



Doing More with Less? Minus Growth, Workforce Capacity, Technology Support, and Communication Effectiveness at the Directorate General of Customs and Excise

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Kata kunci:	Abstract
minus growth; workforce capacity; technological support; communication effectiveness; public sector; government communication DJBC.	The pressure to “do more with fewer resources” has become an important feature of public-sector organizational reform, yet its implications for organizational communication capacity remain insufficiently understood. This study examined the relationships among perceived minus growth, workforce capacity, technological support, and communication effectiveness at the Directorate General of Customs and Excise. Cross-sectional data were collected from 166 respondents and analyzed using descriptive statistics, reliability analysis, exploratory factor analysis (EFA), Pearson correlation analysis, ordinary least squares (OLS) regression with HC3 heteroskedasticity-robust standard errors, and moderation analysis. The results showed that perceived minus growth was strongly and negatively associated with workforce capacity ($\beta = -0.690$, $p < .001$; $R^2 = .477$). Workforce capacity was positively correlated with communication effectiveness at the bivariate level ($r = .226$, $p = .003$), but its unique association was not statistically significant after accounting for technological support ($\beta = .039$, $p = .615$). In contrast, technological support demonstrated a positive and statistically significant unique association with communication effectiveness ($\beta = .406$, $p < .001$). The interaction between workforce capacity and technological support was not statistically significant ($p = .209$), providing no evidence that technological support moderated the relationship between workforce capacity and communication effectiveness. Descriptively, workforce capacity was relatively low ($M = 2.22/5$), whereas perceived communication effectiveness remained high ($M = 4.14/5$), indicating a performance–capacity puzzle. This study contributes to the literature by distinguishing perceived communication effectiveness from the workforce capacity supporting it and by positioning technology as a complementary enabling resource rather than as a demonstrated substitute for workforce capacity.

INTRODUCTION

Public organizations frequently operate under two competing pressures. On the one hand, citizens, government leaders, the media, and other stakeholders expect services to be faster, more transparent, responsive, and consistent. On the other hand, public organizations are required to control costs, manage workforce size, and improve productivity (Levine, 1978). This tension is often characterized as “doing more with less.” Esteve et al. (2017) showed that pressure to accomplish more with fewer resources is not merely an efficiency issue but also has implications for employees’ work experiences. Boedker et al. (2017) further cautioned that maintaining

productivity under austerity may conceal the erosion of human and intellectual capital when organizations focus primarily on short-term outputs.

The downsizing literature presents mixed findings. Workforce reductions may generate efficiency gains when accompanied by organizational restructuring, process simplification, and adjustments to working methods, but they may also contribute to work overload, knowledge loss, declining morale, and deterioration in organizational capacity (Cameron, 1994; Cascio, 1993; Datta et al., 2010; Gandolfi & Hansson, 2011). Therefore, the relevant theoretical question is not whether workforce restraint is inherently “good” or “bad,” but rather through which mechanisms workforce constraints are associated with functional capacity and which organizational resources enable functions to remain effective under such conditions.

Government communication provides a particularly relevant context for examining these questions. Communication effectiveness is not determined solely by the volume of messages produced; it also encompasses response accuracy, information consistency, audience reach, issue-monitoring capacity, and the ability to manage sensitive communications. Digitalization has expanded communication channels while simultaneously accelerating stakeholder expectations. The government communication literature indicates that public communication increasingly operates within an interactive, fragmented, and rapidly evolving information environment (Canel & Sanders, 2013; Kavanaugh et al., 2012; Liu & Horsley, 2007; Meijer & Torenvlied, 2016; Mergel, 2013). Consequently, the communication function provides an important context for examining how public organizations maintain service effectiveness when workforce capacity is constrained.

Within this context, technology is frequently proposed as a potential response to workforce constraints (Brynjolfsson et al., 1994). However, the literature does not support treating technology as a straightforward substitute for human resources. Pinsonneault and Kraemer (2002), in a longitudinal study of two municipal governments, showed that information technology facilitated downsizing when integrated with job redesign, structural redesign, and workforce redeployment. Céspedes-Lorente et al. (2019) also identified a role for technology in the relationship between downsizing and organizational performance, although their research context and outcomes differed from those of public-sector communication. A mechanism gap therefore remains: technological support may function as an organizational resource (Bharadwaj, 2000; Wade & Hulland, 2004) associated with communication effectiveness, but whether it alters the relationship between workforce capacity and communication effectiveness remains unclear.

This study addresses three research gaps. First, the literature on “doing more with less” and organizational downsizing has more frequently examined employee attitudes or aggregate organizational performance than perceived functional capacity as an intermediate organizational condition between workforce policies and functional outcomes. Second, the digital government literature (Dunleavy et al., 2006; Gil-Garcia et al., 2018) emphasizes technological capabilities but does not consistently examine whether technological support complements workforce capacity or buffers the consequences of limited human resources. Third, government communication research extensively addresses communication channels, strategies, and relationships with the public but rarely integrates these issues with workforce capacity. This study brings these three streams of literature together within a single empirical model.

The contribution of this study is not to claim that minus growth causes a decline in communication effectiveness. The cross-sectional, self-reported nature of the data does not support such causal inference. Rather, the study examines a more nuanced configuration of relationships among perceived minus growth, workforce capacity, technological support, and communication

effectiveness. Specifically, it investigates whether perceived minus growth is associated with workforce capacity, whether workforce capacity and technological support are associated with communication effectiveness, and whether technological support moderates the relationship between workforce capacity and communication effectiveness. This configuration provides a basis for examining what this study conceptualizes as the performance–capacity puzzle: a condition in which relatively high perceived functional effectiveness coexists with comparatively limited perceived workforce capacity. The novelty of the study therefore lies in integrating three streams of literature—“doing more with less,” digital government, and government communication—within a single empirical framework and in using the performance–capacity puzzle to distinguish perceived functional effectiveness from the organizational capacity supporting it.

Accordingly, this study addresses four research questions: (RQ1) How is perceived minus growth related to perceived workforce capacity within the Directorate General of Customs and Excise (DGCE) communication function? (RQ2) How are workforce capacity and technological support related to perceived communication effectiveness? (RQ3) Does technological support moderate the relationship between workforce capacity and communication effectiveness? and (RQ4) Which operational constraints and forms of support are most frequently reported by respondents in performing communication functions? The study aims to examine these relationships quantitatively, assess the measurement quality of the constructs, and translate the observed empirical patterns into policy implications while remaining within the inferential limitations of the data. Theoretically, the study seeks to extend the literature on public-sector organizational capacity, digital government, and government communication. Practically, it seeks to provide an evidence base for communication-capacity mapping that combines perception-based survey findings with objective workforce indicators, such as staffing levels and full-time equivalent (FTE) measures, before decisions regarding staffing allocation or technological investment are made.

METHOD

Research Design

This study employed a survey-based cross-sectional quantitative design. The individual respondent served as the unit of analysis; therefore, all statistical relationships were interpreted at the level of individual perceptions. Given the cross-sectional design, the analysis did not support causal inference, assessment of longitudinal changes, or estimation of objective staffing requirements across work units.

Context and Samples

The analytical dataset consisted of 166 valid responses. Based on the typology of the task force, 121 respondents came from KPPBC, 31 from the Regional Office, 8 from the KPU, 3 from BLBC, and 3 from PSO. Based on the number of public relations employees reported: 61 respondents were in units with 1–2 employees, 74 in 3–5 employees, and 31 in more than 5 employees. The regional distribution includes Java (64), Sumatra (53), Kalimantan (37), Sulawesi (9), and Bali and Nusa Tenggara (3). This information is used to describe the composition of the sample, not to claim the proportional representativeness of the entire DJBC population.

Instruments and Operationalization

The four main constructs are measured on a Likert scale of 1–5. Minus Growth (MG) consists of five items regarding filling/replacement restrictions, HR flexibility, and reliance on additional assignments. Workforce Capacity (WC) consists of five items. WC1 is in a positive direction, while WC2–WC5 is in a negative direction and is reversed with a transformation of 6 –

the original score. Technological Support (TS) initially has six items, while Communication Effectiveness (CE) has five items. The composite score is calculated as the mean of the final item so that it remains at metrics 1–5.

Reverse Coding dan Item Purification

Reverse coding WC is a substantive step, not a cosmetic. After transformation, a higher WC score always means better perceived capacity. In TS, item TS6_R shows a corrected item–total correlation of 0.116 and an EFA loading of about 0.057, much weaker than the other items. TS6 is therefore excluded from the final construct and TS is calculated from TS1–TS5. This decision is reportedly transparent as a purification item; it is not used to "maximize" the hypothetical result.

Analysis Strategy

The analysis was carried out sequentially: examination of data structure and coding; internal reliability; exploratory factor analysis for evidence of measurement structure; descriptive statistics; Pearson correlation; OLS regression with HC3 robust standard errors; and moderation analysis. For H4, WC and TS were mean-centered before forming the interaction term WC×TS. Multicollinearity was examined with VIF. Interpretation prioritized effect size, confidence interval, and inter-model patterns, rather than p-values separately.

Methodological Limits

Since all major constructs are self-reports at a single point in time, common method variance remains a design risk (Podsakoff et al., 2003). This study does not claim that a single statistical test can "remove" such risks. In addition, the EFA is treated as exploratory evidence, not final proof of construct validity. Subsequent validation should use independent samples and CFAs. Procedural information such as recruitment mechanisms, fielding periods, consent, and ethical status needs to be ensured by the author at the pre-submission stage if they are not recorded in the available research materials.

Table 1. Respondent Profile (N = 166)

Dimensions	Category	n	%
Typology	KPPBC	121	72,9
Typology	Kanwil	31	18,7
Typology	KPU	8	4,8
Typology	BLBC	3	1,8
Typology	PSO	3	1,8
Public relations officer	1–2	61	36,7
Public relations officer	3–5	74	44,6
Public relations officer	>5	31	18,7
Region	Jawa	64	38,6
Region	Sumatra	53	31,9
Region	Kalimantan	37	22,3
Region	Sulawesi	9	5,4
Region	Bali & Nusa Tenggara	3	1,8

Table 2. Construct, Item Direction, and Scoring Decision

Construct	Item final	Arah/scoring	High score interpretation
Minus Growth	MG1–MG5	All according to the direction of the item	Stronger constraint minus growth
Workforce Capacity	WC1; WC2_R–WC5_R	WC2–WC5 = 6 – original score	Perceived capacity better
Technological Support	TS1–TS5	TS6_R dieliminasi	Stronger technology support

Communication Effectiveness	CE1–CE5	All according to the direction of the item	Higher communication effectiveness
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RESULTS AND DISCUSSION

Measurement Quality and Reliability

Internal reliability was at a good level for all final constructs: MG $\alpha = 0.918$; WC $\alpha = 0.817$; TS $\alpha = 0.815$; and CE $\alpha = 0.907$. Corrected item–total MG correlations were at 0.713–0.858; CE at 0.710–0.835. In WC, WC1 was the weakest item (0.374), but it was retained because it represented a conceptually important positive side of adequacy. The WC alpha did increase to 0.858 if WC1 was removed, but alpha optimization alone is not a sufficient reason to reduce the construct domain.

TS6_R is a different case. Corrected item–total correlation of 0.116 and a very small loading factor indicate that the item does not move along with the TS construct as other items. After TS6 is issued, the reliability of the final TS becomes 0.815. Final verdict: WC1 and TS5 are retained; TS6 is issued.

Table 3. Reliability and Corrected Items–Total Correlation

Construct	α final	Corrected item–total correlation	Notes
MG	.918	MG1 .766; MG2 .806; MG3 .826; MG4 .713; MG5 .858	Excellent consistency
WC	.817	WC1 .374; WC2_R .627; WC3_R .658; WC4_R .693; WC5_R .760	WC1 weaker, conceptually maintained
TS	.815	TS1 .663; TS2 .721; TS3 .569; TS4 .541; TS5 .412; TS6_R .116	TS6 released
EC	.907	EC1 .710; EC2 .781; EC3 .775; EC4 .731; EC5 .835	Excellent consistency

Exploratory Factor Analysis

The feasibility of the correlation matrix for the EFA is supported by KMO = 0.887 and Bartlett's test $\chi^2(210) = 2169.22$; $p < 0.001$. In general, the MG and CE items show strong loading on the expected factor. WC2_R–WC5_R also show a clearer pattern than WC1. In TS, TS1 and TS2 are very strong; TS4 has cross-loading of about 0.342 at CE; TS5 is more moderate; and TS6_R practically has no substantive loading. This pattern supports the measurement structure in general, but also indicates areas for improvement in subsequent studies.

Table 4. Summary of EFA Loading

Construct	Item	Main loading	Notes
MG	MG1–MG5	.662; .844; .864; .847; .791	Strong and consistent patterns
WC	WC1; WC2_R–WC5_R	.216; .722; .489; .537; .855	Weak WC1
TS	TS1–TS5	.781; .902; .597; .487; .380	TS4 cross-loading .342 on CE; Moderate TS5
TS	TS6_R	.057	Excluded from the final construct

EC	CE1–CE5	.741; .852; .824; .759; .889	Strong and consistent patterns
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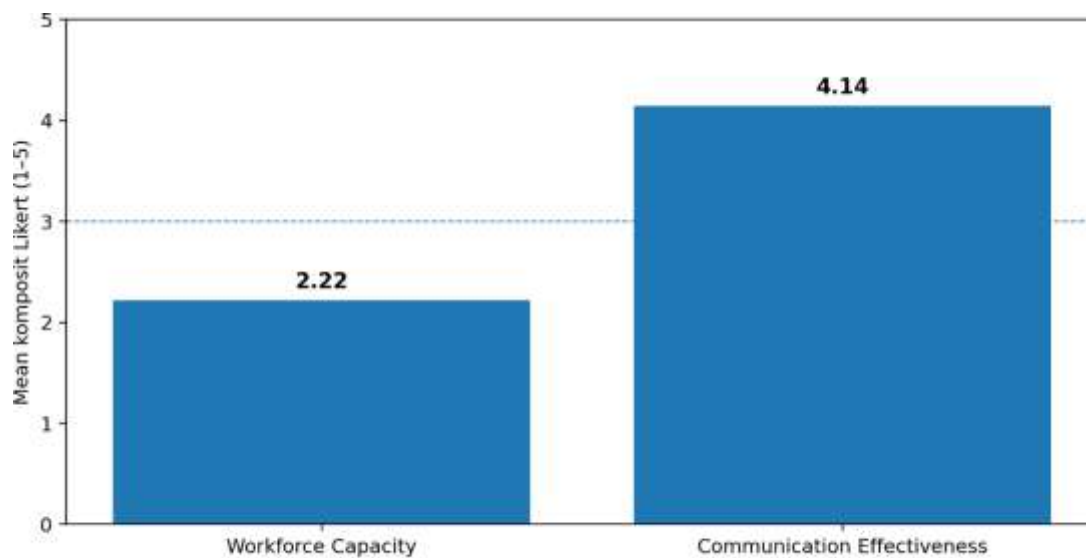
Descriptive Statistics: The Emergence of the Performance–Capacity Puzzle

Descriptive shows the most important contrast in the study. MG is at $M = 3.943$ ($SD = 0.994$), indicating that constraint minus growth is quite strongly felt. WC is at $M = 2.217$ ($SD = 0.844$). The final TS is at $M = 3.352$ ($SD = 0.862$), while the CE is at $M = 4.143$ ($SD = 0.667$). Scores of 2.22 and 4.14 are Likert composite means; neither are 44.4% capacity and 82.8% effectiveness.

The contrast of the WC–CE does not prove that performance is "unsustainable", because sustainability is not measured. But it does raise a theoretical question: how can perceived high effectiveness coexist with perceived low labor capacity? This question is at the center of discussion, not causal conclusions.

Table 5. Descriptive Statistics of Final Constructs

Construct	M	SD	Theoretical range	Meaning of high score
MG	3.943	.994	1–5	Stronger constraint minus growth
WC	2.217	.844	1–5	Better capacity
TS	3.352	.862	1–5	Stronger technology support
EC	4.143	.667	1–5	Higher effectiveness



Catatan: skor adalah mean komposit Likert, bukan persentase kapasitas atau efektivitas.

Gambar 1. Performance–Capacity Puzzle

Inter-Construct Correlation

MG correlated strongly negatively with WC ($r = -0.690$; $p < 0.001$) and moderate negative with TS ($r = -0.313$; $p < 0.001$), but not significantly with CE ($r = -0.062$; $p = 0.428$). WC correlated positively with TS ($r = 0.463$; $p < 0.001$) and CE ($r = 0.226$; $p = 0.003$). TS had the strongest positive correlation with CE ($r = 0.424$; $p < 0.001$).

Table 6. Pearson Correlation Matrix

Variabel	1	2	3	4
1. MG	1			
2. WC	-.690***	1		
3. TS	-.313***	.463***	1	
4. EC	-.062	.226**	.424***	1

Note. $p < .01$; * $p < .001$. MG–CE $p = .428$; WC–CE $p = .00338$.

H1 Testing: Minus Growth and Workforce Capacity

The WC ~ MG model yielded $B = -0.5863$, HC3 robust SE = 0.055, standardized $\beta = -0.690$, 95% CI $[-0.695; -0.478]$, $p < 0.001$, with $R^2 = 0.477$ (adjusted $R^2 = 0.473$). This means that respondents who reported stronger constraint minus growth tended to report lower workforce capacity. The magnitude of R^2 indicates a substantive relationship at the level of individual perception. Due to cross-sectional design, this result should not be written as "minus growth causes a 47.7% decrease in capacity". H1 is supported.

H2 and H3 Testing: Workforce Capacity, Technology, and Communication Effectiveness

When WC and TS were put together to explain CE, the model yielded $R^2 = 0.181$ and adjusted $R^2 = 0.171$. WC had $B = 0.0305$, robust SE = 0.061, $\beta = 0.039$, 95% CI $[-0.088; 0.149]$, $p = 0.615$. Thus, once TS was taken into account, WC's unique contribution to CE was insignificant. H2 was not supported in multivariate models, although the WC–CE bivariable correlation was significant.

TS shows $B = 0.3136$, robust SE = 0.070, $\beta = 0.406$, 95% CI $[0.177; 0.451]$, $p < 0.001$. H3 is supported. VIF is about 1.27 for both predictors, so there is no indication of multicollinearity interfering with model interpretation. These results should be read as unique associations, not as evidence that technology is "more important" than humans.

H4 Testing: Technological Support Moderation

The moderation model used mean-centered WC and TS as well as the interaction term WC×TS. The interaction yielded $B = 0.0773$, robust SE about 0.062, 95% CI $[-0.043; 0.198]$, $p = 0.209$. The model had $R^2 = 0.190$ and adjusted $R^2 = 0.175$; additional variation related to the interaction was about $\Delta R^2 = 0.009$. F-change was about 1.806 ($p \approx 0.181$). VIF WC = 1.37; TS = 1.28; interaction = 1.09. H4 is not supported.

The insignificance of the interaction is a substantive finding. It limits the narrative that technology can "replace" the limitations of the workforce. TS still has a strong positive main effect, but the data do not show that the WC–CE relationship becomes convincingly different at different levels of TS. In other words, technology enables effectiveness, but it is not empirically demonstrated here as a workforce-capacity buffer.

Table 7. Summary of Regression and Hypothesis Testing

Hypothesis/ Model	B	HC3 SE	b	95% CI	p	R ²	Verdict
H1: MG → WC	-.5863	.055	-.690	$[-.695, -.478]$	<.001	.477	Supported
H2: WC → CE TS	.0305	.061	.039	$[-.088, .149]$	.615	.181*	Not supported

H3: TS → CE WC	.3136	.070	.406	[.177, .451]	<.001	.181*	Supported
H4: WC×TS → EC	.0773	≈.062	—	[-.043, .198]	.209	.190	Not supported

Note. *R² .181 is the R² model CE ~ WC + TS. Moderation model: adjusted R² = .175; ΔR² ≈ .009.

Open-ended Question Findings: Operational Constraints and Support

Open-ended questions/constraint options showed that HR was chosen by 150 out of 166 respondents (90.4%), followed by budget 139 (83.7%), technology 116 (69.9%), and procedure 27 (16.3%). This pattern is consistent with the quantitative finding that HR capacity is a real pressure point in respondents' perceptions. However, the frequency of constraints cannot be directly translated into the need for additional employees because respondents can choose several categories and objective workload measurement is not available in this survey.

The most frequently cited needs include video editing software (135), photo editing software (115), professional cameras (95), mobile phones/devices (95), drones (77), and Zoom Meeting (33). Other responses mention live chat, studio, Canva Premium, PR certification, gimbal, premium AI, WhatsApp Official, microphone, lighting, vMix, PC/laptop editing, AI tools, Google Drive, and crisis communication guidance/training. This list shows that technological support in practice has hardware, software, platform, and capability support components.

Table 8. Respondents Reported Obstacles

Constraints	n	% respond
SDM	150	90,4
Budget	139	83,7
Technology	116	69,9
Procedure	27	16,3

RQ Mapping to Findings

Table 9. Mapping RQ to Findings

Research Question	Key findings	Empirical answer
RQ1	MG–WC $r = -.690$; $\beta = -.690$; $p < .001$	Constraint minus growth is strongly associated with lower perceived capacity.
RQ2	WC–CE $r = .226$; WC $\beta = .039$ ns; TS $\beta = .406^{***}$	CE-related WCs are bivariably related, but TS has significant unique associations in shared models.
RQ3	WC×TS $p = .209$	There is no evidence of moderation; TS is not a buffer that Proven.
RQ4	HR 90.4%; budget 83.7%; technology 69.9%	The constraints are multi-resource; the technological needs are many related to production and devices work.

Findings-Based Interpretive Model

The initial model assumes a simple chain: minus growth suppresses workforce capacity; workforce capacity increases communication effectiveness; technology increases effectiveness

and moderates the WC–CE relationship. The data support only part of the structure. Therefore, the final interpretive model does not retain all the arrows as if supported. The relationship between MG→WC and TS→CE is the strongest pathway; WC→CE has no significant unique contribution; WC×TS moderation is not supported.

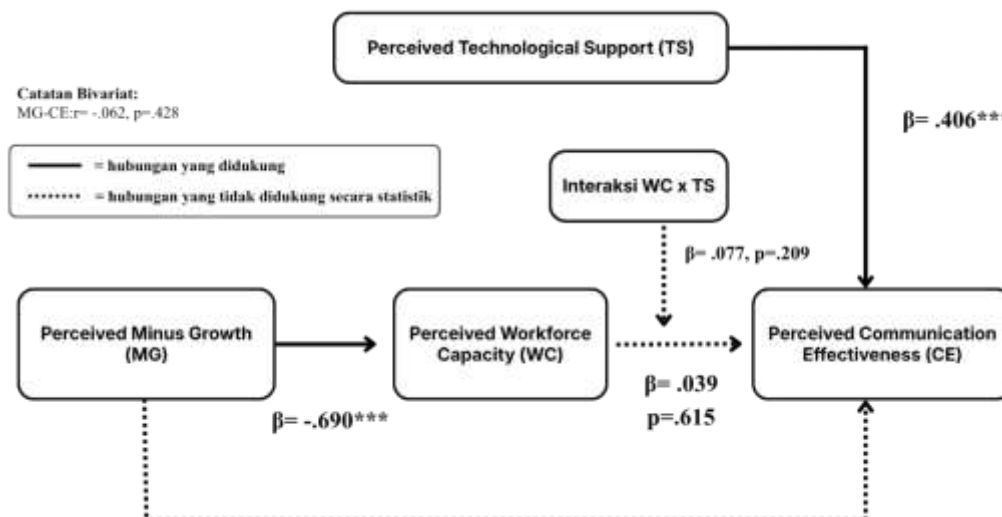


Figure 2. Interpretive Model Based on Empirical Results

This model is not intended as a new causal theory. It is a representation of evidence patterns that can be retested longitudinally or multilevelly. The main value lies in the separation between the capacity pathway and the effectiveness pathway: workforce restraint is most evident in capacity, while the variation in communication effectiveness in this model is most clearly related to technological support.

Minus Growth Seems Closer to Capacity than to Effectiveness

The strongest finding was the MG–WC association. This is consistent with the logic of resource constraint (Bakker & Demerouti, 2007; Demerouti et al., 2001): when the flexibility of filling and replacing positions is reduced, respondents are more likely to experience duplication, workload pressure, and difficulty maintaining proactive activities. These results expand the doing more with less literature by showing that before the output of the function decreases, constraints can first appear on perceived capacity. Esteve et al. (2017) placed consequences on employee attitudes; this study shows capacity adequacy as another relevant proximal outcome.

Why Does CE Stay High? Reading the Performance–Capacity Puzzle

The combination of WC 2.22 and CE 4.14 should not be simplified into the paradox of "few employees but great performance". First, both are perceptions, not objective workloads and objective performance. Second, output can be maintained through prioritization, intensification, employee experience, informal assistance, technology, or activity delays that are not captured by the CE scale. Third, CE measures the quality of perceived functions at the moment, while WC measures adequacy/pressure. Therefore, the two constructs can move differently. Boedker et al. (2017) are useful as a warning that productivity is not always synonymous with the health of the resource base, but this study does not measure "starvation" directly.

H2 Not Supported: Doesn't Mean Humans Aren't Important

The WC–CE correlation is significant but the WC coefficient becomes insignificant when TS is entered. Statistically, some of the variations that previously appeared to be related to WC overlap with TS because WC and TS were correlated 0.463. Substantively, units with better capacity also tended to report better technology support. After the overlap was separated, TS carried a greater unique explanatory signal. However, workforce capacity remains an important outcome of minus growth and HR constraints are the most commonly reported. Therefore, the conclusion "HR is not important" contradicts the overall evidence.

Technology as an Enabler, Not a Substitute

H3 supports the TS–CE relationship, but H4 does not support moderation. This combination is very important. Technology seems to help effectiveness directly for example through production, distribution, monitoring, and integration tools but has not been shown to change the effectiveness dependence on workforce capacity. These findings are closer to the perspective of complementarity than substitution. Pinsonneault and Kraemer (2002) show that IT works in tandem with redesign; Brynjolfsson and Hitt (2000) and Melville et al. (2004) also emphasize complementary organizational investments, a point echoed in the digital transformation literature (Vial, 2019).

Boundary Conditions and Context of Communication Functions

Public communication has a character that may limit technology substitution. Tools can speed up editing, scheduling, monitoring, and documentation, but judgment, issue interpretation, coordination, stakeholder sensitivity, and crisis response still require humans. Therefore, technology may increase throughput without removing the need for role coverage. This may explain why the main effect of TS appears while interaction does not. This explanation is still interpretive and needs to be tested with task, time, and output quality data.

What is Confirmed, Expanded, and Qualified

This study confirms that resource constraints are associated with lower capacity experiences and that technology is related to effectiveness. This study expands the literature by placing workforce capacity as a different mechanism from communication output. This study qualifies the technology-as-buffer argument: technology support is beneficial, but it has not been shown to moderate the WC–CE relationship. Finally, this study challenges the practical assumption that high effectiveness can be used as an indicator that human resource capacity is adequate.

From Output to Capacity Health

The most important conceptual implication is the need to distinguish output performance from capacity health. Organizations can have high effectiveness scores while having low perceived capacity. Because this study is cross-sectional, we don't yet know how long such configurations can last or what the consequences will be for employees. But uncertainty is important: current performance is not enough to assess capacity readiness to meet future demands. Longitudinal research can test whether capacity pressure predicts future quality decline, turnover intention, burnout, or backlogs (see Bakker & Demerouti, 2017).

Theoretical Contributions

First, this study separates workforce capacity from communication effectiveness. Many discussions of efficiency assume that if the output remains good, the capacity constraint has been successfully managed. The data shows that the two things are not identical. By modeling WC and CE as separate constructs, the study makes it clear that capacity can be the main locus of resource pressure even though the perceived output has not decreased.

Second, this study identified a dual-pathway pattern. Minus growth is strongest associated with the capacity pathway, while technological support is strongest associated with the effectiveness pathway. This pattern is not formal mediation and should not be called such, but it provides a proposition that can be tested in subsequent studies.

Third, this study provides boundary conditions for the narrative of technology as a buffer. The main effect of technology is significant, but interaction is not. This means that the existence of tools does not automatically make workforce capacity less relevant. This strengthens the socio-technical approach that sees people, processes, and technology as resources that need to be orchestrated.

Fourth, this study introduces the performance-capacity puzzle as an interpretive tool, not a new construct that has been validated. This term refers to the coexistence of high perceived CE and low perceived WC. The value is to force the analysis to separate "is the output running?" from "is the capacity sufficient?".

Table 10. Theoretical Contribution Matrix

Findings	Literature touched	Kontribusi	Claim limits
MG → strong WC	Doing more with less; downsizing	Placing capacity adequacy as a proximal outcome	Not causal
Low WC, high CE	Organizational capacity; performance	Separating output from capacity health	Sustainability is not measured
TS → CE signifikan	IT capability; digital transformation	Technology as an enabling resource	Not proof of technological superiority
WC×TS is insignificant	IT-downsizing complementarity	Limit buffer/substitution claims	Need replication and longitudinal design

Practical and Policy Implications

1. Communication Workforce Capacity Mapping

The Secretariat/HR and central communication function need to map capacity pressure more objectively. This survey can be a screening layer to identify areas that need to be examined. The next mapping should combine workload, the proportion of actual time of employees, role coverage, competence, and operational characteristics. The goal is not to find a justification for adding employees, but to choose interventions that are appropriate to the diagnosis.

2. Minimum Communication Technology Standard

Because TS is significantly associated with CE and technology needs emerge strongly in open-ended questions, organizations can develop minimum technology standards based on the class of needs: content production, monitoring/listening, collaboration, storage, live communication, and crisis support. Standards should be function- and risk-based, rather than a list of uniform devices for all offices.

3. Communication Capability Framework

Technology only produces value if users have the capability to use it. Because the current WC scale does not measure skills, competency mapping needs to be done separately. Frameworks can include writing, visual production, issue monitoring, analytics, stakeholder communication, crisis communication, and AI/digital literacy.

4. Communication Capacity Dashboard

Dashboards should combine capacity and performance indicators. For example: Available FTE, workload hours, channel coverage, response timeliness, backlog, planned vs reactive work, technology readiness, and competency coverage. The principle is simple: don't judge the health of functions only from the output that has been successfully published.

5. MAP → PRIORITIZE → INTERVENE → MONITOR

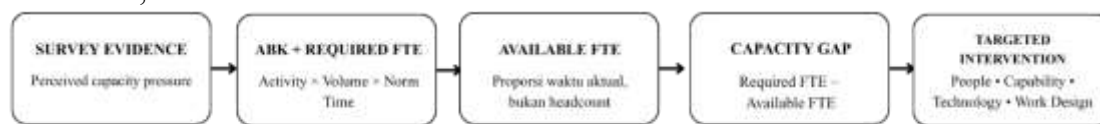
MAP: identify required and available capacity. PRIORITIZE: focus on high-risk gaps. INTERVENE: choose staffing, work redesign, capability development, technology, or a combination. MONITOR: value changes in capacity and effectiveness periodically. This cycle avoids one-size-fits-all intervention.

6. This Study Is Not ABK: Linking Perceived Capacity with Objective Capacity

This distinction must be explicit. The current survey is not a Workload Analysis (ABK). It measures individual perceptions of constraints, capacity adequacy, technology, and effectiveness. ABK is an objective/normative workload sizing process that requires work volume, time norms, effective working time, and applicable calculation rules. Therefore, the results of WC 2.22 cannot be translated as "lack of FTE".

More appropriate follow-ups are: Activity × Volume × Norm Time → annual workload → Required FTE; then compared to Available FTE → Capacity Gap. Available FTE needs to reflect the actual proportion of time on the communication function, not just a headcount. After the gap is calculated, the results need to be validated through functional coverage, competency coverage, continuity/resilience, technology enablement, and task force characteristics. Only after all task forces are calculated, can the distribution of needs be compared according to typology. Thus, staffing range is a mapping output, not a number set at the beginning.

Within the Ministry of Finance, the follow-up of crew members must use the applicable official guidelines. PMK 95 of 2025 can be a regulatory reference for Anjab and crew members of the Ministry of Finance, but technical parameters such as time norms and effective working time must be taken directly from the relevant official provisions/attachments at the time of implementation, not assumed in this article.



Validasi: functional coverage • competency coverage • continuity/resilience • karakteristik operasi

Range staffing per typologi adalah OUTPUT pemetaan aktual, bukan asumsi awal.

Figure 3. Follow-up Path from Survey Evidence to Objective Capacity Mapping

Research Limitations

First, the cross-sectional design constricts the temporal sequence. Although H1 is theoretically written MG→WC, the data support only associations consistent with that direction. Reverse causality or common antecedents cannot be eliminated.

Second, all main constructs are self-report-based. Perceived effectiveness can be different from channel analytics, response-time logs, media sentiment, or stakeholder assessments.

Perceived capacity is also different from objective workload hours or FTEs. Therefore, this study is best read as a diagnostic study on employee experience and perception.

Third, the composition of the sample was dominated by KPPBC. This distribution provides a broad operational context but limits the comparison between typologies, especially BLBC and PSO which are only three respondents each. This study does not infer staffing at the task force level.

Fourth, the quality of the measurements still has areas for improvement. WC1 has weak loading and moderate TS5; TS6 must be eliminated. The EFA is exploratory and has not been replaced by the CFA in independent samples.

Fifth, open-ended data is used as a categorical frequency-based supplemental evidence. Without documented qualitative coding protocols and without audited primary citations, this study does not claim thematic saturation or produce in-depth qualitative themes.

Sixth, the study did not measure burnout, overtime, well-being, turnover intention, absenteeism, objective backlog, or sustainability. Therefore, the performance-capacity puzzle only raises questions about capacity sustainability; it does not prove long-term damage.

CONCLUSION

This study began with the question of whether public organizations can continue to “do more with less” without eroding the capacity that supports their work. Data from 166 respondents involved in the Directorate General of Customs and Excise (DGCE) communication function provided a more nuanced answer than a simple yes or no. Perceived minus growth was strongly associated with lower workforce capacity but was not directly associated with communication effectiveness. At the same time, technological support was positively associated with communication effectiveness, whereas workforce capacity did not demonstrate a statistically significant unique association with communication effectiveness after technological support was taken into account.

These findings highlight a central insight: perceived effectiveness and workforce capacity are not equivalent. A communication function may be perceived as effective even when its workforce capacity is perceived as relatively limited. This finding does not demonstrate that such a condition is unsustainable; rather, it suggests that output-oriented indicators alone may be insufficient for assessing the underlying health of an organizational function. If organizational leaders focus exclusively on whether communication content is published, emerging issues are addressed, and communication channels remain operational, underlying capacity constraints may remain undetected.

Technological support appeared to provide part of the explanation, but not the entire solution. Technological support demonstrated a positive and statistically significant unique association with communication effectiveness, whereas the interaction between workforce capacity and technological support ($WC \times TS$) was not statistically significant. Thus, the findings provided no evidence that technological support moderated the relationship between workforce capacity and communication effectiveness. Technology should therefore be viewed as a complementary enabling resource that operates alongside human resources, workforce capabilities, organizational processes, and work design rather than as a demonstrated substitute for workforce capacity. Accordingly, the findings do not support either increasing staffing as the sole response to capacity constraints or assuming that technological investment can replace the need for adequate human capacity.

From a practical perspective, the findings should not be used directly to determine staffing requirements. Instead, the perception-based results may serve as an initial signal for a more objective assessment through communication workforce capacity mapping, workload analysis (Analisis Beban Kerja [ABK]), required and available full-time equivalent (FTE) estimates, functional and competency coverage, technological readiness, and operational continuity. Such an assessment could provide a stronger basis for determining whether identified capacity gaps should be addressed through staffing adjustments, work redesign, capability development, technological investment, or an appropriate combination of these interventions.

Ultimately, the question of whether public organizations can “do more with less” should not be answered solely by determining whether current tasks continue to be completed. A more important consideration is whether the organization possesses sufficient and sustainable capacity to maintain the expected quality of communication as demands evolve. The findings of this study suggest that maintaining effective public communication requires alignment among workforce capacity, employee capabilities, technological support, and work design. Future research should complement perception-based measures with objective workload and staffing indicators, longitudinal data, and comparative evidence across organizational units to determine whether the observed performance–capacity configuration persists over time and under changing operational demands.

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