sector	Education	40.50	5.20	0.039*
	Financial	38.49	4.19	
	Health	38.90	4.89	
	Operational	39.46	5.16	
	Other	40.49	4.52	

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Job Position	Administration	39.28	4.77	0.456
	Operation	38.82	4.83	
	Executive	37.00	6.16	
	Manager	39.13	5.25	
	Other	39.92	4.70	
Total Job Experience	< 5 years	40.00	4.58	0.016*
	5-10 years	39.70	4.57	
	10-15 years	39.77	4.97	
	> 15 years	36.48	5.63	

In table 7, the factor loading of the different variables of our study was presented and considered sufficiently high and statistically significant while composite reliability (CR) and average variance extracted (AVE) exceeded the recommended values of 0.70 and 0.50 respectively [64]. The results showed the validity of the construct is confirmed.

Table 7. Confirmatory Factor Analysis.

Construct	Items	Factor Loading	CR	AVE
The Change	ROLC1	0.812	0.879	0.798
Leadership	ROLC2	0.782		
Competency	ROLC3	0.982		
	ROLC4	0.912		
	ROLC5	0.875		
	ROLC6	0.789		
	ROCL7	0.745		
	ROCL8	0.910		
	ROCL9	0.819		
	ROCL10	0.785		
	ROCL11	0.915		
	ROCL12	0.879		
	ROCL13	0.784		
	ROCL14	0.874		
	ROCL15	0.758		
	ROCL16	0.798		
	ROCL17	0.805		
	ROCL18	0.982		
	ROCL19	0.823		
	ROCL20	0.827		
	ROCL21	0.839		
The Corporate	CSDS1	0.847	0.879	0.821
Sustainability	CSDS2	0.921		
Development Scale	CSDS3	0.789		
	CSDS4	0.795		
	CSDS5	0.821		
	CSDS6	0.935		
	CSDS7	0.898		
	CSDS8	0.873		
	CSDS9	0.789		
	CSDS10	0.981		
	CSDS11	0.752		
	CSDS12	0.798		
	CSDS13	0.854		
	CSDS14	0.923		

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	CSDS15	0.895		
	CSDS16	0.789		
	CSDS17	0.821		
	CSDS18	0.893		
	CSDS19	0.974		
	CSDS20	0.895		
	CSDS21	0.874		
	CSDS22	0.785		
The Sustainable Competitive Advantage scale	SCAS1	0.874	0.825	0.723
	SCAS2	0.758		
	SCAS3	0.756		
	SCAS4	0.832		
	SCAS5	0.987		
	SCAS6	0.923		
	SCAS7	0.758		
	SCAS8	0.810		
	SCAS9	0.921		
	SCAS10	0.898		
	SCAS11	0.874		
	SCAS12	0.845		
The Employee Resilience Scale (EmpRes)	EmpRes1	0.932	0.895	0.798
	EmpRes2	0.895		
	EmpRes3	0.874		
	EmpRes4	0.735		
	EmpRes5	0.982		
	EmpRes6	0.875		
	EmpRes7	0.758		
	EmpRes8	0.825		
	EmpRes9	0.932		

Table 8 shows the results of the effects of the tested structural model. The results indicate that ROLC has a positive and significant effect on sustainability (0.608, $p < 0.00$). Hence, H1 is supported. Furthermore, the results revealed that there is a positive and significant relationship between ROLC and the sustainable competitiveness (0.108; $p < 0.00$). Thus, H2 is supported. Figure 2 depicts the results of the proposed structural model test.

Table 8. Structural Model Results.

Relationships	Standardized Coefficients	SE	95 % CI LL	UL
ROLC- Sustainability	0.608	0.021	0.587	0.629
ROLC- Sustainable Competitiveness	0.108	0.012	0.096	0.120
Sustainable Competitiveness- Sustainability	-0.141	0.001	-0.142	-0.140

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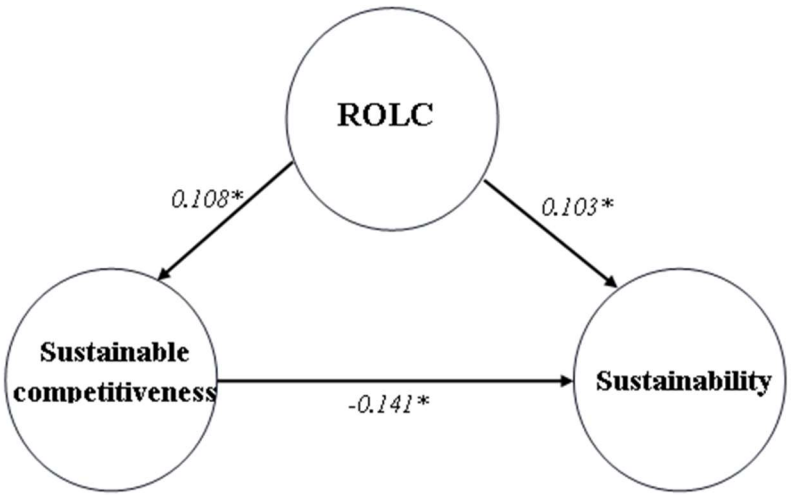

Figure 2. Hypothesized model and standardized estimate. Note: *p < 0.001.

5. Discussion

This study aimed to explore the relationships between various demographic factors and several key scales, including the Change Leadership Competency Questionnaire, the Corporate Sustainability Development Scale, the Sustainable Competitive Advantage Scale, and the Employee Resilience Scale (EmpRes). The results provide valuable insights into how demographic variables influence organizational performance, sustainability, competitive advantage, and employee resilience.

5.1. Change Management and Demographic Factors

The Change Leadership Competency Questionnaire's "Change Manager" domain showed a mean score of 59.76, indicating a generally positive perception of change management among employees. Analysis of demographic factors revealed no significant differences in "Change Manager" scores across gender, age, salary range, sector, job position, or total job experience, suggesting a consistent perception of change management competencies among diverse employee groups. This finding aligns with the work of previous studies, who suggested that effective change management skills are broadly applicable across various demographic groups [65-66].

5.2. Corporate Sustainability Development

The Corporate Sustainability Development Scale's results highlighted notable differences in economic development scores by job position and sector. Specifically, executives reported higher scores in economic development (mean = 21.25) compared to other positions, which may reflect their strategic involvement in sustainability initiatives [56,67-68]. Additionally, significant differences in organizational performance were observed among sectors, with the education sector scoring highest (mean = 23.54), which could be attributed to its emphasis on long-term sustainability [69]. However, gender, age, and salary range did not significantly impact the dimensions of sustainability, suggesting a uniform approach to sustainability across these demographics.

5.3. Sustainable Competitive Advantage

The Sustainable Competitive Advantage Scale results indicated significant gender differences in organizational performance and total scores, with males reporting higher scores than females (p-values = 0.033 and 0.002, respectively). This finding suggests a potential disparity in how different genders perceive or experience organizational performance, which could be influenced by varying roles and responsibilities [37,70-71]. Sector-based analysis also revealed significant differences in organizational performance, with the education sector again scoring highest (mean = 23.54),

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supporting the notion that certain sectors prioritize competitive advantage differently [73-74]. Job position had a significant impact on organizational performance, with executives scoring lowest, potentially due to the high demands and challenges associated with leadership roles [75-76].

5.4. Employee Resilience

The Employee Resilience Scale (EmpRes) highlighted significant differences based on age, salary range, sector, and total job experience. Younger employees (under 30 years) exhibited higher resilience scores compared to those over 40 years (p-value = 0.001), which may reflect greater adaptability and flexibility among younger workers [77-78]. Additionally, employees in lower salary brackets reported higher resilience (mean = 40.76) compared to those in higher salary ranges (mean = 35.52), suggesting that financial pressures might impact perceived resilience [79-80]. In terms of sector, employees in education had the highest resilience scores (mean = 40.50, p-value = 0.039), possibly due to the supportive and nurturing environment of educational institutions. Finally, employees with less than 5 years of experience showed higher resilience (mean = 40.00) compared to those with more than 15 years (mean = 36.48, p-value = 0.016), which could be indicative of the challenges faced by more experienced employees in maintaining resilience over time [80].

6. Conclusion

In summary, the study demonstrates that while demographic factors such as age, job position, and sector can significantly influence perceptions of organizational performance, sustainability, and employee resilience, other factors such as gender and salary range show mixed results. These findings underscore the importance of considering demographic variables in organizational assessments and highlight areas for further research to understand the underlying reasons for these differences. Future studies could explore the qualitative aspects of these relationships to gain a deeper understanding of how demographic factors impact organizational outcomes and employee experiences.

7. Implications

This study adds to the literature on the role leaders play in organizational change, specifically, regarding the sustainability of the organization after the change. First, it will examine the relationship between the role played by the leader during the change process and sustainability. Second, it provides a mediation model analyzing the mediating role of sustainable competitiveness on the role of the leader in change process and sustainability. Third, employee resilience will moderate the relationship between the role of the leader during change and sustainability. This model will be tested in the context of public and private sectors in Saudi Arabia that have gone through a change. Such relationships have not been thoroughly discussed in previous literature in the Saudi context. Finally, this research will offer a contribution to future scholars by presenting a conceptual model that explores the relationships of all the study's variables.

8. Limitations

This research is not without limitations. First, the area of research consisted in several public and private sectors that went through organizational changes in Saudi Arabia only, limiting the diversification of results of the proposed conceptual model to one country. Second, the sampling pool contains employees of these sectors only, which may result in respondent bias to their specific sector and may restrict the results to be observed over several companies and/or sectors.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data sharing is not applicable. The data are not publicly available due to participants' privacy.

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