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LIMITS OF CHANGE-MANAGEMENT ACTIVITIES AS EVIDENCE OF PERFORMANCE DURING ORGANISATIONAL CHANGE IN IT

ОБМЕЖЕННЯ АКТИВНОСТЕЙ УПРАВЛІННЯ ЗМІНАМИ ЯК ДОКАЗУ РЕЗУЛЬТАТИВНОСТІ ПІД ЧАС ОРГАНІЗАЦІЙНИХ ЗМІН В ІТ

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Change models prescribe communication, participation, training, feedback, and adjustment. Completing these activities does not establish that employees maintained performance or that the intended result was achieved. This study tests whether employee-reported activities retain explanatory value for self-perceived performance after enabling conditions and paradox mindset enter a hierarchical model. The N=300 IT-context file yields 200 records meeting all coverage thresholds. Activities added ΔR^2=0.033 after controls, but their coefficient approached zero after leadership, culture, and technology support entered and stayed unsupported in every sensitivity variant. The enabling block added ΔR^2=0.093; perceived culture was the only supported focal coefficient in the primary full model, but its support varied across scoring and sample specifications. Paradox mindset added no supported value. Cross-sectional self-report, provisional measures, coverage selection, and non-probability sampling limit inference.

Keywords: organisational change, change-management activities, self-perceived performance, organisational culture, paradox mindset, paradoxical thinking, information technology, digital transformation.

Моделі управління організаційними змінами визначають комунікації, залучення, навчання, зворотний зв'язок і коригування плану. Виконання цих дій засвідчує проведення втручання, але не доводить, що працівники зберегли результативність або що організація досягла очікуваного результату. Дослідження перевіряє, чи зберігають відзвітовані активності управління змінами пояснювальну цінність щодо самооціненої індивідуальної результативності після врахування лідерства, організаційної культури, технологічної підтримки та парадоксального мислення. Опрацьований масив містить 300 відповідей в ІТ-контексті. Ієрархічні лінійні регресійні МНК-моделі з похибками НС3 використовують 200 записів, які відповідають усім порогам повноти даних; інші записи збережено для розрахунків із меншими вимогами до даних. Блоки вводили у такій послідовності: контрольні змінні, активності, сприятливі умови та парадоксальне мислення. Чутливість перевірено за альтернативними правилами оцінювання, складом контролів, типом зміни та впливовими спостереженнями. Після введення контрольних змінних активності додали ΔR^2=0.033 (β = 0,237; p = 0,0047). Після введення лідерства, культури та технологічної підтримки їхній коефіцієнт наблизився до нуля. Блок сприятливих умов додав ΔR^2=0.093 (тест Вальда НС3: p = 0,0031); у первинній моделі статистично значущим залишився лише коефіцієнт сприйнятої організаційної культури (β = 0,376; p = 0,0034) . Парадоксальне мислення не забезпечило статистично підтриманого додаткового внеску (β = 0,143; p = 0,2376). За правилом доступних відповідей жоден фокальний коефіцієнт не отримав статистичної підтримки, тому перевагу культури не можна тлумачити як універсальну. Результати обмежують використання звітів про активності як доказу результативності. Активності засвідчують проведення втручання; висновок про результат потребує окремих даних про результативність, прийняття, реалізацію вигід і збереження нової практики. Поперечний

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самооцінювальний дизайн, попередній статус вимірювання, відбір за повнотою та нерепрезентативна вибірка обмежують причинні й популяційні висновки.

Ключові слова: організаційні зміни, активності управління змінами, самооцінена результативність, організаційна культура, парадоксальне мислення, інформаційні технології, цифрова трансформація.

Statement of the problem. Change programmes make activity completion easy to report. Communication is delivered, owners are assigned, training is completed, feedback is collected, and progress is reviewed. These records document intervention delivery while work quality, productivity, learning, collaboration, and commitments remain untested during adoption.

Mobilisation, sponsorship, sequencing, and reinforcement organise the intervention [5; 11]. The evidential problem begins when completion is treated as performance: a programme may execute its plan while employees compensate through workarounds, extra effort, delayed commitments, or reduced attention to other work. In IT organisations, one initiative can also alter tools, routines, decision rights, roles, and delivery expectations [4; 13]. Leadership, culture, and technology support then shape whether employees can enact the intended practice.

A completed change process is not the same as an evidenced organisational change. This study tests one bounded implication of that distinction: whether an activity record retains explanatory value for self-perceived performance after enabling conditions and paradox mindset are considered. It does not evaluate entire change models, objective performance, or sustained organisational outcomes.

Analysis of recent research and publications. J. P. Kotter [5] explains how organisations create direction, mobilise participation, establish sponsorship, and reinforce new behaviour. J. Stouten, D. M. Rousseau, and D. De Cremer [11] qualify a universal sequence: implementation depends on connected organisational and individual conditions. S. Oreg, M. Vakola, and A. A. Armenakis [7] add the content of the change, the process through which it is introduced, contextual conditions, perceived benefit, and individual differences. U. Fasbender and F. H. Gerpott [2], together with Y. Zhu, L. Long, W. Liu, P. Shu, and S. Chen [14], similarly link change reactions to work design and uncertainty management. These studies support change-management activities as intervention components. They do not make their completion equivalent to evidence of achieved performance.

A. Hanelt, R. Bohnsack, D. Marz, and C. Antunes Marante [4], together with G. Vial [13], describe how technology-intensive change can reconfigure strategy, structure, work processes, capability, and culture at the same time. Availability, reliability, usability, and support determine whether the new practice is feasible. Within information-systems research, W. H. DeLone and E. R. McLean [1] distinguish system and service conditions from the benefits attributed to use. Technology support in the present study is an employee perception of those conditions, not an objective system-quality measure.

Leadership and culture represent a second layer of enabling conditions. The leadership items cover access, obstacle removal, message alignment, role modelling, recognition, and conflict handling. The culture items concern safety, learning, collaboration, disagreement, adaptability, ownership, and the coexistence of reliability with innovation. E. H. Schein [9] explains how such norms affect which behaviours organisational members regard as legitimate. B. Fyhn, H. Bang, T. Egeland, and V. Schei [3] show that a single respondent cannot establish an organisation-level culture or the within-team agreement required for a climate construct.

In IT change, continuity and renewal often have to be pursued together. W. K. Smith and M. W. Lewis [10] treat such demands as contradictory and interdependent. E. Miron-Spektor, A. Ingram, J. Keller, W. K. Smith, and M. W. Lewis [6] conceptualise paradox mindset as an individual's willingness and perceived ability to work through them. L. Tan, P. Hao, H. Gao, and A. Wojtczuk-Turek [12] link paradox-related leadership and mindset processes to adaptive performance. This relevance, however, does not ensure incremental explanatory value once the work environment and shared response tendencies are considered.

The outcome in this study is narrower than change success. Eight items capture self-reported work quality, commitments, productivity, learning, collaboration, ideas, stress handling, and overall performance during one change. They do not measure adoption, benefit realisation, objective productivity, organisational performance, or sustained practice. This boundary is necessary

because activities, enabling conditions, and outcomes occupy different evidence layers even when the same respondent reports all three.

Highlighting previously unresolved parts of the overall problem. The unresolved issue is the evidential status of activity reports when activities, enabling conditions, mindset, and performance enter the same model. A positive activity-performance correlation may represent the activities themselves, the conditions under which employees experienced them, or a generally positive evaluation of the change.

The scientific problem is whether activity reports provide distinct performance evidence after these alternatives are considered. Communication and adjustment overlap with experienced leadership; technology-support items may not apply to restructuring or portfolio change; and paradox mindset shares positive self-evaluative content with performance. Hierarchical modelling cannot identify causal order, but it can test whether an activity-centred interpretation survives the fuller specification. Sensitivity analysis then shows how scoring and coverage decisions affect that interpretation.

Formation of the objectives of the article (task statement). The purpose is to test whether reported change-management activities provide distinct evidence of self-perceived individual performance after enabling conditions and paradox mindset enter the observed IT-context model.

To what extent do reported activities retain explanatory value after leadership, organisational culture, technology support, and paradox mindset enter the model?

No preregistration or contemporaneous hypothesis record was found. The analysis is reported as theory-guided diagnostic modelling rather than as a confirmatory hypothesis test.

Summary of the main research material. Design, data, and respondent flow. The cross-sectional survey concerns one organisational change experienced during the preceding 18 months. The processed file contains 300 anonymous IT-context responses. The common regression sample includes the 200 records meeting every control and construct-coverage requirement; analyses with fewer requirements retain additional records.

Sample composition. Individual contributors formed 71.7% of the file; managers 18.3%, change owners 7.0%, and executives 3.0%. Ukraine accounted for 38.0%; the remaining respondents came from the EU, USA, UK, and other regions. Outsourcing/services organisations formed 55.0%, product companies 30.0%, and hybrid organisations 15.0%. The leading change types were AI adoption (27.0%), process or delivery-model change (22.0%), and technology migration (21.0%). The file is not treated as representative of IT employees.

Measures and claim boundaries. All 48 statements used a five-point agreement scale with an N/A option; none was reverse-worded. Six working composites cover change-management activities (OC, 10 items), perceived leadership (LD, 7), perceived organisational culture (CL, 7), technology support (TS, 7), paradox mindset (PM, 9), and self-perceived individual performance during the change (PF, 8). These respondent-level measures do not establish verified activity completion, organisation-level culture [3; 9], objective system quality [1] or performance, initiative success, or sustained adaptation.

No retained record establishes a published source, translation, or formal adaptation procedure for OC, LD, CL, TS, or PF, so they are provisionally classified as author-developed. PM is conceptually aligned with paradox-mindset research [6], but it does not reproduce the original nine-item measure. All six composites remain provisional.

Scoring and missing data. N/A and blank responses were treated as missing. The primary rule required at least 80% valid items: eight of ten OC, six of seven LD/CL/TS, eight of nine PM, and seven of eight PF items. Scores are means after the threshold is met; available-item and complete-construct rules are sensitivities.

Applying these requirements yielded a common regression sample of 200 records. TS coverage accounts for 63 exclusions, CL for 23, LD for 21, OC for 9, and PM for 1, with overlap. TS missingness ranged from about 7% for technology migration and AI adoption to 39.7% for restructuring and 53.4% for product-strategy change, consistent with structural inapplicability rather than random loss.

Analytical strategy. The measurement audit covered distributions, bootstrap alpha, item relations, construct correlations, HTMT-type ratios, and exploratory components. Parallel analysis used Spearman correlations, median imputation, 300 permutations, and a six-component varimax solution. Measurement results are interpreted as exploratory evidence.

Hierarchical OLS used one common $n = 200$ sample. Continuous composites entered as mean scores on their original 1-5 scales; categorical controls were dummy-coded, and

Table 1

Common-model sample compared with the remaining records

Characteristic	Included n=200	Remaining n=100	Difference
Involvement, mean	2.510	2.050	0.398 SMD
OC, mean among valid cases	2.791	2.423	0.490 SMD
CL, mean among valid cases	3.384	3.147	0.525 SMD
PF, mean	3.929	3.841	0.299 SMD
AI adoption / automation	33.0%	15.0%	+18.0 pp
Organisational restructuring	7.0%	22.0%	-15.0 pp
Product strategy / portfolio	3.5%	20.0%	-16.5 pp

Notes: SMD denotes the standardised mean difference; pp denotes percentage points.

Source: author's calculations based on the study data

standardised coefficients were reported for focal predictors. M0 included intensity, involvement, role, and change type; OC entered at M1, LD/CL/TS at M2, and PM at M3. HC3 errors and block Wald tests support inference. Sensitivities varied scoring, controls, change subset, influential cases, and TS inclusion.

Measurement results. Valid N ranged from 237 for TS to 300 for PF. Complete-case alpha was 0.910 for OC, 0.919 for LD, 0.786 for CL, 0.819 for TS, 0.944 for PM, and 0.710 for PF. PM may be redundant; PF has restricted variance (M = 3.900, SD = 0.295. Parallel analysis retained six components, but only 36 of 48 items loaded primarily on the intended factor and 13 had secondary loadings of at least 0.30. PM9 loaded primarily with PF. The measures show partial separation, not confirmed validity.

Zero-order associations. PF correlated with OC at $r = 0.276, 95\%\ CI\ [0.167, 0.379]$, and with PM at $r = 0.329, 95\%\ CI\ [0.224, 0.426]$. CL had the largest zero-order PF association, $r = 0.372, 95\%\ CI\ [0.265, 0.469]$. OC and LD correlated at $r = 0.719$, and pairwise N ranged from 217 to 299. Same-session self-report may partly explain these associations [8].

Hierarchical models. OC added 3.3 percentage points of explained variance after controls. Its M1 coefficient was $b = 0.090$, $95\%\ CI\ [0.028, 0.151]$, standardised $\beta = 0.237$; after enabling conditions entered, it fell to M3 $\beta = -0.011, 95\%\ CI\ [-0.094, 0.071]$, $\beta = -0.030$. Adding LD, CL, and TS increased R^2 by 9.3 percentage points (HC3 Wald $p = 0.0031$). Only CL retained a supported M3 coefficient, $\beta = 0.241, 95\%\ CI\ [0.081, 0.402]$, $\beta = 0.376$.

PM added no supported explanatory value: $\Delta R^2 = 0.011, b = 0.062, 95\%\ CI$ [-0.041, 0.166], $\beta = 0.143$, $p = 0.2376$. The maximum VIF was 3.97; the Breusch-Pagan test gave $p = 0.043$, residual normality was rejected, 19 observations exceeded Cook's $D > 4/N$, and four absolute studentised residuals exceeded 3. HC3 inference does not correct measurement or sampling limitations.

Sensitivity and stability. OC lost support in every fuller specification. Available-item scoring (N = 291) left no focal coefficient supported; complete-construct scoring reduced N to 96 and left CL at $p = 0.0497$. Excluding Cook's-D cases made CL and TS statistically supported ($CL\ p < 0.001$; $TS\ p = 0.03$), whereas TS remained null in the AI/technology subset. Omitting TS expanded N to 256 but left all focal coefficients unsupported.

The primary culture estimate is therefore conditional on scoring and sample. The data also do not support a general "technology does not matter" conclusion.

Discussion of results. The attenuation of the activity coefficient is an evidential result, not a verdict on activities: the same report that carried explanatory value on its own carried none once the conditions under which employees experienced the change entered the model. The study cannot determine whether these conditions mediate, confound, or share measurement content with activities. The activity report provides no distinct performance evidence in the full model.

This result does not license abandoning activities [5; 11]: the full model estimates only their remaining direct association after correlated conditions enter. The OC-LD correlation of 0.719 makes this distinction material. Only perceived culture retained support, although the estimate may reflect a wider positive evaluation.

Coverage selection further limits interpretation. Because technology-support items were often inapplicable, the primary model

Table 2

Hierarchical OLS models of self-perceived individual performance

Predictor / fit	M0	M1	M2	M3
Change intensity	-0.014 (0.042), p = 0.7359	0.037 (0.043), p = 0.3887	0.061 (0.041), p = 0.1359	0.068 (0.040), p = 0.0919
Involvement	0.119 (0.028), p < 0.0001	0.083 (0.031), p = 0.0073	0.048 (0.033), p = 0.1477	0.042 (0.033), p = 0.1975
OC	-	0.090 (0.031), p = 0.0047	0.002 (0.040), p = 0.9613	-0.011 (0.042), p = 0.7860
LD	-	-	-0.016 (0.036), p = 0.6683	-0.016 (0.036), p = 0.6551
CL	-	-	0.272 (0.077), p = 0.0005	0.241 (0.081), p = 0.0034
TS	-	-	0.032 (0.029), p = 0.2827	0.032 (0.031), p = 0.3025
PM	-	-	-	0.062 (0.052), p = 0.2376
R^2	0.226	0.259	0.352	0.363
Adjusted R^2	0.181	0.212	0.299	0.307
ΔR^2	-	0.033	0.093	0.011
HC3 block Wald p	-	0.0047	0.0031	0.2376

Notes: n = 200 in every model. Entries are unstandardised coefficients with HC3 standard errors in parentheses. All models also include role group and change type; coefficients are omitted from the compact table. Reference categories are individual contributor and technology/platform migration.

Source: author's calculations based on the study data

describes respondents able to assess nearly all six domains rather than the full N = 300 file.

The article tests an evidence problem in change diagnosis. Coefficient attenuation is conditional on block order and does not establish a causal mechanism.

PM correlated with performance but added no supported value after activities and enabling conditions. This does not refute paradox theory [6; 10; 12]. The items are a conceptual adaptation, PM9 loads with PF, and both constructs contain favourable self-assessment. PF also has restricted variance (SD = 0.295) on a five-point scale) and moderate internal consistency (α = 0.710), which limits statistical sensitivity. The unsupported PM and TS coefficients do not establish that their underlying effects are absent; the same measurement limits also affect the precision of the CL estimate. A distinct mechanism requires validated measures, temporal separation, and outcomes without repeated productivity wording.

Change diagnosis should separate intervention records, enabling records, and independent outcome evidence. Technology-support questions should be conditional on the initiative. The survey cannot replace operational data, supervisor assessment, adoption measures, or benefit evidence.

Common method remains the broadest rival explanation because all focal variables use same-session, positively worded self-reports [8]. Reverse direction is also plausible. The measures are provisional, several items cross-load, PF has restricted variance, and TS coverage depends on change type. Omitted conditions include duration, stage, workload, job family, technical complexity, and objective disruption. The non-probability, coverage-selected sample supports neither population estimates nor causal claims.

Conclusions. Reported activities added explanatory value after controls but provided no distinct performance evidence once enabling conditions entered; OC remained unsupported in every fuller sensitivity specification. Perceived culture was the only supported focal coefficient in the primary full model, but its support varied

across scoring and sample specifications. Paradox mindset added no supported value. These estimates describe a coverage-selected sample and support no causal claim.

Activity dashboards document intervention delivery. Evidence of achieved change requires independent outcome data. The comparison between the common-model 200 and the remaining 100 also shows why one universal instrument can narrow the sample when a domain does not apply to every initiative.

Further research should use validated measures, longitudinal separation, multiple respondents per organisation, and objective or supervisor-rated outcomes. Purpose coherence, current-emerging identity integration, and sustained adaptation require direct operationalisation rather than inference from the present culture composite.

Ethics statement. Participation was voluntary, informed consent was obtained, and the analytical data were anonymised.

Data availability. The processed, anonymised dataset supporting the reported results is available from the corresponding author on reasonable request.

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