

Successful Implementation of “ADKAR” Change Management Model in SMEs: The Role of Transactional and Transformational Leadership Styles

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Abstract. As a means of assisting business leaders in effectively embracing change, a variety of organizational change models have been designed. Amongst these models, ADKAR model stands out because it relies on digital computerized techniques to support organizational leader’s decision-making during change implementation stages. This research aims at investigating how transformational and transactional leadership styles influence organizational change by adapting the ADKAR change model. Data were collected from 385 employees working in Lebanese SMEs undergoing change. According to the results, ADKAR model has a substantial positive relationship with both transactional and transformational leadership styles; besides, the leadership pillar appositeness varies among the implementation stage. The current study aims to groundwork for further research into the function of transactional and transformational leadership styles in ensuring the utilization of the digitized ADKAR change model. It also provides useful insights to practitioners to achieve the successful change implementation in their organizations.

Keywords: Transformational Leadership Style, Transactional Leadership Style, Change Management, ADKAR Change Model, Small and Medium Enterprises.

1 Introduction

The complexity of organizational change has prompted the development of several planned change models, including Lewin's early model, Kotter model, and the digitization-aided ADKAR model. These models embed sophisticated phases designed to aid organizational leaders' change efforts.

Scholars largely agreed on the importance of leader behavioral intention and leadership traits, behaviors, and styles in effective change implementation, considering the association between leading change and leader cognition [1], effective change and leader behavior [2], change commitment and communication [3], leader awareness and transparency [4], and leadership practices and effectiveness [5], among others. Furthermore, many studies have focused on the link between transformational and transactional leadership and change, analyzing, for example, the type of change [6], resistance to change [7], and successful change implementation [8].

However, existing research on leadership and change confirms the scarce evidence on the role of leadership during change processes [9]. No prior study has empirically studied the relationship between transformational and transactional leadership styles and planned change approaches, including the ADKAR change model. To fill this gap, this research provides a theoretical framework that is empirically tested, claiming that transactional and transformational leadership enable effective change implementation, although the pillars importance may differ at each change stage; thus providing practitioners and organization leaders with the premises to effectively execute change in their organizations, and setting the groundwork for academics to investigate this relationship with respect to other planned change models.

2 Theoretical Framework

Prosci® developed the ADKAR change model in 2006 [10]. This model attempts to provide a theoretical and computerized framework for managers to assess change stages. This model entails five sequential blocks. The "Awareness" stage aims to alert organizational members to the necessity of change, set vision, and identify change scope. The "Desire" stage involves managers implementing new strategies and technologies. The stage of "Knowledge" aims at providing employees with the core know-how needed to implement change. "Ability" stage emphasizes intellectual ability and resource availability for competency development. Lastly, in the "Reinforcement" stage, leaders celebrate success, remunerate and recognize high performers, and set the base for future change [10].

This model proved its applicability in different settings, including the retention of skills and knowledge [11], project changes [12], and gender and organizational change [13].

For an effective change, managers must improve leadership, address worker concerns, and gain cooperation [14]. Although there are many theories that define leadership, transactional and transformational leadership styles are still considered the most researched and relevant [15]. While transformational leadership theory emphasizes

leaders with strong relationships with team members, influencing them to achieve business goals and aligning their goals with the business's needs and objectives; transactional approach can promote positive change through rewards and corrective actions. These approaches foster strong bonds between leaders and teams, thus allowing organizations leaders to become more successful, especially during times of change and turbulence [16].

Transformational leadership style (TFLS) is constituted by the following pillars: "Idealized Influence (II)," which emphasizes leaders' charisma and trustworthiness for persuading followers; "Inspirational Motivation (IM)," which emphasizes optimism, ambition, and motivating communication to encourage followers toward the vision; "Intellectual Stimulation (IS)," which promotes rational, intuitive thinking towards performance improvement; and "Individual Consideration (IC)," focused on employees' needs to build capabilities [17]. Transactional leadership style (TRLS) involves three pillars. "Contingent Rewards (CR)," which entail the rewards received by employees for good performance; "Management by Expectations Active (MBEA)", which involves leaders proactively addressing performance deviations. "Management by Expectations Passive (MBEP)," contemplates the reactive behavior of leaders; since change management must imply a proactive approach, MBEP will be excluded from this specific study.

Scholars generally agreed about the role of leadership styles, skills, and behaviors in the successful implementation of change [18, 19]. Conceptually, leaders at the "Awareness" stage should establish communication, coach employees to understand the reasons and benefits of change, and gain commitment. Besides, being an effective spokesperson, the leader engages employees and build a guiding coalition that reinforces awareness at all organizational levels [10]. Thus, a trusted and visionary leader can convey the change message via II and inspire employees to develop a coalition to lead the change through IM [10]. Leaders may address employee anxiety through IC and look at the changes as essential for the organization through IS [18, 19]. Leaders may also monitor and act upon awareness and promise rewards through MBEA and CR [18, 19].

At the "Desire" stage, employees might become disengaged if leaders fail to inspire, empower, and motivate them to "give life" to change. Especially when employees are intently watching their leaders' conduct to see if they are committed to change [20]. Leaders still need to instill trust through II, while IM is required to maintain the coalition, IS is essential to developing radical change innovations, and IC assists in addressing employee concerns, avoiding change disengagement [10]. Besides, leaders can utilize MBEA and CR to monitor and reward employees by linking them to their performance [18].

In the "Knowledge" stage, leaders must compare current performance against future standards and work on employee's task and role adaptability through knowledge-building to perform well. This could involve one-on-one mentoring, discussion boards, and job assistance [20], and that can be fostered through II, IS, and IC [10]. MBEA is also a useful tool for tracking learning deviations [18].

The "Ability" stage concentrates on transferring acquired knowledge into skills and abilities. Change leaders aid employees to develop skills and change their behaviors.

Leaders should be aware of psychological and physiological obstacles that might cause fear and restrict people from reaching their maximum potential, feedback on tasks performance helps top managers fix deviations and take corrective actions [20]. At this stage, II is needed to make employees believe that they are able to perform in a new way, IS fosters rational and innovative thinking, IM instills optimism to achieve performance expectations, and MBEA helps monitor performance, intervene, and offer feedback [10, 18, 19].

At the last stage “Reinforcement”, leaders provide constructive feedback, celebrate success, and distribute promised rewards during the desire stage. This highlights the role of TRLS through CR and MBEA [10]. TFLS pillars are also relevant; for instance, II may increase employee-leader confidence, through IM leaders encourage employees to continue performing well; follower-leader trust is higher instilled when rewards are distributed and when the vision is achieved through II; and through IC leaders continue to provide feedback and mentor the employees [10, 18, 19].

Based on the exposed premises, it seems that both leadership styles, TRLS and TFLS, impact positively on organizational change and could jointly act to foster it, although the influence of their pillars can vary in the different stages of the ADKAR change model. This last assumption, not studied before, will be tested in our proposed model.

3 Methodology

Probabilistic cluster sampling was used to collect data from the different provinces of Lebanon. Respondents were employees from SMEs undergoing change, selected randomly, with the final sample composed of 385 respondents. MLQ 5x subordinate rating was used to measure the TRLS and TFLS [21], and the ADKAR dashboard was used to track change progress [22], using a 5-point Likert scale. A pilot study was conducted on 50 respondents to ensure questions validity.

4 Results

A two-stage approach was adopted to analyze TFLS, TRLS, and ADKAR change model second-order constructs.

Table 1 provides the model indicators and latent variables loads, t-values, CR, CA, and AVE, suggesting model reliability and convergent validity according to criteria previously established by research [23], [24].

Table 1-Model Measurements

Construct	Indicator	Loading ^a	t-Value	CA ^b	CR ^c	AVE ^d	
Transformational Leadership Style	TFLS1_BII1	0.745	27.563	0.784	0.861	0.607	
	TFLS2_BII2	0.789	35.113				
	TFLS3_BII3	0.789	32.37				
	TFLS4_BII4	0.793	35.04				
	TFLS9_IM1	0.848	61.359	0.824	0.883	0.654	
	TFLS10_IM2	0.829	44.136				
	TFLS11_IM3	0.818	40.187				
	TFLS12_IM4	0.735	20.162				
	TFLS13_IS1	0.741	23.447	0.723	0.828	0.547	
	TFLS14_IS2	0.726	23.691				
	TFLS15_IS3	0.699	17.236				
	TFLS16_IS4	0.789	35.357				
	TFLS17_IC1	0.79	31.215	0.814	0.877	0.641	
	TFLS18_IC2	0.839	37.251				
	TFLS19_IC3	0.775	48.281				
	TFLS20_IC4	0.797	31.777				
	Second order				0.827	0.878	0.595
	Transactional Leadership Style	TRLS1_CR1	0.786	31.575	0.778	0.857	0.6
		TRLS2_CR2	0.74	26.727			
		TRLS3_CR3	0.79	38.211			
TRLS4_CR4		0.782	34.243				
TRLS5_MBEA1		0.784	34.434	0.711	0.822	0.536	
TRLS6_MBEA2		0.727	22.755				
TRLS7_MBEA3		0.72	22.413				
TRLS8_MBEA4		0.695	21.452				
Second order				0.74	0.83	0.705	
ADKAR Change Model	AW1	0.779	36.292	0.763	0.847	0.582	
	AW2	0.762	24.119				
	AW3	0.767	34.17				
	AW4	0.742	21.73				
	DES1	0.705	22.123	0.794	0.866	0.618	
	DES2	0.801	42.318				
	DES3	0.812	49.013				
	DES4	0.822	39.016				
	KNW1	0.803	43.38	0.833	0.89	0.671	
	KNW2	0.852	63.304				
	KNW3	0.712	25.566				
	KNW4	0.898	64.662				
	AB1	0.723	24.579	0.741	0.838	0.564	
	AB2	0.693	21.235				
	AB3	0.767	28.644				
	AB4	0.816	36.801				
	REI1	0.736	23.353	0.779	0.859	0.605	
	REI2	0.719	24.339				
	REI3	0.762	29.005				
	REI4	0.883	53.99				
Second Order				0.837	0.885	0.607	

^a Factor loading >0.5 indicates indicator reliability

^bCA: Cronbach's Alpha > 0.7 indicates indicator reliability

^cCR: Composite Reliability > 0.7

^dAVE: Average Variance extracted > 0.5 indicated convergent validity

Fornell-Lacker criterion was used to calculate second-order model AVE and cross loadings, ensuring its discriminant validity [25], as the loads met the criterion (Table 2 and Table 3).

Table 2-Discriminant Validity

Factor	1	2	3	4	5	6	7	8	9	10	11	13	14	
Ability	0.75													
Awareness	0.51	0.76												
CR	0.34	0.34	0.78											
Desire	0.54	0.45	0.30	0.79										
IC	0.19	0.22	0.39	0.25	0.80									
II	0.46	0.43	0.52	0.51	0.43	0.78								
IM	0.42	0.39	0.46	0.49	0.35	0.66	0.81							
IS	0.45	0.38	0.57	0.52	0.40	0.61	0.57	0.74						
Knowledge	0.51	0.39	0.28	0.62	0.21	0.42	0.35	0.41	0.82					
MBEA	0.38	0.36	0.41	0.38	0.78	0.51	0.39	0.56	0.35	0.73				
Reinforcement	0.52	0.44	0.35	0.50	0.29	0.41	0.39	0.40	0.59	0.43	0.78			
ADKAR												0.78		
TRLS												0.54	0.84	
TFLS												0.63	0.75	0.77

Table 3-Second Order Construct Item Cross Loadings

Construct	ADKAR	TRLS	TFLS
Awareness	0.70	0.41	0.44
Desire	0.81	0.41	0.56
Knowledge	0.79	0.38	0.44
Ability	0.79	0.42	0.49
Reinforcement	0.78	0.46	0.48
MBEA	0.4	0.86	0.66
CR	0.41	0.80	0.59
IC	0.29	0.71	0.73
II	0.57	0.60	0.86
IM	0.52	0.50	0.82
IS	0.55	0.66	0.81

Figure 1 shows model 5000 bootstraps analysis results, including relationship tests and model Goodness of Fit (GoF). The results indicated that TFLS and TRLS adequately described a moderate variance on ADKAR change model ($R^2 = 0.406$, $Q^2 = (1 - SSE/SSO) = 0.23 > 0$), indicating that the model has sufficient ability for prediction [26]. As $GoF = 0.51 > 0.36$, the model is a legitimate PLS global model and credible at the structural and measurement levels [26].

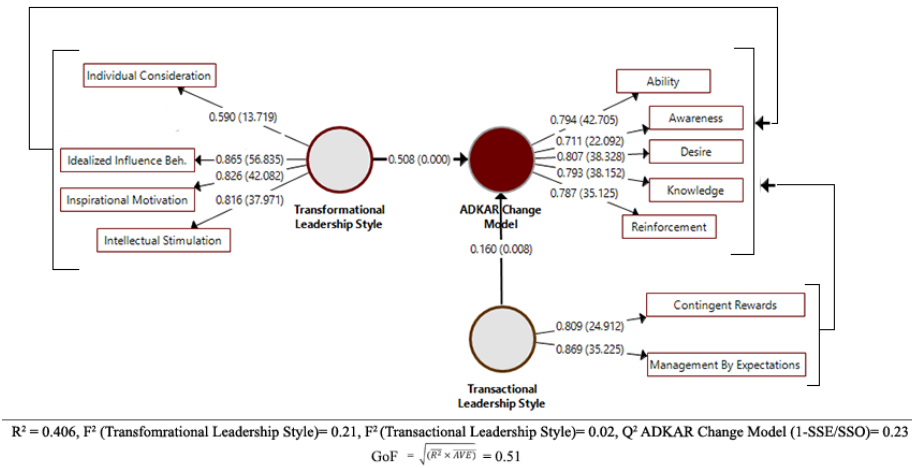


Figure 1 - Model Results

Table 4 relates to relationships between the TFLS and TRLS pillars and ADKAR model stages. According to the findings, there is not a significant impact between IS and awareness and reinforcement, between CR and knowledge or ability, and between IM and knowledge. Significant influence exists between the rest of the TFLS and the TRLS pillars and ADKAR change stages.

Table 4-Relationship between Transformational, Transactional Leadership Pillars and ADKAR Change Stages

Constructs	Awareness			Desire			Knowledge			Ability			Reinforcement		
	β	T	P	β	T	P	β	T	P	β	T	P	β	T	P
II	0.2	2.7**	0.00	0.2	3.92**	0.00	0.2	3.43**	0.00	0.2	2.63**	0.00	0.1	1.35*	0.05
IM	0.2	2.29**	0.01	0.2	3.86**	0.00	0.1	1.25	0.10	0.2	2.1**	0.01	0.1	1.87*	0.03
IS	0.03	0.43	0.33	0.3	4.02**	0.00	0.1	2.02**	0.02	0.1	1.83*	0.03	0.03	0.47	0.31
IC	0.2	2.92**	0.00	0.1	2.11**	0.01	0.2	2.84**	0.00	0.3	4.39**	0.00	0.2	2.39**	0.00
CR	0.1	1.61*	0.05	0.1	1.5*	0.05	0.08	0.18	0.43	0.1	0.96	0.16	0.1	1.83*	0.03
MBEA	0.3	4.06**	0.00	0.2	2.51**	0.00	0.3	3.63**	0.00	0.4	4.75**	0.00	0.4	4.48**	0.00

** $p < 0.01$ * $p < 0.05$ at Two tailed test with 0.05 Sig. Level

Table 5 relates to the relationship between leadership styles and successful change implementation using the ADKAR model, showing that TFLS and TRLS were positively associated with the ADKAR model. It can be also concluded that TFLS has a greater association with the ADKAR model than TRLS. Finally, the results confirm that TFLS and TRLS jointly have a higher positive impact on the ADKAR change model than when adopted separately.

Table 5-Relationship between Transformational, Transactional Leadership and ADKAR Change Model

Relationship	Std. β	STDEV	T-value	P Values	Decision	F ²	2.5% CI LL	97.5% CI UL
TFLS->ADKAR	.61	0.056	9.1	0.00	Supported **	.21	0.399	0.622
TRLS->ADKAR	.17	0.057	2.9	0.008	Supported **	.02	0.048	0.27
TFLS +TRLS-> ADKAR	.72	0.035	18.1	0.00	Supported **	0.72	0.54	0.68

***p<0.01 *p<0.05 at Two tailed test with 0.05 Sig. Level*

5 Discussion and Conclusion

This research aims to contribute to the few studies that have explored leadership types and change management approaches. While Lewin's change model has flaws, including linearity and inability to incorporate leader-follower relationships, and the Kotter model focuses on organization change as a system, thus emphasizing the importance of leadership basically in implementing change, the ADKAR model proposes a contemporary, detailed-step approach, which places individuals at the center of change processes.

Our research proposes that TFLS and TRLS influence positively organizational change and could jointly act to foster it, although their pillars could exert different influences on the different stages of change. The findings support these propositions. Specifically, the results contribute theoretically, suggesting that leaders should modify their leadership style at each stage of change implementation. Therefore, from a theoretical perspective, we contribute to the limited research on the topic of how different types of leadership affect the success or failure of planned change models, confirming the existence of the leader character component across all ADKAR change models.

From our results, some detailed implications for practitioners, specifically leaders in SMEs of developing countries also emerge. For instance, managers with idealized influence character are typical role models, trusted and respected by their followers to make good decisions and set a new vision, and instilling pride in them for being members of the organization can ensure successful implementation of the five ADKAR change stages. Actions through inspirational motivation, like motivating employees and instilling a sense of purpose, besides the leader's ability to inspire confidence to perform beyond expectations to achieve the new vision, are essential throughout the awareness, desire, ability, and reinforcement stages. Furthermore, when leaders challenge their followers to think critically, take risks, and generate new ideas through intellectual stimulation, they can foster change during the desire, knowledge, and ability stages. When mentoring employees, delegating tasks to qualified employees, and considering each follower's needs, abilities, and aspirations through individualized considerations, transformational leaders can successfully manage change during the change stages. Adding to this, throughout the five stages, managers should actively monitor employee performance and predict performance problems proactively through active management by expectations, while promising rewards facilitates awareness and desire stage

implementation. After distributing rewards and recognizing change, employees ensure reinforcement stage implementation. Figure 2 depicts the leader's preferable behavior at each change stage.

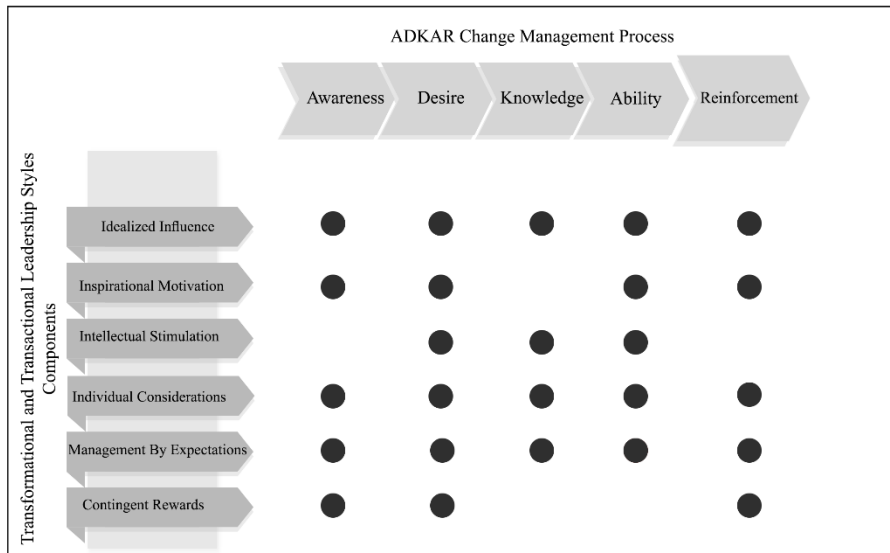


Figure 2- Leadership Behavior During Change

Although this research was carried out on organizations that are undergoing change, and the model proved to be a valid measurement tool, the findings cannot be generalized to large organizations, industrial or public organizations, or those that operate in countries that are unlike Lebanese country culture. While many nations, like Lebanon, are likely to undergo organizational change to cope with economic and social crisis, this constitutes an ideal scenario to demonstrate if the proposed leadership styles and change models are connected. In these countries, scholars can play a proactive role in determining the approaches that aid policymakers and organization leaders to address change needs, thus validating this model. Doing so, organizations leaders can develop behavioral dimensions and modify practices in accordance with the change stage. Executive leaders can also identify individuals who possess the leading qualities, competencies, and capabilities to lead change.

As future research lines, other forms of leadership can also be analyzed, considering other change models such as Kotter model, along with longitudinal data to examine how different types of leadership interact with different kinds of change models throughout time.

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