

When Citizenship Meets Consumption: Measuring Customer Experience Quality in For-Profit Public Services

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Abstract

In liberalized markets, state-owned enterprises (SOEs) face a dual reality—rewarding their public mission while competing with private firms. This study develops and validates a multidimensional scale measuring Customer Experience Quality in For-Profit Public Services (EXQ-PUB). Building on the service-dominant logic and resource-based view, the study introduces a new dimension, Economic Patriotism, capturing customers' symbolic attachment to supporting national institutions. Using a sequential mixed-methods design, qualitative laddering interviews and two quantitative surveys among customers of Tunisie Telecom were conducted. The results confirm a four-dimensional structure—Economic Patriotism, Peace of Mind, Outcome Focus, and Product Value—forming a second-order formative construct. Structural equation modeling (PLS-SEM) demonstrates that specialized marketing capabilities positively influence EXQ-PUB, which in turn fosters both attitudinal and behavioral loyalty, mediating their relationship. The findings highlight that beyond functional and emotional aspects, customer experience in public services is deeply shaped by socio-symbolic motivations. The study extends customer experience theory to hybrid public-private contexts and provides public managers with a diagnostic tool to strengthen competitiveness and trust through experience-driven strategies.

Keywords: Customer Experience Quality, State-Owned Enterprises, Economic Patriotism, Scale Development, Customer Loyalty.

I. INTRODUCTION

CX became cornerstone of consumer relationship recognized as holistic assessment of the customer's cognitive, affective, emotional, social and physical interactions with the firm [1], [2], [3]; [4]. While its importance is widely acknowledged in the private sector, CX remains underexplored in a prevalent context which is the competitive state-owned enterprises (SOE), in liberalized markets.

SOE including telecommunication providers, banks, and airlines, depict specificities requiring them to operate in a dual reality: serving public interest underneath a competitive market. These firms are required to achieve equity and continuity, while facing pressure from agile, profit-driven competitors [7]. In such context, consumers are both clients and citizens whose judgments often integrate symbolic and patriotic considerations.

To fulfill this gap, this paper attempts to answer the following research question: How can customer experience quality be conceptualized, measured, and validated in the context of competitive SOEs?

By answering this question, this research provides threefold contributions:

- Developing and validating a multidimensional and hierarchical EXQ-PUB scale adapted to for-profit public services.
- Introducing the novel dimension of Economic Patriotism, distinguishing SOE experiences from private contexts.
- Establishing a nomological framework linking marketing capabilities, EXQ-PUB, and customer loyalty.

II. LITERATURE BACKGROUND

A. *The customer experience quality (CXQ)*

Initiated by Holbrook and Hirschman [6] experiential view emphasizes the symbolic meaning, subconscious processes, and nonverbal cues resulting from consumption. Rapidly, CX becomes a cornerstone concept representing a holistic understanding of the consumer journey, encompassing cognitive, emotional, sensory, and relational aspects [7][8]. In fact, there is difference between the service quality and the customer experience quality. While service quality depicts the gaps between expectations and performance of a product, customer experience quality emphasizes the overall perception across all touchpoints [9]. The holistic nature of customer experience requires a multidimensional construct. Several multidimensional frameworks have emerged: Schmitt's five experiential modules (sense, feel, think, act, relate) [10], Gentile et al.'s six components (sensorial, emotional, cognitive, pragmatic, lifestyle, relational) [11], and Klaus & Maklan's EXQ scale integrating dimensions such as product experience and peace of mind [9].

Nevertheless, these measurements were validated primarily in private contexts. Their direct applicable to the public service context will be limited due to politic, social constrains and moral obligations. Public consumers now behave more like private customers—demanding quality, transparency, and innovation [13].

B. *The Unique Context of Competitive SOEs*

SOE operate in a unique dual reality: serve customer expectations under the market pressure [14]. Market liberalization leading them to compete for consumers against agile, profit-driven private firms. In fact, consumers are guilty-free to choose private alternative once they are dissatisfied. Yet, their national identity and social legitimacy remain influential. Consumers often perceive loyalty to SOEs as an act of supporting the national economy—a behavior not explained by traditional service quality models. This dual perception inspired the introduction of Economic Patriotism as a new CX dimension. Thereby, the CX is assumed to exceed functional and emotional aspects to include the symbolic value to support a national institution. Therefore, a context-specific conceptualization is necessary.

III. CONCEPTUAL MODEL AND HYPOTHESES

A. *The EXQ-PUB Construct and its dimensions*

Based on literature review and exploratory research, EXQ-PUB is conceptualized as formative second-order construct. It contains five dimensions:

- **Economic patriotism:** it reflects the belief in supporting the national economy by consuming public services, even at personal cost. It draws from social identity theory [13], extending consumer ethnocentrism into a proactive, symbolic act of loyalty to national firms.
- **Peace Of Mind:** customers' perception of reliability, fairness, and transparency in interactions with the SOE [9].
- **Outcome focus:** the extent to which the service fulfills pragmatic objectives, such as continuity, efficiency, and security.
- **Product value:** customers' rational assessment of cost-effectiveness, including price fairness, loyalty benefits, and network-related advantages.

B. *Antecedents and consequences: Specialized Marketing Capabilities and Loyalty*

Drawing in the theory of resource-based view and service-dominant logic, specialized marketing capabilities (SMC)—product development, pricing, promotion, distribution, and relationship building—enable firms to create superior value propositions [15], [23].

H1: SMC positively influence EXQ-PUB.

H2: EXQ-PUB positively influences both attitudinal and behavioral loyalty.

H3: EXQ-PUB mediates the relationship between SMC and customer loyalty.

IV. METHODOLOGY

A sequential mixed-methods design is employed, in consistency with established scale development procedure [16][18].

A. Stage 1: Item generation and content validity

Twelve in-depth interviews were conducted with customers of Tunisie Telecom, a representative competitive SOE. Using the means-end chain and soft laddering techniques, consumers' cognitive and emotional associations were explored. Thematic analysis yielded 48 initial items, including the emergent concept of Economic Patriotism.

Expert evaluations using the Q-sort method refined the pool to 39 items across five dimensions with satisfactory reliability ($\alpha = 0.83$).

B. Stage 2: Exploratory and Confirmatory Validation

An exploratory factor analysis (EFA) with 128 valid responses confirmed the multidimensional structure. Items with low communalities or cross-loadings were removed, resulting in a four-factor, 20-item scale with strong internal consistency (Cronbach's α from 0.79 to 0.94).

A second data collection ($n = 169$) validated the model using Partial Least Squares Structural Equation Modeling (PLS-SEM), appropriate for models with formative and reflective constructs [19].

1) Measurement Instruments

- SMC: adapted from [16], covering pricing, promotion, relationship, and channel management.
- Loyalty: measured using Chitty et al. [20] and Donnelly [21] scales for attitudinal and behavioral components.
- EXQ-PUB: own

V. RESULTS

A. Measurement Model

All reflective constructs exhibited strong convergent validity (factor loadings > 0.7 , AVE > 0.5 , CR > 0.8). Discriminant validity was confirmed following Fornell & Larcker's criterion [22].

The four formative dimensions displayed acceptable collinearity ($VIF < 2.6$) and significant weights, confirming the second-order formative nature of EXQ-PUB.

TABLE I
PSYCHOMETRIC PROPERTIES OF THE REFLECTIVE CONSTRUCTS

Construct	Items	Factor loading	T-statistic	P Value	A	CR	AVE
ECOPATRI	PATRSM	0.902	56.914	0.000	0.945	0.956	0.785
	CZTSHIP	0.847	30.702	0.000			
	ETHNOCI	0.912	59.034	0.000			
	NATECONY	0.904	56.645	0.000			
	RELIBTY	0.893	41.670	0.000			
	TRUSTWNSS	0.854	33.105	0.000			
OUTFOC	EXPTIS	0.865	48.331	0.000	0.836	0.889	0.668
	CONTINUITY	0.838	28.944	0.000			
	PHYSURROUND	0.795	20.472	0.000			
	SECURITY	0.768	17.140	0.000			
POM	OUTQUAL	0.750	17.136	0.000	0.875	0.906	0.615
	PCSSTIME	0.782	17.179	0.000			
	SEVRECOV	0.802	25.919	0.000			
	TRANSCY	0.801	19.155	0.000			
	FAMLTy	0.811	28.727	0.000			
	GOODWILL	0.759	14.989	0.000			
PDTV _{al}	PRICE	0.711	12.911	0.000	0.789	0.863	0.613
	PGMLOYAL	0.836	29.211	0.000			
	ENTOUGCONF	0.791	20.822	0.000			
	ENTOUGINFL	0.789	20.436	0.000			
SMC	CAPDISCHAN	0.679	9.927	0.000	0.850	0.899	0.690
	CAPDTPVMT	0.823	24.582	0.000			
	CAPPROM	0.883	42.126	0.000			
	CAPRICE	0.781	20.488	0.000			
	CPBUILRLSHP	0.833	27.007	0.000			
BEHLOYAL	REPURINT	0.941	67.216	0.000	0.862	0.935	0.879

	LOYALTY	0.934	58.277	0.000			
ATTLOYAL	RECOMM	0.958	136.750	0.000	0.910	0.957	0.917
	WOF	0.958	138.535	0.000			

TABLE II

THE CORRELATIONS MATRIX OF EXQ-PUB FIRST-ORDER CONSTRUCTS

	ECOPATRI	EXQ-PUB	OUTFOC	POM	PDTEXP
ECOPATRI	1.000	0.877	0.555	0.640	0.556
EXQ-PUB	0.877	1.000	0.744	0.859	0.737
OUTFOC	0.555	0.744	1.000	0.645	0.492
POM	0.640	0.859	0.645	1.000	0.631
PDTEXP	0.556	0.737	0.492	0.631	1.000

The discriminant validity, as per Table II, shows that while the dimensions are correlated, they represent distinct facets of the customer experience. This validates our proposed four-dimensional structure as a robust measurement tool for the SOE context.

B. Structural Model and Hypothesis Testing

The values of R^2 are ranging from 0.703 to 0.984 supporting the model's substantial explanatory power. For the nomological validity, the three conditions of the nomological validity are confirmed. The results show significant relationships between:

- EXQ-PUB and the SMC: $\beta = 0.152$, $t = 4.351$, $p = 0.000$. H1 is supported. It suggests that while a good customer experience fosters some degree of social media engagement (e.g., following, liking, sharing), its direct impact is modest compared to its effect on core loyalty metrics.
- EXQ-PUB and the behavioral loyalty, corresponding to $\beta = 0.833$, $t = 35.948$, $p = 0.000$. H2a is supported. It confirms that a superior customer experience directly translates into tangible customer actions, such as repeat purchases, reduced churn, and willingness to pay more.
- EXQ-PUB and the attitudinal loyalty and to $\beta = 0.865$, $t = 44.711$, $p = 0.000$. H2b is supported. It indicates that improvements in customer experience quality (EXQ-PUB) lead to a substantial increase in customers' emotional attachment, satisfaction, and positive regard for the state-owned enterprise (SOE).

The confirmation of nomological validity, with all three hypothesized relationships being statistically significant ($p < 0.001$), provides evidence that the constructs of the model behave as expected from the underlying theory. This gives strong support to the construct validity of the EXQ-PUB scale. These results validate the four formative dimensions — *Economic Patriotism*, *Peace of Mind*, *Outcome Focus*, and *Product Value* — as key drivers of customer experience quality in SOE.

Further specific indirect effects analysis shows how EXQ-PUB, as a second-order formative model, consisting of Economic Patriotism, Outcome Focus, Peace of Mind, and Product Value, mediates the relationship between SMC and Customer Loyalty. While the indirect effect of SMC on loyalty via EXQ-PUB is weak but statistically significant, with a β -value of 0.128 ($p < 0.001$), indicating a mediated pathway. H3 is supported.

This suggests that the firm's specific marketing competencies, including sophisticated market analysis, selective communication, and brand management, cannot affect customer loyalty themselves but at least partly influence it through a perceptual filter of customer experience. In other words, for effective marketing capabilities to work, they have to improve first the customer's overall perception of the quality of the service, shaped by core dimensions such as Economic Patriotism and Outcome Focus, and, second, these improved perceptions of quality will then help foster a closer and more loyal customer relationship.

TABLE III

THE DIRECT AND INDIRECT RELATIONS OF THE LATENT VARIABLES

HYPOTHESES	PATH COEFFICIENT	T STATISTICS	P VALUES	RESULT
EXQ-PUB \rightarrow ATTLOYAL	0.770	13.882	0.000	(H1a) supported
EXQ-PUB \rightarrow BEHLOYAL	0.815	13.814	0.000	(H1b) supported

SMC --> EXQ-PUB	0.165	4.098	0.000	(H2) supported
SMC -> EXQ-PUB -> CUSTOMER LOYALTY	0.128	1.337	0.000	(H3) supported

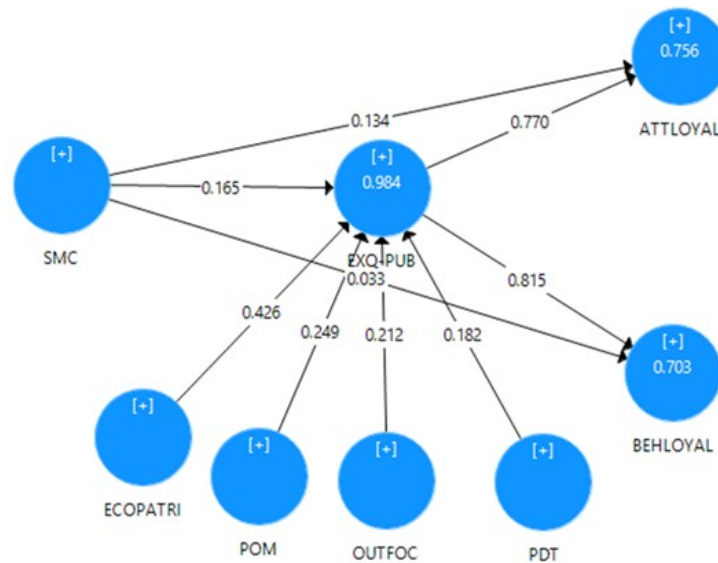


Fig1. Validation of the conceptual model

VI. DISCUSSION

C. Theoretical Implications

This study disposes to develop and validate a scale to measure customer experience quality in competitive SOE. Findings come with confirmation that CX in such hybrid context is indeed a multi-dimensional, formative second-order construct, shaped with four dimensions: Economic Patriotism, Peace of Mind, Outcome Focus, and Product Value, and explained with and 20 items.

This study's greatest contribution to knowledge lies in the identification and validation of Economic Patriotism as the most important dimension of the EXQ-PUB construct. This result significantly expands the theoretical boundaries of customer experience, hitherto constrained to emotional, functional, and sensorial dimensions only (Klaus & Maklan, 2012; Schmitt, 1999; Gentile et al., 2007). While prior research has touched upon related concepts like consumer ethnocentrism, Economic Patriotism captures a more profound and proactive form of commitment. It reflects a customer's choice to go all the way in supporting a national institution, potentially even at a personal cost, thereby transforming the consumption experience from a mere transaction into an expression of social identity and national solidarity (Tajfel & Turner, 1979). This situates the citizen-consumer's socio-symbolic motivation as a central rather than peripheral element of CX in hybrid public-service contexts.

D. Managerial Implications

For the managers of for-profit public services, the EXQ-PUB framework offers a strategic roadmap. To develop their competitive advantage, they have to first employ Economic Patriotism by creating and communicating powerful stories in relation to their national contributions—job creation, social investment, cultural preservation—and enhance the civic value perception of their services while developing a distinctive brand which no private competitor can imitate. Simultaneously, it is necessary to build Peace of Mind by visibly investing in operational transparency, procedural fairness, and solid service recovery mechanisms so as to return to the rooted trust that every public institution needs. Additionally, managers must reinforce Outcome Focus by constantly guaranteeing continuity and

reliability of service, an unwritten rule in such essential sectors as telecom, banking, and transport. They need to improve Product Value through the introduction of competitive loyalty programs and equitable price mechanisms that will convincingly meet the pragmatic demands of the market. Together, these measures, with the EXQ-PUB scale as an operational diagnostic device, allow managers to monitor systematically the quality of experience and coordinate with strategic marketing efforts, the dual expectations of their constituents as citizens and consumers.

VII. CONCLUSION AND FUTURE RESEARCH

This research developed and validated EXQ-PUB, a contextually adapted scale measuring Customer Experience Quality in For-Profit Public Services. Comprising four dimensions—Economic Patriotism, Peace of Mind, Outcome Focus, and Product Value—the model captures the dual identity of the SOE customer as both consumer and citizen.

Empirical results confirm the scale's validity and its mediating role between marketing capabilities and customer loyalty. This highlights CX as a critical bridge linking operational performance and national legitimacy in competitive SOE environments.

Future research could test EXQ-PUB across other public sectors (e.g., banking, transportation, energy) and cultures to examine cross-national variations in Economic Patriotism. Longitudinal designs would also help assess the stability of this construct in dynamic market conditions.

Ultimately, this study provides both a theoretical advance in CX measurement and a managerial instrument to enhance public service competitiveness through meaningful, trust-based customer relationships.

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TABLE III
EXQ-PUB ITEMS

Economic patriotism	
Citizenship	When I consume X, I feel that I'm a good citizen.
Patriotism	I stay with X by patriotism.
Ethnocentrism	I prefer to consume X over the other operators because it's a public service.
National Economy	I prefer to consume X to the detriment of the other operators to provide benefit to my country.
Reliability	I may rely on X since it's a public company.
Trustworthiness	X is trustworthy over other provider since it's a public company.
Outcome focus	
Continuity	X, as public company, ensures continued service.
Expertise	I feel confident in X's expertise.
Physical surroundings	X agencies are organized.
Security	X is a reputable company.
Peace of mind	
Familiarity	I have dealt with XYZ before so getting what I needed was really easy.
Goodwill	The people at X gives customer individual attention.
Outcome quality	X delivers a superior service quality.
Process time	The services' process time at X is swift.
Service recovery	X deals with me correctly when things go wrong.
Transparency	X is transparent.
Product expense	
Price	The prices proposed by X suit my budget.
Loyalty program	The loyalty programs of X grant/allow me to consume freebies.
Entourage conformity	Using X like my entourage lets me save money.
Entourage influence	It is important to me that my entourage use X to let me save money.

All measures employed 5-point Likert scales.