Resistance to Change as a Barrier to Business Process Reengineering Projects in the Era of Modern Information Technology Towards an Integrated Conceptual Model in the Algerian Context

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Abstract:

This study aims to analyze resistance to change as a structural barrier to Business Process Reengineering (BPR) in Algerian organizations. It adopts a theoretical-analytical approach based on a Systematic Literature Review, SWOT analysis, and four semi-structured interviews. Findings indicate that managing resistance simultaneously with process reengineering enhances BPR success in Algeria's institutional context and supports the proposed participatory Impetus-Transformation-Performance (ITP) model.

Keywords: resistance to change; business process reengineering (BPR); change management; information technology; organizational performance

Jel Classification Codes: D23, L23, M15, O33

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Introduction :

Business Process Reengineering (BPR) has emerged as one of the most radical management approaches adopted by organizations seeking qualitative improvements in their organizational performance, particularly in the face of escalating digital transformation pressures and intensifying competition at both local and international levels. Since Hammer and Champy (1993) established the foundations of this approach, field experience has confirmed that reengineering represents a strategic imperative rather than an organizational luxury, especially when combined with modern IT orientations such as artificial intelligence, cloud computing, and intelligent automation.

Yet scientific literature converges on a sobering reality: BPR project failure rates range between 50% and 70% (Hammer & Champy, 1993). The primary cause of failure is not technical shortcomings but rather neglect of the human dimension — foremost among these being the phenomenon of resistance to change. In the Algerian context specifically, this phenomenon takes on additional significance given the dominance of traditional bureaucratic patterns in public institutional management and the absence of a participatory decision-making culture.

The most prominent change management models, including Lewin's, Kotter's, and ADKAR, do not fully belong to the participatory paradigm; instead, they remain based on the principle that management ultimately makes the key decisions.

This study addresses the following central research question: How does resistance to change affect the trajectory of BPR projects in Algerian organizations, and what is the optimal conceptual model for managing it within a framework that integrates modern IT orientations?

Research Hypotheses:

The adoption of modern IT orientations in BPR projects intensifies resistance to change in the absence of effective change management.

The application of established change management models (Lewin, Kotter, and ADKAR) significantly reduces resistance to change and improves BPR project success rates.

Employee participation in the BPR design phase reduces resistance and strengthens voluntary engagement in implementation.

Organizations that integrate change management within BPR methodology achieve higher performance improvements than those relying solely on technical reengineering.

Research Objectives:

To analyze the concept of resistance to change and its manifestations in the context of BPR projects.

To review the theoretical models of change management and link them to BPR practice.

To systematically review the prior literature and identify the research gap.

To conduct a SWOT analysis of Algerian organizational readiness for BPR adoption.

To propose an integrated conceptual model addressing resistance to change in the Algerian institutional context.

Research Importance:

This study's contribution stems from a theoretical gap rather than a mere geographic one: as the critical analysis in Section 2.5 shows, resistance to change, BPR, and IT are typically treated as distinct or only loosely connected dimensions, and the dominant change models (Lewin, Kotter, ADKAR) rest on assumptions of employee voice and institutional stability whose validity, per the paradigm classification in Section 2.7, depends on whether change is directive or participatory — none of the three models is in fact fully participatory, each retaining some managerial control over the pace of employee involvement. This gap, not the scarcity of empirical BPR studies in Algeria, is what motivates the research. The Algerian institutional setting nonetheless sharpens the stakes: its hierarchical structures and high power distance (Section 2.5.2) intensify resistance whenever change is imposed directively — the configuration common in Algerian public organizations. To address this compounded risk, the study proposes the Impetus–Transformation–Performance (ITP) model, which manages resistance simultaneously with reengineering rather than afterward, within a fully participatory paradigm. The accompanying SWOT analysis is not a separate contribution but an analytical instrument anchoring the model in Algerian organizational realities and adapting it to the institutional context studied.

Methodology:

This study follows a theoretical-analytical design built on a Systematic Literature Review (SLR) that critically synthesizes existing knowledge on resistance to change and BPR, consolidated into the proposed conceptual model and further enriched by a SWOT analysis of the Algerian organizational context. To ground this largely theoretical design empirically, the discussion is complemented by a small-scale exploratory qualitative illustration four semi-structured interviews conducted within a single Algerian banking institution (Section 4.2), chosen specifically to probe whether the hierarchical, directive change practices typical of Algerian public organizations intensify resistance as the proposed model anticipates. This illustration is not intended as a basis for empirical generalization, which remains a task for future research.

Research Structure:

Chapter 1: Theoretical framework resistance to change and BPR.

Chapter 2: Prior literature review and research gap.

Chapter 3: SWOT analysis of BPR adoption in Algerian organizations.

Chapter 4: The proposed integrated conceptual model.

Chapter 5: Discussion of the model and its theoretical contributions

Chapter one: Theoretical Framework

Resistance to Change: Concept and Dimensions

Organizational resistance to change is defined as the individual or collective response aimed at slowing, disrupting, or defeating organizational change efforts mandated by management (Kotter & Schlesinger, 1979). This resistance takes multiple forms that can be classified along two primary dimensions:

A. By Form*:*

Explicit active resistance: including open refusal, collective demands, and deliberate disruption of projects.

Implicit passive resistance: including declining productivity, psychological withdrawal, and intentional delays in implementation.

Rhetorical resistance: persistent questioning of the value of change and exaggeration of partial failures (Oreg, 2003).

B. By Source*:*

Oreg (2003) identified four dimensions of individual resistance in his widely cited scale: routine seeking, emotional reaction, short-term focus, and cognitive rigidity in rejection. Organizational literature additionally emphasizes collective dimensions such as group social pressure, loyalty to existing practices, and weak transformational leadership.

2.2 .Business Process Reengineering (BPR): Concept and Principles

Hammer and Champy (1993, p. 32) defined BPR as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical measures of performance such as cost, quality, service, and speed." This approach differs from incremental improvement along three fundamental characteristics:

Zero-based redesign: questioning the necessity and value of existing processes rather than improving them incrementally.

Process-focus rather than functional-focus: redesigning entire workflow streams rather than optimizing individual departmental tasks.

Technology as an enabling lever: using IT to enable entirely new ways of working, not merely to automate existing ones (Davenport, 1993).

2.3. The Relationship between Resistance to Change and BPR Project Failure

A landmark study by Al-Mashari and Zairi (1999), analyzing 119 BPR projects, found that neglect of the human dimension and change management was the common factor in the majority of failures. Similarly, Grover et al. (1995) revealed that projects involving employees in the design phase achieved success rates more than twice those in which change was imposed top-down. Venkatraman (1994) emphasized that deep transformation levels — which include process redesign — generate both the greatest performance improvements and the

strongest resistance to change, making change management a structural requirement rather than an optional add-on.

2.4. Theoretical Models for Managing Resistance to Change

a. Lewin's Model (1951) Unfreezing / Changing / Refreezing

Figure N°1: Lewin's Change Model



Source: Visual Paradigm, *What Is Lewin's Three-Stage Change Process Model?*, Visual Paradigm Blog, Page: N/A. https://blog.visual-paradigm.com/what-is-lewins-three-stage- change-process-model

Kurt Lewin proposed a three-stage model for organizational change that remains foundational in change management theory:

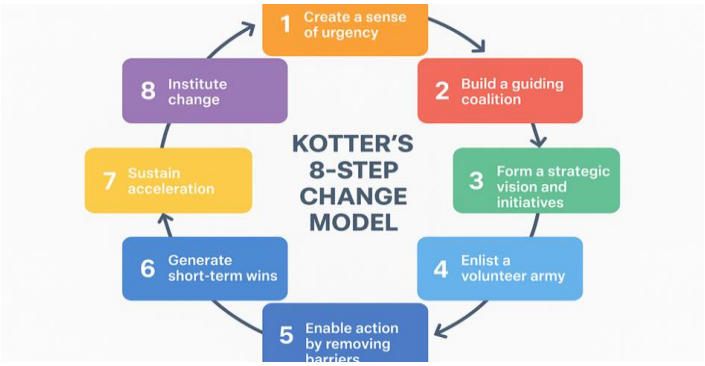
Unfreezing

Changing

Refreezing:

b. Kotter's Eight-Step Model (1996)

Figure N°2 Kotter's Eight-Step Model



Source: Lucidity, How To Successfully Implement Kotter's 8 Step Change Model, Lucidity, Web article, Page: N/A. https://getlucidity.com/strategy-resources/guide-to-kotters-8-step-change-model/

John Kotter's model provides a sequential roadmap for leading large-scale organizational change, with each step building the foundation for the next:

Create a sense of urgency

Build a guiding coalition

Form a strategic vision and initiatives

Enlist a volunteer army.

Enable action by removing barriers

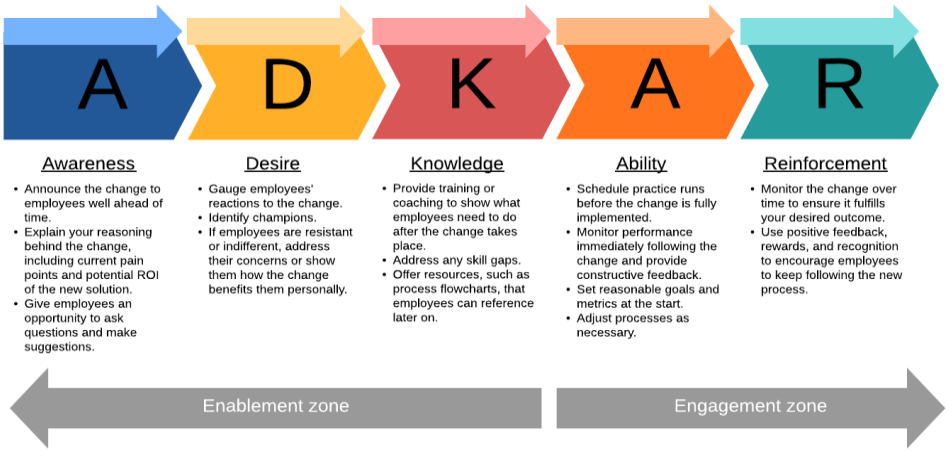
Generate short-term wins

Sustain acceleration

Institute change

c. The ADKAR Model (Hiatt, 2006)

Figure N°3: ADKAR Model (Hiatt, 2006)



Source: Visual Paradigm, *ADKAR Guide*, Visual Paradigm Online, Page: N/A. https://online.visual-paradigm.com/knowledge/project-management/adkar-guide-

Developed by Jeff Hiatt at Prosci, the ADKAR model frames organizational change as a series of five individual outcomes that must be achieved sequentially:

Awareness (A)

Desire (D)

Knowledge (K)

Ability (A)

Reinforcement (R)

The ADKAR model reframes resistance to change not as stubbornness but as a gap in one or more of these five building blocks a reframing that has important implications for BPR managers: rather than disciplining resistant employees, they should diagnose which ADKAR element is deficient and intervene accordingly.

2.5. Critical Analysis of Change Management Models: Applicability to BPR and the Algerian Institutional Context

The three models reviewed above Lewin's staged model, Kotter's eight-step model, and ADKAR form the dominant reference set invoked in the BPR change-management literature, and Hypothesis H2 of this study assumes that their application "significantly reduces resistance to change and improves BPR project success rates." Before this assumption can be operationalized in the proposed model, however, it must be subjected to critical scrutiny along two distinct lines: a general theoretical limitation, documented independently of any specific national setting, and a context-specific limitation tied to the institutional configuration of Algerian organizations.

2.5.1. General Theoretical Limitations

A first critique targets the internal coherence of these models rather than their contextual fit. Burnes (2004) notes that Lewin's three-stage model, despite its influence, is increasingly seen as ill-suited to rapid, transformational change, since it assumes a return to stable equilibrium once change is "refrozen" — an assumption at odds with BPR's radical, discontinuous nature (Hammer & Champy, 1993) and with the continuously evolving IT orientations (AI, cloud, big data, IoT, intelligent automation) discussed in Chapter Four, which rarely leave organizations a stable state to refreeze into. A second critique concerns the empirical status of change-management theory generally: Todnem By's (2005) influential review concludes that available theories are "often contradictory, mostly lacking empirical evidence and supported by unchallenged hypotheses." Lewin, Kotter, and ADKAR should therefore be read as heuristic frameworks of variable effectiveness depending on the type of change, sector, and institutional environment rather than validated causal laws. A third limitation concerns origin: all three models were built on Western, largely Anglo-American settings (Lewin's group-dynamics experiments, Kotter's North American corporate studies, and Hiatt's ADKAR drawn from Prosci's mostly North American benchmarking data), with none constructed from or validated against emerging-economy, state-dominated, or high-power-distance contexts such as the Algerian public sector.

2.5.2. Context-Specific Limitations: The Algerian Institutional Configuration

Although valuable in principle, Lewin's, Kotter's, and ADKAR's frameworks face constraints in Algeria's institutional context: its high power-distance culture (PDI = 80) centralizes decision-making and limits employee participation, making resistance to change more passive and implicit and reducing the effectiveness of models that assume active employee involvement. Bin Taher et al. (2015) similarly found resistance the primary obstacle to BPR in the UAE public sector and called for adapting Western change models to Arab administrative cultures, while Baaziz and Quoniam (2014) pointed to the regulatory and institutional instability of the Algerian environment as a barrier to institutionalizing change à la Lewin and Kotter. This study therefore argues that effective resistance management requires continuous employee participation throughout the BPR process, not the stage-limited participation found in existing models a conceptual gap that justifies the proposed Impetus–

Transformation–Performance (ITP) model, which integrates resistance management with process reengineering simultaneously through a participatory approach adapted to the Algerian institutional context.

2.5.3. Synthesis: Two Possible Readings

This critical analysis leads to two main conclusions. First, the Algerian organizational context, characterized by high power distance and bureaucratic structures, limits employee participation and makes resistance to change more difficult to manage. Therefore, a participatory approach is essential for effective resistance management, as it ensures employees' active involvement throughout the change process.

Second, although Lewin's, Kotter's, and ADKAR's models include participatory elements, they remain only partially participatory, since management ultimately controls the scope and timing of employee involvement. Consequently, they do not fully meet the requirements for managing resistance to change in the Algerian context.

This theoretical limitation justifies the proposed ITP conceptual model, which integrates resistance management directly into the BPR process through continuous employee participation from the earliest stages. By adapting change management to the Algerian institutional context, the model addresses the first and second research gaps identified in Chapter Two.

2.6 .Technology Challenges in the Algerian Context

Because modern IT orientations artificial intelligence, cloud computing, big data analytics, the Internet of Things, and intelligent automation constitute the independent variable ("Impetus") of the integrated model proposed in Chapter Four, an accurate reading of the current state of technology adoption in Algeria is a necessary precondition for assessing the model's contextual relevance. The evidence reviewed below is organized along three levels: the national/institutional level, the sectoral level, and the enterprise level.

2.6.1 .National Digital Readiness

At the national level, Algeria's digital transformation trails regional and global benchmarks despite measurable progress: per the UN's EGDI, it ranked 116th of 193 countries in 2024 (score 0.5956, up from 0.5611 in 2022 but still below the global average) (UN DESA, 2024). Mahdjar and Abdelmalek (2025) similarly place Algeria "medium-to-low" on the UN Technology Index (0.3750 vs. a 0.46 global average) — last among North African countries in adopting AI, cybersecurity, and cloud computing in government administration, directly relevant to this paper's Impetus variable since these enabling technologies are themselves unevenly adopted nationally. This isn't for lack of institutional commitment: the "Digital Algeria 2030" strategy (High Commission for Digitalization, 2024) spans five pillars — infrastructure, human capital/training, digital governance, digital economy, and digital society — with twenty-five objectives for 2025–2030. Yet Mahdjar and Abdelmalek (2025) note implementation still faces fragmented institutional databases, incomplete network coverage, and affordability

barriers hitting rural and low-income populations hardest limiting digital infrastructure precisely where BPR-driven public-sector modernization is most needed.

2.6.2 .Sectoral Evidence

At the sectoral level, empirical evidence confirms that the gap between strategic intent and operational reality seen nationally also recurs within individual administrations. Rezigat, Zergoune, and Bouakaz (2025), studying the digitalization of Algeria's tax administration, identify four interlocking obstacles — technical/infrastructural, legal/organizational, cultural/societal, and taxpayer-side barriers a sectoral illustration of the very Impetus-to-Transformation gap the proposed model addresses. This reinforces the Section 2.5 argument that technological readiness alone, without simultaneous treatment of organizational and human resistance, does not automatically translate into successful digital transformation.

2.6.3 .Enterprise-Level Constraints

At the enterprise level, two further constraints affect Algerian organizations' capacity to adopt the IT orientations underlying the proposed model. Djıdjık (2024) identifies limited access to financing, bureaucratic procedures, and regulatory barriers as dominant constraints on enterprise growth; since cloud migration, RPA, and AI integration are capital-intensive, these financing constraints directly limit investment in the technologies forming the model's Impetus variable. Compounding this, Baaziz and Quoniam (2014) show that Algerian state-owned firms face regulatory unpredictability that undermines the multi-year roadmaps large-scale AI, cloud, and IoT adoption typically require.

2.6.4. Implications for the Proposed Model

Taken together, this evidence indicates that the Impetus variable of the proposed ITP model is a necessary but not sufficient condition for organizational transformation in the Algerian context. National political commitment to digitalization is genuine and increasing, as reflected in the Digital Algeria 2030 strategy; however, its translation into organizational-level Transformation remains constrained by infrastructural fragmentation, financing limitations, regulatory volatility, and as established in Sections 2.1 and 2.5 the human dimension of resistance to change. This reinforces the central argument of this paper: technological impetus, however well-resourced at the national level, cannot by itself produce improved organizational performance; it must be coupled with the simultaneous management of resistance to change that is formalized in the integrated conceptual model presented in Chapter Four.

2.7 .Classifying Change Management Models by Paradigm: Directive versus Participatory Approaches

Section 2.4 reviewed Lewin's, Kotter's, and Hiatt's ADKAR models individually, following the convention of most reviews in this literature. Yet these models differ not merely in their sequencing of steps but in a more fundamental respect: the extent to which employees are treated as recipients of a decision already made or as co-authors of the change itself. Dunphy and Stace (1988) formalized this as a continuum from coercive/directive

approaches where management designs and imposes change with limited consultation to collaborative/consultative approaches, where employees help diagnose problems and shape solutions. Beer and Nohria (2000) later captured a related distinction between "Theory E" change (top-down, driven by economic value and structural restructuring) and "Theory O" change (bottom-up, built through participation, capability-building, and culture). These directive and participatory paradigms offer a more theoretically informative axis for organizing the models above than a simple author-by-author summary.

Table N°1: Classification of the Reviewed Change Management Models along the Directive–Participatory Paradigm Continuum

Model	Core Logic	Predominant Paradigm	Degree of Employee Voice
Lewin's Three-Stage Model (1951)	Change managed by leadership through sequential unfreeze–move–refreeze phases	Predominantly directive, though "unfreezing" allows a participatory reading if managed inclusively	Low to moderate — contingent on how unfreezing is operationalized
Kotter's Eight-Step Model (1996)	Change orchestrated by a top-driven guiding coalition with staged mobilization of the wider workforce	Mixed: directive framing in steps 1 3, followed by broader mobilization in steps 4–6	Moderate —voice is invited later, once direction is already set
ADKAR Model (Hiatt, 2006)	Change achieved through sequential individual outcomes: Awareness, Desire, Knowledge, Ability, Reinforcement	Participatory in orientation, since Desire and Ability presuppose genuine individual buy-in	Comparatively high but requires preconditions (psychological safety rarely guaranteed in directive settings)

Source: Prepared by the author, based on Dunphy and Stace (1988) and Beer and Nohria (2000).

Read through this paradigmatic lens, the three models converge on a shared limitation already noted in Section 2.5: none was designed as a purely directive or purely participatory instrument, but all three presuppose that management retains the initiative to select, sequence, and calibrate the degree of participation extended to employees.

The classification of models according to the directive and participatory paradigms is not an end in itself. Rather, it serves to justify the conceptual choice underlying the ITP model proposed in Chapter Four, which integrates a participatory approach to change resistance management. Unlike existing models, in which the extent and timing of employee participation remain largely determined by management, this approach responds to the prevailing change management practices observed in Algerian public institutions, which are often characterized by a directive logic that may reinforce employee resistance to change.

3 .Chapter 2: Prior Literature Review and Research Gap

3.1 .Summary of Prior Studies

below summarizes the most relevant prior studies, their contributions, and the gaps they leave:

Table N°2: Comparative Summary of Prior Studies and Research Gap

Study	Focus	Contribution	Gap
Hammer & Champy (1993)	BPR as radical approach	Proved need for radical change	Ignored modern IT orientations
Davenport (1993)	IT as change enabler	Linked processes to technology	Pre-AI technology era
Venkatraman (1994)	IT-enabled transformation	Incremental transformation model	Does not integrate resistance
Al-Mashari & Zairi (1999)	BPR success/failure factors	Human factor is primary determinant	Western context only
Kotter (1996) Lwin and adkar	Change management	Change management model	Predominantly directive and not specific to BPR.
Current Study	BPR + IT + Participatory Change Resistance Management	Integrated model I T P	not integrate participatory resistance management within BPR

Source: Prepared by the authors based on Hammer and Champy (1993), Davenport (1993), Venkatraman (1994), Al-Mashari and Zairi (1999), Kotter (1996), Hiatt (2006), and the authors' own synthesis.

3.2. Identified Research Gaps

A critical reading of the prior literature reveals three fundamental research gaps that this paper seeks to address:

Gap 1: Absence of an integrated theoretical model combining modern IT orientations, BPR, and participatory resistance to change management within a single interactive framework.

Gap 2: Scarcity of studies addressing BPR and resistance to change in the Algerian institutional context, with its distinctive organizational and cultural characteristics.

Gap 3: Rarity of studies connecting modern IT trends such as artificial intelligence and cloud computing to the management of resistance to change in BPR contexts.

4. Chapter Three: SWOT Analysis BPR Adoption Readiness in Algerian Organizations

Prior to proposing the conceptual model, a SWOT analysis is conducted to diagnose the environment surrounding BPR projects in Algerian organizations. This analysis identifies internal strengths and weaknesses alongside external opportunities and threats, thereby substantiating the rationale for the proposed model and demonstrating its contextual relevance:

Table N°3: SWOT Analysis BPR Adoption Readiness in Light of Modern IT Orientations in Algerian Organizations

Strengths	Weaknesses
S1 Proven theoretical models for change management (Lewin, Kotter, ADKAR) S2 Growing Algerian political will to support digital transformation S3 Young workforce with increasing technical competencies S4 Established BPR literature provides a solid theoretical foundation S5 Successful experiences in the Algerian telecommunications sector	W1 Dominant bureaucratic culture that feeds resistance to change W2 Fragmented information systems and lack of digital integration W3 Absence of participatory decision-making culture W4 Limited experience with comprehensive BPR in Algerian organizations W5 Inadequate training budgets for modern technology adoption
Opportunities	**Threats**
O1 Decreasing costs of AI and cloud computing solutions O2 Competitive pressures driving institutional modernization O3 Potential to test the model across multiple sectors in future research O4 International partnerships supporting digitization in Algeria	T1 Rapid technological change risks overwhelming organizations T2 Entrenched resistance may defeat projects despite available resources T3 Growing cybersecurity requirements and associated costs T4 Difficulty generalizing Western models to the Algerian context

Source: Prepared by the authors based on the systematic literature review and analysis of the Algerian organizational context.

4.1. Strategic Matrix Derived from the SWOT Analysis:

(S+O) Offensive Strategy: Leverage proven change management models, a technically competent young workforce, and declining technology costs to develop BPR models adapted to the Algerian context.

(W+T) Defensive Strategy: Address bureaucratic culture and ensure participatory design as prerequisites before launching any BPR initiative, to prevent early-stage failure.

(S+T) Contingency Strategy: Draw on established literature to develop contextually adapted BPR models resistant to rapid technological obsolescence.

(W+O) Developmental Strategy: Leverage international partnerships and government support to modernize digital infrastructure and bridge the workforce's digital competency gap.

4.2. Exploratory Field Illustration: Preliminary Qualitative Evidence from the Algerian Banking Sector

BDL offers a relevant exploratory context, as its digitalization initiatives involve not only technological adoption but also changes in processes, employee roles, and work practices. Consistent with the study's theoretical-analytical design, four semi-structured interviews were conducted to illustrate — not empirically validate — the directive and participatory dimensions of change management, with participants purposively selected across four organizational perspectives: a project manager, an HR/training officer, a front-line employee, and an

information systems officer. Table 4 maps their responses onto the directive/participatory indicators identified in Section 2.7.

Table N°4: Exploratory Interview Findings Mapped onto Directive/Participatory Paradigm Indicators

Indicator	Project Lead	HR / Training Officer	Branch Employee	IT Officer
Consultation prior to implementation	Limited to intermediate managers; overall direction pre-set	None at the strategic level	None reported	Limited to test phases
Perceived decision style	"Majority directive, with some participatory elements"	"Plutôt directive" despite some dialogue	"Imposed change"	"Mixed, but strongly directive"
Employee input incorporated	Mainly during deployment, to flag difficulties	Through training feedback loops	Minimal questions allowed, decisions unchanged	Technical feedback incorporated into fixes
Accompanying measures	Training, user guides, technical support	Training, coaching, communication	Training, technical assistance	Hotline, technical support
Retrospective preference (final question)	"Involve users earlier in preparation"	"Start training earlier, communicate benefits"	"Better preparation before rollout"	"More user testing before deployment"

Source: Prepared by the author, based on four exploratory interviews conducted at BDL (2026).

Three findings emerge from this exploratory illustration: (1) all four respondents perceived the BPR initiative as predominantly directive, with participation limited to implementation rather than design; (2) perceptions of directiveness increased down the hierarchy, meaning management's participatory intentions were less evident at operational levels; and (3) all respondents retrospectively wished for earlier, greater involvement — offering preliminary support for Hypothesis 3 and this study's participatory reading of resistance.

Being based on a single organization, four purposively selected participants, and self-reported, non-triangulated data, this illustration remains exploratory — it does not support statistical generalization, but points to the need for future empirical validation on a larger, more representative sample of Algerian organizations.

5. Chapter 4: The Proposed Integrated Conceptual Model

5.1. The components of the model

Table N°5: Integrated Conceptual Model Relationship Between the Three Variable

Independent Variable	Mediating Variable	Dependent Variable
Modern IT Orientations •Artificial Intelligence (AI) •Cloud Computing •Big Data Analytics •Internet of Things (IoT) •Intelligent Automation (RPA)	BPR + Change Resistance Management •Radical rethinking •Process redesign •Process automation •Participatory change •Change agents	Improved Organizational Performance •Operational efficiency •Quality and effectiveness •Organizational flexibility •Cost reduction

Source : Prepared by the authors based on the systematic literature review and the proposed ITP conceptual model

5.2. Explanation of Model Components

5.2.1. Independent Variable — Modern IT Orientations:

Modern IT orientations span five dimensions: Artificial Intelligence (data-driven decision-making), Cloud Computing (flexible, scalable infrastructure), Big Data Analytics (strategic insights from large datasets), the Internet of Things (real-time process monitoring), and Intelligent Automation/RPA (freeing human capital for creative and strategic tasks). These orientations create unprecedented opportunities for process redesign while simultaneously fueling employee anxiety and resistance a dual dynamic the proposed model explicitly addresses.

5.2.2. Mediating Variable BPR Integrated with Change Resistance Management:

The proposed model is grounded in the participatory paradigm and integrates change resistance management directly within the BPR methodology, rather than as a separate preceding or following phase — assuming resistance emerges and evolves in parallel with BPR's stages and thus requires simultaneous, integrated management through the six factors in Table 6.

Table N°6: Resistance Factors in BPR Projects and Their Management Mechanism

Resistance Factor	Root Cause	Management Mechanism
Fear of job loss	Automation and workforce reduction	Job security guarantees + internal redeployment
Weak institutional communication	Ambiguity of project objectives	Comprehensive, transparent communication plan
Exclusion from design phase	Top-down imposed decisions	Employee involvement from the outset
Limited digital competency	Inability to adapt to new technology	Tailored and gradual training programs

Bureaucratic organizational culture	Attachment to routines and procedures	Change agents + transformational leadership
Lack of trust in management	Previous negative experiences	Building credibility through demonstrated results

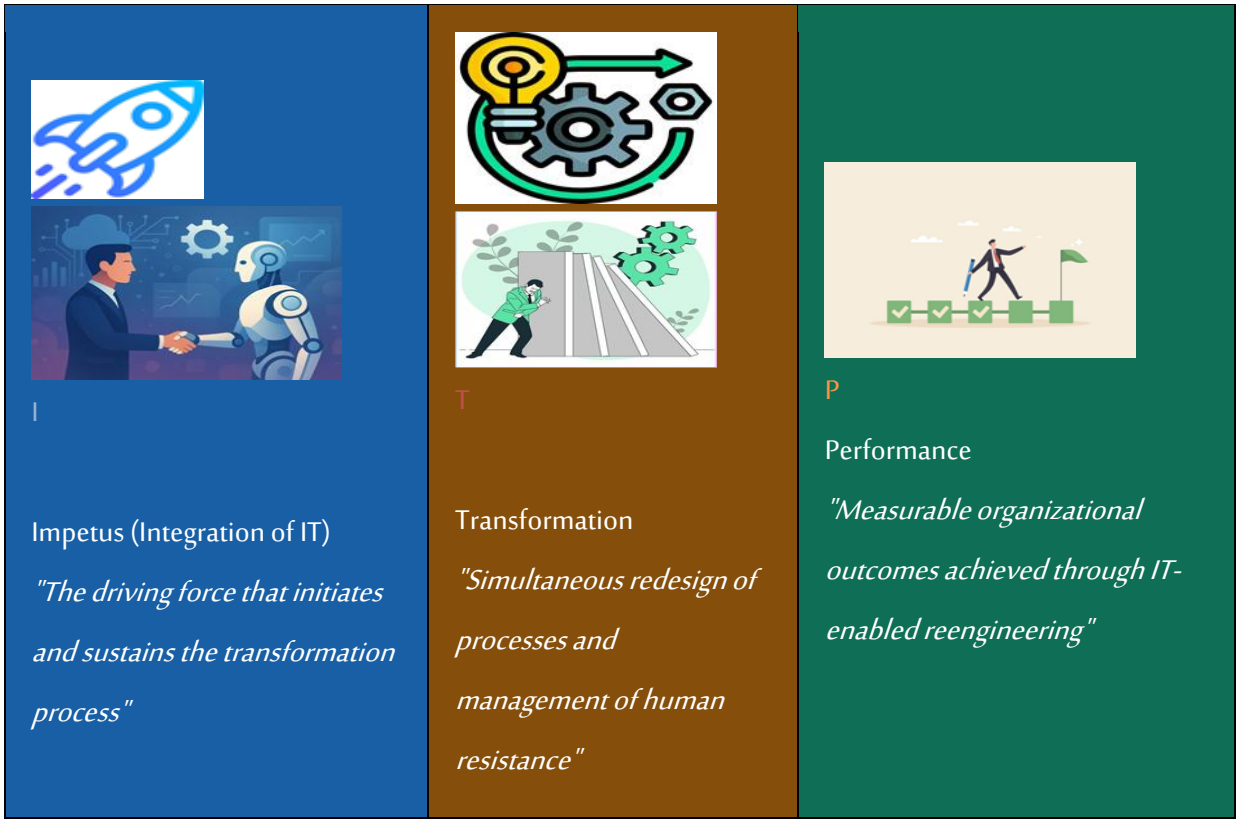
Source : Prepared by the authors based on the systematic literature review and synthesis of the literature on change resistance and Business Process Reengineerin

5.2.3. Dependent Variable Improved Organizational Performance:

Organizational performance is measured through five indicators — operational efficiency (cost reduction, shorter cycles), quality/effectiveness (better service delivery), organizational flexibility (faster adaptation to change), human capital development, and innovation/competitiveness as a long-term outcome of accumulated process improvements. Since change management in Algerian public institutions tends to be directive — reinforcing resistance — the ITP model instead adopts a participatory approach to boost acceptance and BPR success

The ITP Model Conceptual Diagram

From Impetus through Transformation to Performance



Enablement zone	Engagement & Results zone	
Artificial Intelligence (AI)	Management	Operational efficiency
Cloud Computing	Radical rethinking	Quality and effectiveness
Big Data Analytics	Process redesign	Organizational flexibility
Internet of Things (IoT)	Process automation	Cost reduction
Intelligent Automation	RESISTANCE MANAGEMENT	Innovation and competitiveness
	Participatory change	
	Change agents	
	BPR + Resistance — simultaneously integrated	

Source: Developed by the authors based on the systematic literature review and theoretical synthesis

5.3. The ITP Model: Detailed Explanation

Impetus · Transformation · Performance

The ITP Model is an original integrated conceptual framework explaining how modern IT orientations drive improved organizational performance through the simultaneous application of Business Process Reengineering (BPR) and Change Resistance Management. It is grounded in Lewin's (1951) staged change model and Hiatt's (2006) ADKAR framework, is grounded in the participatory paradigm and proposes a three-stage causal chain that is both sequential and simultaneous.

5.3.1. I IMPETUS (Integration of IT) | Modern IT Orientations

"The driving force or stimulus that initiates and sustains the organizational transformation process"

The word Impetus comes from Latin and means 'the force that sets something in motion'. In our model, Modern IT Orientations are not merely tools — they are the force that makes transformation both possible and necessary. The word Integration in parentheses specifies the mechanism: this variable is about strategically integrating existing technologies (AI, Cloud, Big Data, IoT, RPA) into organizational processes, not about creating new ones.

Artificial Intelligence (AI)

Creates pressure for process redesign: when AI performs in seconds what took a team a week, the existing process becomes structurally incompatible with the new capability making redesign inevitable.

Cloud Computing

Provides the flexible digital infrastructure on which all other technologies operate: without scalable, accessible infrastructure, AI, Big Data, IoT, and RPA cannot be deployed at scale.

Big Data Analytics

Transforms decision-making from opinion-based to evidence-based: every strategic decision can be grounded in comprehensive, real-time data rather than intuition or limited reporting.

Internet of Things (IoT)

Enables real-time process monitoring: IoT sensors continuously track machine health, inventory levels, delivery locations, and environmental conditions — providing a live operational view.

Intelligent Automation (RPA)

Frees human capital for creative and strategic tasks: automating repetitive cognitive work allows employees to focus on judgment, creativity, empathy, and strategy.

Dramatically accelerates process execution: bots work 24/7, processing thousands of transactions per hour without error.

5.3.2. T Transformation: BPR + Resistance Management

"The simultaneous redesign of organizational processes and management of human resistance to change"

Transformation is the engine converting technological Impetus into organizational Performance.

Its key theoretical innovation: BPR and Resistance Management are NOT sequential. Classical BPR literature (Hammer & Champy, 1993) treats resistance as something resolved before or after reengineering. This model's original contribution is that resistance emerges and evolves in parallel with reengineering stages, and must therefore be managed simultaneously and continuously throughout the transformation.

Treating resistance as an afterthought is the single most common cause of BPR failure.

Radical Rethinking (BPR)

Radical rethinking means going to the root of processes: not 'How can we do this better?' but 'Why are we doing this at all?'

Redesign (BPR)

Process redesign is the creative phase where a new process is designed from scratch based on what radical rethinking revealed. It is not improvement; it is reinvention.

Process Automation (BPR)

Process automation is the implementation phase where the redesigned process is executed using technology RPA, AI, and Cloud systems to perform tasks previously done manually.

5.3.3. Participatory Change (Resistance Management)

Participatory change involves employees directly in designing, testing, and implementing new processes transforming them from objects of change into authors of change. It is the single most effective resistance management mechanism.

Change Agents (Resistance Management)

Change agents are selected, respected employees at multiple organizational levels who serve as bridges between reengineering leadership and the broader workforce the human infrastructure of transformation.

5.3.4. P PERFORMANCE Improved Organizational Performance

"Measurable organizational outcomes achieved through IT-enabled Business Process Reengineering"

Performance is the outcome the entire model is designed to produce. It is multidimensional: five distinct dimensions together capture what organizational success means in the context of IT-enabled transformation. A critical feature of the ITP model is that Performance is measured not only in financial terms but also in operational, qualitative, structural, and strategic terms.

Operational Efficiency

Quality and Effectiveness

Organizational Flexibility.

Cost Reduction

Innovation and Competitiveness

5.4.4 The Two Zones of the ITP Model

Enablement Zone I (Impetus)

Engagement and Results Zone T + P (Transformation + Performance)

Covers both the Transformation and Performance.

5.5. Model Hypotheses for Future Testing

H1: Higher adoption of modern IT orientations in BPR projects is associated with higher resistance to change in the absence of effective change management.

H2: Application of change management models (Lewin, Kotter, ADKAR) significantly reduces resistance to change and improves BPR project success rates.

H3: Employee involvement in the BPR design phase reduces resistance and strengthens voluntary engagement in implementation.

H4: Organizations that integrate change management within BPR methodology achieve higher performance improvements than those relying exclusively on technical reengineering.

6. Chapter 5: Results and Discussion

6.1. The Integration Contribution

The model unifies the technical dimension (IT + BPR) and the human dimension (change management) within a single interactive framework, addressing Gap 1: neither dimension alone produces genuine transformation.

6.2. The Simultaneity Contribution

The model treats resistance to change as emerging within BPR stages themselves, rather than as a phase preceding or following reengineering — explaining why organizations can complete preparatory steps yet fail when resistance erupts during implementation.

6.3. The Algerian Contextual Contribution

The model foregrounds the specificities of Algerian public institutions — bureaucratic structures and limited participatory decision-making. The SWOT analysis (Table 3) confirms institutional trust and job security as top

resistance factors, justifying the ITP model's participatory approach (Gap 2). This is corroborated by the BDL illustration (Section 4.2): all four respondents perceived the change initiative as predominantly directive, with input confined to implementation rather than design.

6.4. Results and discussion

The results allow a preliminary, non-generalizable reading of the study's four hypotheses. H1 and H3 receive indirect support from the BDL illustration technology-related concerns and directive, low-participation practices align with expected resistance patterns — but neither was measured quantitatively. H2 is better described as contextually qualified than confirmed, since no organization in the illustration formally applied Lewin's, Kotter's, or ADKAR's models. H4 is supported theoretically through the Integration Contribution (5.1) but was not empirically tested.

None of the four hypotheses can be considered empirically validated: the four-respondent BDL illustration was designed to illustrate the model's logic, not to test it statistically. This — along with the model's conceptual status and the need for testing across a representative Algerian sample — remains the study's principal limitation.

7. Conclusion

This study confirms that resistance to change is not a peripheral issue but a structurally embedded barrier to BPR success in Algerian organizations, rooted in the interaction between people, organizations, and technology. Lewin's, Kotter's, and ADKAR's models offer complementary but only partially participatory insights, which motivates the integrated conceptual model proposed here. This model contributes to the literature in three ways: unifying technical and human variables within a single framework, treating resistance management and BPR as simultaneous rather than sequential processes, and adapting these insights to Algerian institutional specificities through the SWOT analysis.

From this, four recommendations emerge: organizations should embed resistance management into BPR planning from the outset and adopt a participatory approach that treats employees as partners rather than objects of change; researchers should test the model's hypotheses empirically across Algerian sectors; and policymakers should develop a national framework linking digital transformation with human engagement.

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