

Blue Ocean Strategy and sustainable competitive advantage: A PLS-SEM study of Cevital Group, Algeria

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Abstract

Though Kim and Mauborgne's (2005) seminal work on Blue Ocean Strategy (BOS) has been published for over a decade, research on its implementation in North African industrial conglomerates is still scarce. This work explores the relation between BOS and competitive advantage of one of the largest private industrial groups in Algeria, Cevital Group, through the lens of the Eliminate, Reduce, Raise, and Create (ERRC) framework. Integrating the BOS framework with the Resource-Based View and Dynamic Capabilities, the author develops and tests four hypotheses on the direct impacts of the ERRC dimensions on competitive advantage, as well as a fifth hypothesis on the impact of demographic and occupational differences on the assessments of the perceived competitive advantage by management and executives of Cevital Group. Data was collected through a questionnaire sent to 164 managers and executives of Cevital Group. The data was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with 5,000 bootstrap resamples. In the study, the ERRC dimensions were positively related to competitive advantage, with Create having the strongest relation ($\beta = 0.412$), followed by Raise ($\beta = 0.356$), Eliminate ($\beta = 0.287$), and Reduce ($\beta = 0.184$). The model accounted for 68.4% of the variance in competitive advantage ($R^2 = 0.684$). The results of the study were found to be reliable, valid, and free from Common Method Bias. Due to the single case study nature of the data, the author suggests interpreting the results as the perceptions of managers at Cevital Group rather than making broad generalizations about the firm.

Keywords: Blue Ocean Strategy, Competitive Advantage, Value Innovation, ERRC Framework, PLS-SEM, Dynamic Capabilities, Cevital Group, Algeria, Emerging Markets.

JEL Classification: L10, L25, M10, M31, O32.

Introduction

Globalization, technological advancements, and geopolitical changes have created more volatile business environments and denied businesses the opportunity to focus on beating competitors in established markets (Teece, 2014; Madsen & Slåtten, 2019). This has led to an emphasis on strategies in the 'blue oceans' where new market spaces can be created through value innovation (Kim & Mauborgne, 2005, 2017; Porter, 1980, 2008). One such strategy is the Blue Ocean Strategy (BOS) (Kim & Mauborgne, 2005), which focuses on creating new market spaces by innovating buyer value and reducing costs. Since its introduction, BOS has been studied in a number of contexts, including high-technology industries (Lindič et al., 2012), Chinese startups (Dehkordi et al., 2012), Taiwanese manufacturing (Borgianni et al., 2012), and European new ventures (Madsen & Slåtten, 2019). Despite this, the empirical evidence on BOS and competitive advantage in North African industrial contexts, and in emerging-market conglomerates more broadly (Hoskisson et al., 2000), is quite limited.

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Algeria is an apt context. Its industrial enterprises operate in an economy that is focused on diversification, reducing hydrocarbon reliance, and enhancing engagement with the global economy (Al Qudah & Hashem, 2018). The Cevital Group, founded by Issad Rebrab in 1998, is the largest privately owned Algerian industrial conglomerate with operations across multiple sectors and internationally (Cevital Group, 2025). Although the conglomerate has grown significantly, research on how BOS has contributed to its competitive advantage is lacking.

This study fills three interrelated gaps. First, it extends research on the BOS framework to a neglected North African industrial context. Second, it uses PLS-SEM to analyze the four dimensions of ERRC (Eliminate, Reduce, Raise, Create) simultaneously. Third, it integrates the BOS framework with the Resource-Based View (Barney, 1991) and the Dynamic Capabilities (Teece et al., 1997) to move beyond merely describing how BOS relates to value innovation and competitive advantage. The study goes beyond extending BOS research to a new geographical context. The main emphasis is on theorizing the integration of BOS with the Resource-Based View and Dynamic Capabilities within the same structural model to provide a theoretically grounded reason (rather than a descriptive one) for the possible relationships between the ERRC dimensions and competitive advantage. This differentiates the study from the existing BOS research that has typically examined the framework in isolation from the main streams of strategic management. The paper is organized as follows. After developing the theoretical foundation and hypotheses in Section 2, the methodology is explained in Section 3, the results of the research are presented in Section 4, the results are discussed in Section 5, and the main conclusions of the study are drawn, along with a description of the limitations and suggestions for future research, in Section 6.

2.1 Blue Ocean Strategy, the ERRC framework, and related viewpoints

Kim and Mauborgne (2005) introduced Blue Ocean Strategy as a framework focused on the construction of new market spaces. Value innovation is the basis of the framework; BOS argues that differentiation and low cost do not need to be reconciled choice architecture. Rather, reconstructing market boundaries and creating new demand is possible by altering the dimensions of competition that are currently irrelevant or dormant, framed later by Kim and Mauborgne (2017) as a reconstructionist view of strategy. The Eliminate, Reduce, Raise, and Create (ERRC) Grid, designed by Kim and Mauborgne (2005), provides operationalization of the aforementioned logic. Eliminate suggests removing elements that the industry has historically competed on but do not create sufficient buyer value; Reduce suggests removing factors that are beyond customer requirements; Raise suggests increasing factors that are important to buyers but have been neglected; and Create suggests introducing new factors that have previously been absent in the market, thus creating new demand. Because the four actions are complementary rather than mutually exclusive, the ERRC framework offers an adequate empirical analysis of BOS (Kim & Mauborgne, 2005; Lindič et al., 2012), and has been contextually adapted for the analysis of emerging markets and Small and Medium-sized Enterprises (SMEs) as a growth strategy (Agnihotri, 2016; Awladthani & Porkodi, 2023).

The Resource-Based View (RBV) also supports this logic. Building on Penrose (1959) and Wernerfelt (1984), Barney (1991) outlines how certain imperfectly mobile resources can lead to a sustainable competitive advantage. These ideas have been codified in the VRIO framework, under which strategically important resources and capabilities must be scarce, difficult to mimic, and aligned with the firm's organizational structure to lead to a sustained competitive advantage (Barney & Hesterly, 2019). While such resources (managerial know-how, innovativeness, and organizational learning) may be crucial to successful value innovation, BOS should not be seen as a VRIO resource. Nor should the framework's strategic value be assumed, apart from how well firms implement it in organizational practices and capabilities.

The Dynamic Capabilities view also incorporates a process perspective. Teece et al. (1997) define dynamic capabilities as a firm's ability to integrate, build, and reconfigure competences in response to changing environments, which Teece (2007) later categorizes as sensing, seizing, and reconfiguring. These processes capture BOS's emphasis on identifying non-customers and new sources of buyer value (sensing), creating new value (seizing), and innovating the allocation of

resources and business routines (reconfiguring). Thus, BOS and Dynamic Capabilities combine to offer a comprehensive framework for value innovation and the processes required for a firm to implement and renew it.

2.2. Competitive advantage and the integrative framework

Generally, competitive advantage describes a firm's capacity to create and sustain greater economic value than its competitors (Porter, 1985; Barney, 1991; Peteraf & Barney, 2003). This study adopts the perspective on competitive advantage from the strategic management literature (Barney & Hesterly, 2019; Day, 1994; Porter, 1985; Teece, 2007). Within this framework, five dimensions of competitive advantage are interrelated and complimentary. A cost advantage arises from a firm's capacity to provide products or services that fulfill a minimal standard of quality and compete in a market characterized by efficiency, economy of scale, learning effects, or favorable input conditions. A quality advantage describes a product or service that is superior to competitors' offerings, and difficult to imitate. An innovation advantage describes a competitor's capacity to introduce new products, processes, or business models, and to implement them before competitors. Customer responsiveness describes a competitor's ability to recognize and fulfill customer preferences that are hierarchically ahead of other customers' requirements. Flexibility describes a competitor's ability to adjust its operations, resource allocation, and market activities in response to changing requirements of the industry, especially when competitive conditions are rapidly evolving (Teece et al., 1997)

Integrating the three perspectives, Eliminate and Reduce make cost efficiency possible by cutting or lessening low-value elements; Raise makes cost efficiency possible by improving elements that are valued by customers; and Create makes possible new value propositions and new market opportunities. Firms that implement these ERRC actions are likely to eliminate unnecessary costs, enhance customer value, create new market offerings, and change their market position, all of which are in line with the RBV and the Dynamic Capabilities approach, which focuses on sensing, seizing, and restructuring. It is worth noting that the study does not assume that any one dimension of the ERRC framework a priori generates a greater impact than the others; rather the relative contribution of each is treated as an empirical question.

2.3 Systematic Literature Review

Following the PRISMA 2020 guideline (Page et al., 2021), a structured review was conducted on Scopus, Web of Science, and ScienceDirect for articles published between 2012 and 2025 for the combination of keywords of "Blue Ocean Strategy," "competitive advantage," "value innovation," "ERRC," and "strategy canvas." The initial search yielded 287 articles; after removing duplicates and applying the eligibility criteria (peer-reviewed articles published in English or Arabic that are directly related to BOS, value innovation, competitive advantage, and firm performance), 47 articles were selected for thematic synthesis. Intermediate screening counts (duplicates removed, and records excluded at each screening stage) were not retained in the reviewed articles and are therefore not reported individually.

The remaining studies encompass four key areas. Internationally, BOS is associated with value innovation, market reconstruction, and growth. Lindič et al. (2012) associated value innovation and new-market creation with high growth and used evidence from Slovenian 'gazelle' firms and Amazon.com. Borgianni et al. (2012) proposed a systematic approach to value-oriented innovation patterns with the ERRC logic. Agnihotri (2016) examined BOS in the context of the competitive environment in emerging markets. Madsen and Slåtten (2019) wrote from a management-fashion perspective and associated BOS with value innovation and growing market complexity while calling for more research on the organizational adoption and effects of BOS. In the Arab world, Hersh and Abusaleem (2016) and Al Qudah and Hashem (2018) found a positive relationship between BOS and competitive advantage in Saudi and Jordanian telecommunications firms, respectively. Awladthani and Porkodi (2023) integrated the research on BOS in small and medium enterprises that strive for sustainable growth, and the evidence has a strong focus on the service and telecommunications sectors, as well as on SMEs rather than on industrial conglomerates. In terms of methodology, the studies range from the conceptual and case-based (Lindič et al., 2012) to survey-based regression (Hersh & Abusaleem, 2016; Al Qudah & Hashem, 2018) with a limited use of Structural Equation Modeling able to estimate multiple dimensions of the ERRC simultaneously. Theoretically, BOS is rarely related to existing frameworks such as the

Resource-Based View or Dynamic Capabilities, which concern firm-specific resources and adaptive processes, respectively, but not value innovation.

This synthesis identifies four interrelated gaps that justify this research. The first is contextual. Most empirical BOS studies have been conducted in Asian, European, and Arab service/telecommunications industries, ignoring North African industrial conglomerates. The second gap is methodological. The majority of quantitative studies have employed regression analysis, which is less appropriate than structural equation modeling, which can analyze all dimensions of the ERRC framework simultaneously. The third gap is theoretical. BOS is analyzed separately from the RBV and Dynamic Capabilities. The fourth gap is empirical. There are very few, if any, studies that have investigated whether Eliminate, Reduce, Raise, and Create differ in their relative contributions to competitive advantage in industrial organizations in the emerging markets (Hoskisson et al., 2000).

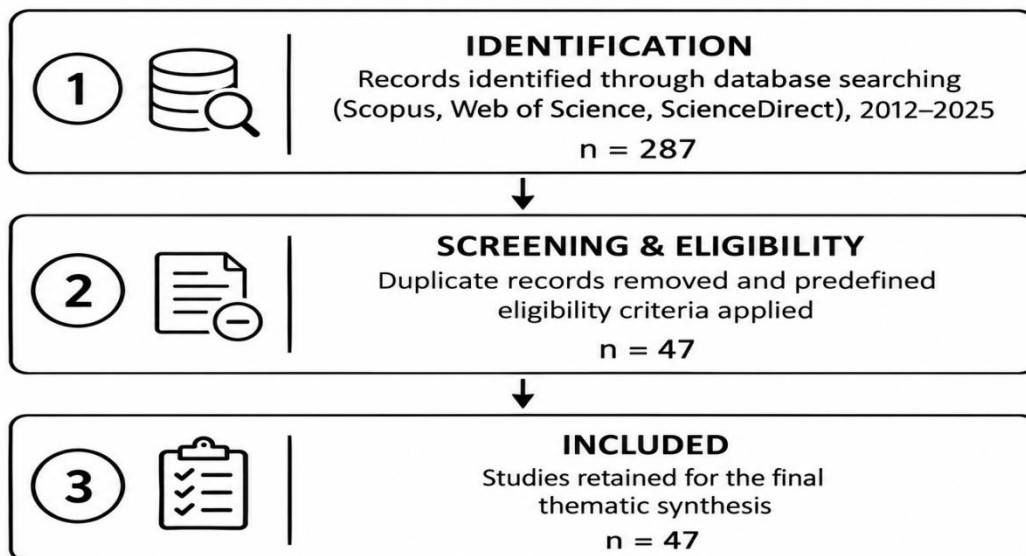


Figure 1. PRISMA 2020 flow diagram of the literature selection process

Note. The review identified 287 records at the initial search stage and retained 47 studies for the final synthesis. Intermediate screening counts (duplicates removed, records excluded at title/abstract screening, and full texts assessed for eligibility) were not preserved in the documented review records and are therefore not reported.

2.4. Research context and hypotheses

Cevital Group, founded in 1998 by Issad Rebrab, employing roughly 18,000 people with 26 subsidiaries spanning three continents, and reporting revenues of about USD 4 billion (Cevital Group, 2025), allows us to analyze BOS and competitive advantage, as the company has diversified and internationally expanded its business. We are not assuming that these business characteristics are evidence of BOS.

Using a large, diversified conglomerate as a case study follows a purposive, rather than a representative, logic. Cevital's size and diversity across the agro-industry, glass, and automotive sectors, and others, means that managers likely make a variety of strategic decisions, including decreasing, increasing, or adding competitive factors. While the study does not confirm that the company actually took any of the ERRC actions, it adds to the case-study logic and depth of managerial reasoning within the organization. This trade-off is made explicit in the limitations discussed in Section 6.2.

The study extends the theoretical framework by hypothesizing that each dimension of ERRC is reflective of competitive advantage. Eliminating non-value-adding activities allows organizations to direct their resources towards more value-adding activities and may involve withdrawal from routines that are not aligned with the market (H1a). Improving resource efficiency can be achieved by reducing over-emphasized factors while maintaining the perceived customer value (H1b). Differentiation can be achieved by raising under-emphasized factors that are important to the customer (H1c). The greatest potential for value innovation and demand creation is achieved by introducing industry-non-existent factors (H1d). Positive relations between BOS and competitive advantage have been documented in the Arab context (Hersh & Abusaleem, 2016; Al Qudah & Hashem, 2018), though none of these studies singularly focused on the four dimensions of ERRC and established Create as the most important dimension. As such,

H1a: The Eliminate dimension of Blue Ocean Strategy is posited to have a positive and statistically significant impact on competitive advantage at Cevital Group.

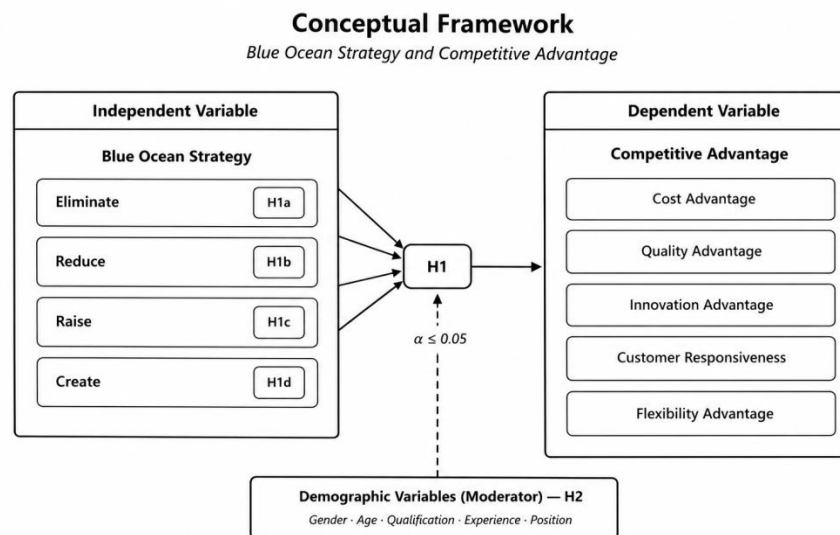
H1b: The Reduce dimension of Blue Ocean Strategy is posited to have a positive and statistically significant impact on competitive advantage at Cevital Group.

H1c: The Raise dimension of Blue Ocean Strategy is posited to have a positive and statistically significant impact on competitive advantage at Cevital Group.

H1d: The Create dimension of Blue Ocean Strategy is posited to have a positive and statistically significant impact on competitive advantage at Cevital Group.

Given that managers with more years of organizational experience may have made more strategic decisions, and educational qualifications may influence familiarity with strategic concepts, but no theory supports predicting a specific pattern across all demographic categories a priori, the following exploratory hypothesis is tested:

H2: The perceptions of the connection between Blue Ocean Strategy and competitive advantage vary considerably by demographic and occupational characteristics of the respondents.



Note. H1a–H1d denote the direct-effect hypotheses linking the Eliminate, Reduce, Raise, and Create dimensions to competitive advantage. Demographic and occupational variables (H2) were examined through mean-comparison tests (independent-samples t-test/ANOVA) and, for organizational experience only, a supplementary multi-group analysis (Section 4.3), rather than as a formally tested moderator of the structural model.

3. Research methodology

3.1. Design and sampling

This study is rooted in positivism and the quantitative, cross-sectional framework (Hair et al., 2022; Saunders et al., 2019). Given the research model incorporate a comparatively complex structural specification (i.e., four exogenous ERRC dimensions but a broad, multi-item competitive-advantage construct), and that the focus is on explaining and predicting variance of the endogenous construct rather than on confirming a theoretical model, it was decided to employ Partial Least Squares Structural Equation Modeling (PLS-SEM) rather than covariance-based SEM (Hair et al., 2022). It should be noted that, due to the single-time, single-organization nature of the data collection, the findings should be interpreted as statistical associations, if any, among the variables in the model rather than as causation (Antonakis et al., 2010).

The target population was estimated to be approximately 420 individuals and consisted of executives, department heads, and marketing officers, employed at the Cevital Group's Bejaïa industrial complex and Algiers headquarters. A purposive sample was used to gather organizational knowledge; eligibility required a minimum of two years' service, a management or supervisory role, and participation in the formulation of the organization's or marketing strategy of the organization. Of the 180 eligible individuals invited to participate, 164 completed and returned the survey (a 91.11% response rate). It was determined that the sample was adequate for PLS-SEM using Kock and Hadaya's (2018) inverse-square-root, power-based approach rather than the conventional 10-times rule; with $\alpha = 0.05$ and power = 0.80, 164 observations exceeded the minimum requirement for a four-predictor model.

3.2. Measurement instrument and common method bias

The 44-item instrument was created through literature-based item generation, contextual adaptation, and independent bilingual translation/back-translation reviewed by three bilingual academic experts in strategic management (Brislin, 1970). Five additional content experts evaluated the relevance and clarity of the items using Lawshe's (1975) Content Validity Ratio, and items that met the predetermined criteria were retained. A pilot study was conducted with 35 respondents (who were later excluded from the final sample), which led to three improvements (two Eliminate items that were ambiguous were reformulated, one double-barreled Customer Responsiveness item was revised, and a brief contextual introduction was added)). The pilot study also established preliminary Cronbach's alphas between 0.79 and 0.93, which were considered acceptable for more prominent hypothesis testing. The final instrument contained Section A (demographic and occupational information), Section B (measuring BOS containing 14 items: Eliminate (3), Reduce (3), Raise (4), Create (4)), and Section C (measuring competitive advantage containing 25 items: Cost, Quality, Innovation, Customer Responsiveness, Flexibility Advantage, each containing five items). Items assessing the constructs of the competitive advantage were measured using a five-point Likert scale.

Due to the single-respondent, single-source design, common method bias (CMB) was addressed both procedurally and statistically. Respondents were assured that their responses would be anonymous and would only be used for research. Items used to measure the ERRC predictor constructs and the competitive advantage construct were placed separately in the questionnaire in an effort to avoid respondents from justifying their responses. Additionally, the wording of the items was edited to remove ambiguity and to minimize systematic response patterns (Podsakoff et al., 2003; MacKenzie & Podsakoff, 2012). As outlined in Lindell & Whitney (2001), Harman's single-factor test and a marker-variable procedure based on a construct not associated with the theory (Lindell & Whitney, 2001) have been applied and reported in Section 4.2. While these tests may provide some diagnostic evidence of common method variance (CMV), they should not be interpreted as indicating that CMV is absent.

3.3. Data analysis

The analysis comprised three parts. The first part, conducted in IBM SPSS 26, involved the generation of descriptive statistics and mean comparisons (independent-samples t-tests and one-way ANOVA). The second part, conducted in SmartPLS 4 (Ringle et al., 2024), involved an assessment of the measurement model to determine indicator reliability, Composite Reliability, Average Variance Extracted, Fornell-Larcker and HTMT discriminant validity, and VIF. The final

part, an assessment of the structural model, involved nonparametric bootstrapping (5,000 resamples) to determine path coefficients, effect sizes (f^2 ; Cohen, 1988), R^2 , and predictive relevance (Q^2 , PLSpredict; Shmueli et al., 2019).

Table 1 shows that Create had the highest mean ($M = 4.28$, $SD = 0.421$), with Raise ($M = 4.12$, $SD = 0.467$) following closely behind, followed by Eliminate ($M = 3.84$, $SD = 0.521$) and Reduce ($M = 3.71$, $SD = 0.548$); the overall BOS score was 3.99 ($SD = 0.498$), and Competitive Advantage was 4.06 ($SD = 0.534$). Descriptive statistics do not determine the direction or significance of the relationships to be discussed; however, a generally positive assessment can be made.

Table 1. Descriptive statistics for study constructs (N = 164)

Construct	Mean	SD	Minimum	Maximum
Eliminate	3.84	0.521	2.00	5.00
Reduce	3.71	0.548	2.00	5.00
Raise	4.12	0.467	2.50	5.00
Create	4.28	0.421	3.00	5.00
BOS (composite)	3.99	0.498	2.38	5.00
Competitive Advantage	4.06	0.534	2.20	5.00

Note. N = 164. SD = standard deviation. All variables were measured using a five-point Likert scale. Data were analyzed using SPSS Statistics version 26.

4.2. Measurement model

Convergent validity was acceptable throughout. The outer loadings ranged from 0.738 to 0.891, Composite Reliability ranged from 0.869 to 0.931, Average Variance Extracted ranged from 0.587 to 0.752, and Cronbach's Alpha ranged from 0.812 to 0.941 (Table 2). Competitive Advantage was represented as a single first-order reflective construct made up of all 25 items, as opposed to a second-order construct made up of five lower-order dimensions, which represents a more parsimonious approach. This approach ensured acceptable reliability and validity, although it does not prove the five conceptual dimensions behave as distinct subconstructs. It is recommended that the subsequent research assesses the model with a second-order specification.

Table 2. Convergent validity and composite reliability

Construct	Items	Cronbach's α	CR	AVE
Eliminate	3	0.812	0.869	0.687
Reduce	3	0.834	0.878	0.706
Raise	4	0.867	0.910	0.717
Create	4	0.891	0.924	0.752
Competitive Advantage	25	0.941	0.931	0.587

Note. N = 164. CR = Composite Reliability; AVE = Average Variance Extracted. Source: Authors' analysis using SmartPLS 4.

Discriminant validity was shown by the following: the constructs' AVE's construct correlations, from which the squared roots were derived (Fornell & Larcker, 1981); and HTMT ratios ranging from 0.421 to 0.783, which were less than the threshold of 0.85 (Henseler et al., 2015). The complete correlation matrices are available upon request from the corresponding author. VIFs (1.467-2.376) were all well below the conservative threshold of 3.3, indicating that multicollinearity was not problematic.

As for common method bias, Harman's single factor explained 32.7% of the variance (less than the 50% cutoff), and a marker-variable procedure using perceived weather satisfaction, a construct that was theoretically unrelated to the others, had negligible correlations (-0.041 to 0.078) with the other constructs. While these diagnostics do not indicate that common method bias was severe, given the single-source, single-informant design of the study (Section 6, Limitations), no single test can definitively rule out common method bias.

4.3. Structural model and hypothesis testing

The model accounted for 68.4% of the variance in competitive advantage ($R^2 = 0.684$; adjusted $R^2 = 0.676$), $Q^2 = 0.412$ indicating predictive relevance. SRMR = 0.067, which is below the heuristic of 0.08. While SRMR is not treated as a standalone criterion of model validity in PLS-SEM (Hair et al., 2022), NFI (0.728) is also interpreted conservatively for the same reason.

All four proposed paths were positive and statistically significant (Table 3; Figure 3): Create had the strongest effect ($\beta = 0.412$, $t = 7.123$, $f^2 = 0.247$, $p < .001$), with Raise following next ($\beta = 0.356$, $t = 5.846$, $f^2 = 0.189$, $p < .001$). Eliminate had a path coefficient of ($\beta = 0.287$, $t = 4.327$, $f^2 = 0.124$, $p < .001$), with the smallest effect among the three paths, with Reduce showing the least effect among all the paths ($\beta = 0.184$, $t = 2.281$, $f^2 = 0.052$, $p = .024$). Hypotheses H1a-H1d are therefore all supported. The order Create > Raise > Eliminate > Reduce was predicted, and the pattern holds. Because of the nature of path coefficients, the ordering should be read as a descriptive pattern in effect sizes, not a formally tested ranking, which would require a different procedure.

Table 3. Hypothesis testing results

Hyp.	Path	β	SE	t	95% CI	f^2	Decision
H1a	Eliminate→CA	0.287	0.066	4.327	[0.157, 0.417]	0.124	Supported
H1b	Reduce→CA	0.184	0.081	2.281	[0.025, 0.343]	0.052	Supported
H1c	Raise→CA	0.356	0.061	5.846	[0.236, 0.476]	0.189	Supported
H1d	Create→CA	0.412	0.058	7.123	[0.298, 0.526]	0.247	Supported

Note. N = 164. CA = Competitive Advantage; SE = Standard Error; CI = Confidence Interval. Bootstrapping was performed using 5,000 resamples.

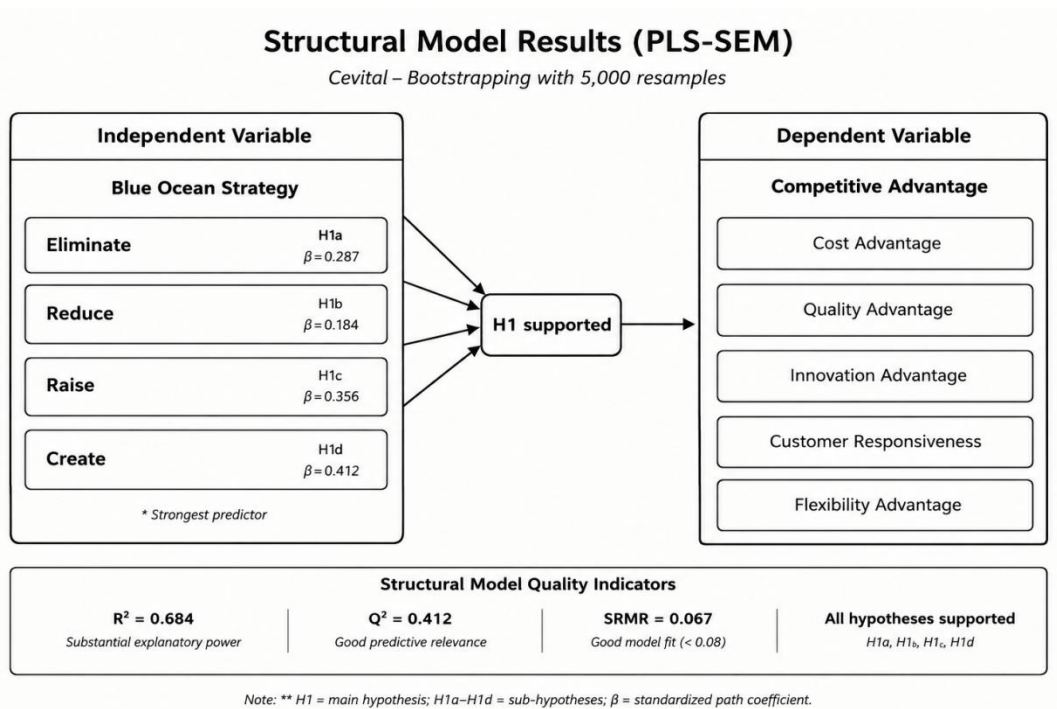


Figure 3. Structural model results (PLS-SEM path estimates)

Note. β = standardized path coefficient; bootstrapping with 5,000 resamples. All four paths were statistically significant ($p < .05$); Eliminate, Raise, and Create were significant at $p < .001$, and Reduce at $p = .024$. SRMR (0.067) falls below the conventional 0.08 heuristic but, consistent with Section 4.3, is not treated as a standalone criterion of model fit in PLS-SEM.

For H2, there was statistically significant difference for experience, $F(3, 160) = 8.42$, $p < .001$, $\eta^2 = 0.137$, and educational qualification, $F(2, 161) = 6.18$, $p < .01$, $\eta^2 = 0.071$. There was no statistically significant difference for gender, $t(162) = 1.42$, $p = .158$, or age, $F(3, 160) = 1.87$, $p = .137$. This provides partial support for H2. A secondary analysis using the multi-group approach (MGA) indicated a stronger relation for the BOS-competitive advantage for the more experienced respondents ($\beta = 0.521$) compared to less experienced respondents ($\beta = 0.387$). The significance test for the difference was not captured in the analysis records, therefore, this will be reported as a descriptive comparison and not as a moderation effect.

4.4. Robustness checks

There were a number of additional analyses that corroborated the results. A sensitivity analysis conducted without the eight cases identified as potentially influential ($n = 156$) resulted in path coefficients that differed by no more than 0.024 from the original analysis and preserved the same ordering of dimensions. The same ordering of dimensions was also preserved in a second order BOS specification, which also resulted in an R^2 of 0.671. An exploratory mediation analysis indicated a value innovation path of 0.241 (95% CI [0.156, 0.326]), which was treated as an exploratory result. The out-of-sample PLSpredict assessment (Shmueli et al., 2019) yielded positive Q^2_{predict} values of 0.143 to 0.358. It was stated that PLS-SEM outperformed linear regression for most indicators. Finally, estimates of manufacturing and corporate-function subgroups ($n = 89$, $R^2 = 0.701$; $n = 75$, $R^2 = 0.658$) revealed a similar ordering of effects. A formal MICOM measurement-invariance test was planned, but the numerical results were not recorded, so I can only provide these subgroup comparisons as supplemental information.

5. Discussion

5.1. Interpreting the findings

The results of the current study ($R^2 = 0.684$) are consistent with the extant literature on BOS and firm performance, though the samples, industries, and constructs differ across studies (Chin, 1998), so direct comparisons should be made with caution. Cevital's diversification and international activities likely contribute to the results of the present study by providing the firm with the ability to strategically experiment and reconfigure resources, although this interpretation is more plausible than causal given the nature of the data.

Create, the strongest predictor ($\beta = 0.412$, $t = 7.123$, $f^2 = 0.247$, $p < .001$), provides support for H1d, and is consistent with the BOS framework, where innovating on the central-place value is most closely related to BOS (Kim & Mauborgne, 2005, 2017). As the industry has not previously offered the factors created, this component of the ERRC framework is most closely related to attracting a new market. From a Dynamic Capabilities framework, this is most closely related to the firm's ability to identify and capture new market opportunities through the introduction of new products, services, and/or business models (Teece, 2007, 2014). From an RBV framework, this may be influenced by the firm's distinctive, complicated-to-imitate knowledge and innovation resources (Barney, 1991). The result does not prove that Create is a VRIO resource, meaning it is valuable, rare, difficult to imitate, and is reinforced by the organization (Barney & Hesterly, 2019), or if it is a higher-order dynamic capability on its own. The result offers evidence that Create-oriented activities are related to the perceived competitive advantage in this case study.

In the second highest predictor, Raise ($\beta = 0.356$, $t = 5.846$, $f^2 = 0.189$, $p < .001$), was also supported, meaning that in addition to new offerings, it is important to increase factors that are valued by customers above the current industry level. This is consistent with BOS's concept of raising certain factors while pursuing cost reductions in others (Kim & Mauborgne, 2005), and from the Dynamic Capabilities view, with closing perceived value gaps by reconfiguring existing resources (Teece, 2007). The strong effect indicates that in a typical industrial conglomerate, competing to create new offerings is as important as improving existing products, processes, and customer interactions.

Eliminate was positively and significantly related to competitive advantage ($\beta = 0.287$, $t = 4.327$, $f^2 = 0.124$, $p < .001$), thus supporting H1a. Although its effect was less than Create and Raise, it was strategically important to remove factors that no longer create customer value. This supports BOS's criticism of traditional industry practices that may no longer warrant their cost (Kim & Mauborgne, 2005). From the perspective of Dynamic Capabilities, this also refers to the organizational work of discontinuing misaligned routines (Teece, 2007). The study, however, does not assess organizational inertia or what exactly Cevital stopped doing, so this is a preliminary guess.

Of the four ERRC strategies, Reduce produced the smallest, though still significant, coefficient ($\beta = 0.184$, $t = 2.281$, $f^2 = 0.052$, $p = .024$), supporting H1b. While it is likely that the reduction of some factors was driven by the emphasis of other factors beyond what the customers really need, from a market space creation perspective, it can be argued that reduction is not entirely strategically irrelevant. Within a conglomerate, the elimination of unnecessary costs and other resource-intensive activities can be strategically important, especially in freeing up resources for new ventures, which is in line with BOS's argument of pursuing value and cost simultaneously (Kim & Mauborgne, 2005). The ordering Create > Raise > Eliminate > Reduce suggests that the four ERRC strategies do not equally contribute to perceived competitive advantage in this case, although all four are statistically significant.

Respondents' experience and education seem to have influenced their perceptions, especially regarding the importance of BOS in creating a competitive advantage. These perceptions could also be influenced by the more extensive exposure to strategic changes of those respondents with a longer work experience and the more advanced respondents' familiarity with strategic concepts. However, these findings do not prove that experience and education strengthen the relationship between BOS and creating a competitive advantage.

5.2. Theoretical contributions

The study makes four theoretical contributions. First, it positions BOS in the existing literature on strategic management and includes both RBV and Dynamic Capabilities, which can be used as interpretive frameworks and can be studied in depth by future research as mediators (such as resource inimitability and the capacity to sense-move-reconfigure). Second, it establishes that the four ERRC dimensions do not all merge into an undifferentiated whole, and that they can be differently related to competitive advantage, justifying the need for further disaggregation of BOS in empirical work. Third, it provides evidence on BOS in an Algerian, North African, industrial context, evidence that should not be broadly extrapolated to other Algerian or North African firms, given the single-firm focus, without similar studies in other firms and industries. Fourth, it illustrates a comprehensive PLS-SEM approach (covering reliability, validity, multicollinearity, common-method bias, and predictive relevance) for studying BOS in an emerging market firm, without endorsing the view that refinement of research methodology is the only criterion that can be used to evaluate the superiority of a research approach over its simplified equivalents.

5.3. Practical implications

Create's dominant position encourages managers to enhance cross-functional innovation teams, actively seek out customer segments, and integrate market intelligence with innovation, especially when evaluating new opportunities. Initiatives should be assessed against customer value, market potential, and implementation feasibility. Raise also suggests that managers should enhance their quality management and customer service, as well as Information Technology, you should, however, set those enhancements against measurable customer and operational benefits, not against competitor benchmarks. Eliminate and Reduce remain good options, as a separate agenda is not necessary. Identifying unnecessary activities, features, and processes will free up resources for innovation, and the four ERRC actions are likely more effective when used together and integrated into strategic planning, product development, and on behalf of the organization as a whole.

BOS should be implemented as an organizational process, not as a single decision. It could be initiated with a phased approach, starting with the systematic identification of customer needs and market opportunities, followed by an ERRC analysis and the prioritization of initiatives for implementation, which will then be assessed on an ongoing basis. It is probable that the conjunction of innovation and operational efficiency, as well as the permanence of established practices, will be the most challenging obstacles, requiring the appropriate commitment of management, performance monitoring, and resource allocation for cross-functional coordination, particularly for the initiatives of greatest strategic value and feasibility. The ERRC framework's practical usefulness varies case to case, so the findings can largely be regarded as strategic suggestions rather than broadset prescriptions.

Conclusion, limitations, and future research

The goal of this research was to analyze how the four dimensions of the ERRC framework in Blue Ocean Strategy are connected to competitive advantage at Cevital Group, and which dimension has the most important role. With an integrative framework of BOS, RBV, and Dynamic Capabilities, and using PLS-SEM, all four dimensions of the ERRC framework were positively and significantly related to competitive advantage ($R^2 = 0.684$). In this framework, Create was the best predictor, followed by Raise, Eliminate, and Reduce. This shows that, in addition to innovation and value creation, there is a need to consider efficiency-related actions. Since the evidence is based on the perceptions of one single organization, the authors of this research argue that the results should be interpreted as positive relationships that are valid within a certain context rather than as causal relationships that hold at the level of the entire industry.

There are a few limitations to consider when analyzing these results. First, respondents from all organizations evaluated the same target organization. This means that estimated relationships may reflect differences in how people in the same organization perceive things, rather than differences in how organizations strategically act. It is possible that a positive sunk-cost effect (i.e., halo effect) on the target organization is responsible for the estimated relationships. Second, the data collection method used prohibits making causal claims (Antonakis et al., 2010); studying the relation between BOS and competitive outcomes can only be done using a longitudinal methodology. Third, using self-reported data (a purposive,

non-probability sample that is appropriate for reaching knowledgeable respondents, but not drawn in a random manner from the accessible population) increases the risk of type I errors. Fourth, the direct relationships between the ERRC and competitive advantage have been documented, but the mediating roles of value innovation, organizational learning, absorptive capacity, and dynamic capabilities have been neglected. Lastly, it is possible that the BOS activities are specific to the Algerian context, as is likely the case with the other elements of the studied construct.

Further research could include multi-case comparisons of Algerian industries, longitudinal studies of the implementation of the ERRC framework, and the achievement of objective performance outcomes. This research could also include mediation models that examine the relationship between BOS and competitive advantage, the relationship between BOS and digital transformation, the integration of sustainability/ESG within the ERRC framework, and comparative studies between North Africa and other emerging market economies. The results from the research point to BOS serving as a valuable strategic framework to understand how companies differentiate their offerings, create new customer value, and improve their competitive edge. The research points to the need for additional case studies to validate these findings beyond the Algerian context, as the evidence is based on self-reported data from a single case.

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