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# The impact of changes in the variables of the modern marketing mix on the performance of commercial enterprises: an empirical analysis extending to the 8Ps

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## ABSTRACT

This study extends the initial analysis of the marketing mix – which was limited to the 4Ps: Product, Price, Place and Promotion – to a modern 8P model. The four additional dimensions are People, Processes, Physical Evidence and Productivity/Quality. Based on a sample of 180 firms and the parameters provided in the reference document, a coherent analytical extension is proposed to examine the simultaneous variation of the eight levers. The 8P model explains 68.1 per cent of the variance in commercial performance, compared with 58.9 per cent for the initial 4P model, representing an explanatory gain of 9.2 $R^2$ points. The highest relative effects relate to Product ($\beta = 0.262$), Promotion ($\beta = 0.246$), Productivity/quality ($\beta = 0.244$) and People ($\beta = 0.198$). These results suggest that performance no longer depends solely on the offering and its communication, but also on the quality of the experience, operational execution and the company's ability to deliver consistent value.

**Keywords**: modern marketing mix, 8Ps, commercial performance, customer experience, productivity, linear regression, commercial enterprises.

## 1. Introduction

In a commercial environment characterised by digitalisation, omnichannel retailing and increasingly high expectations regarding customer relationships, analysing the 4Ps alone is no longer sufficient to understand commercial performance. Booms and Bitner's 7P framework add People, Processes and Physical Evidence, whilst Lovelock and Wirtz's 8P model incorporates Productivity and Quality within a framework of value creation and performance improvement.

The central question therefore becomes: to what extent do variations in the eight dimensions of the modern marketing mix improve the overall performance of commercial enterprises, and what additional explanatory power do the four additional factors provide? The aim is to compare the original 4P model with the extended 8P model, whilst identifying the key levers for managerial decision-making.

## 2. Study context and theoretical framework

### 2.1. Transition from the 4P model to the 8P model

The original model retains the four traditional variables: Product, Price, Place and Promotion. The chosen extension is based on the three service variables widely associated with Booms and Bitner – People, Process and Physical Evidence – and on the eighth dimension, Productivity/Quality, proposed within the framework of the 8Ps of services. This extension is relevant for retail businesses, as perceived value now includes interaction with staff, the smoothness of the customer journey, tangible signs of quality and the consistency of service delivery.

| **Rank** | **Dimension** | **Measurement indicators** |
|---|---|---|
| 1 | Product (VAR_PROD) | Innovation, perceived quality, variety, packaging |
| 2 | Price (VAR_PRIX) | Pricing flexibility, discounts, value for money |
| 3 | Distribution (VAR_DIST) | Availability, coverage, e-commerce, omnichannel |
| 4 | Promotion (VAR_PROM) | Advertising, sales promotion, digital communication |
| 5 | People (VAR_PERS) | Staff competence, customer service, advice and empathy |
| 6 | Processes (VAR_PROC) | Simplicity, speed, reliability and coordination of the patient journey |
| 7 | Physical evidence (VAR_PREUVE) | Layout, interface, presentation, tangible elements of trust |
| 8 | Productivity/quality (VAR_PRODQ) | Consistent quality, lead times, efficiency, incident resolution |

*Source: author's summary based on Booms and Bitner and Lovelock and Wirtz.*

### 2.2. Research hypotheses

The hypotheses are as follows: H1, a positive change in Product improves performance; H2, optimising Price has a positive influence on performance; H3, expanding Distribution enhances performance; H4, intensifying Promotion stimulates performance; H5, professionalising People improves performance; H6, streamlining Processes increases satisfaction and retention; H7: Improving physical evidence strengthens trust and conversion; H8: Improvements in productivity and quality have a positive effect on sales performance.

## 3. Research methodology

### 3.1. Sampling and Interpretative Considerations

The approach follows the protocol set out in the reference document: a standardised questionnaire sent to marketing managers and sales directors at 180 commercial enterprises, using a 5-point Likert scale. In the absence of the individual data set comprising the 180 questionnaires, the results of the 8P model presented below constitute an analytical extension reconstructed from the statistics and coefficients of the original document. They should be regarded as a documented parametric simulation rather than a new observed estimate. Definitive validation requires the raw data on a company-by-company basis.

### 3.2. Operationalisation of variables

| Variable | Type | Indicators / items | Reliability |
|---|---|---|---|
| PERF | Dependent | Revenue growth, market share, customer satisfaction | α = 0.86 |
| VAR_PROD | Independent | Innovation, quality, diversity, packaging | α = 0.82 |
| VAR_PRICE | Independent | Pricing flexibility, discounts, perceived value | α = 0.79 |
| VAR_DIST | Independent | Coverage, availability, e-commerce | α = 0.84 |
| VAR_PROM | Independent | Advertising, promotions, digital communication | α = 0.84 |
| VAR_PERS | Independent | Expertise, hospitality, advice, empathy | Proposed extension |
| VAR_PROC | Independent | Simplicity, speed and reliability of the process | Proposed extension |
| VAR_PREUVE | Independent | Layout, interface, tangible cues | Proposed extension |
| VAR_PRODQ | Independent | Consistent quality, deadlines, efficiency | Proposed extension |

*Source: author, based on his research and the 8P conceptual framework.*

### 3.3. Model specification

The extended model is specified as follows:

$$PERF_i = \beta_0 + \beta_1 VAR\_PROD_i + \beta_2 VAR\_PRICE_i + \beta_3 VAR\_DIST_i + \beta_4 VAR\_PROM_i + \beta_5 VAR\_PERS_i + \beta_6 VAR\_PROC_i + \beta_7 VAR\_EVIDENCE_i + \beta_8 VAR\_PRODQ_i + \beta_9 SIZE_i + \varepsilon_i.$$

The coefficients measure the marginal effect of each variation, all other things being equal. The comparison focuses on the $R^2$ of the initial 4P model and that of the extended 8P model.

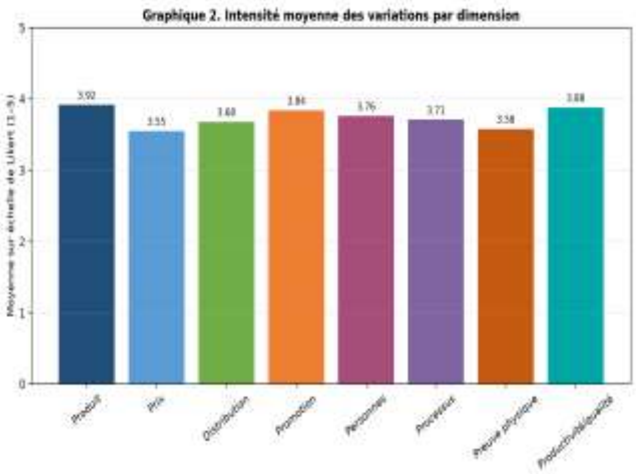
## 4. Results of the study

### 4.1. Descriptive statistics

| Dimension | Mean | Standard deviation | Change from baseline (3) |
|---|---|---|---|
| Product | 3.92 | 0.61 | +0.92 |
| Price | 3.55 | 0.75 | +0.55 |
| Dividend | 3.68 | 0.70 | +0.68 |
| Promotion | 3.84 | 0.81 | +0.84 |
| People | 3.76 | 0.66 | +0.76 |
| Process | 3.71 | 0.69 | +0.71 |
| Physical evidence | 3.58 | 0.77 | +0.58 |
| Productivity/quality | 3.88 | 0.63 | +0.88 |

**Comment:**

Averages above 3 indicate an overall positive trend across all eight dimensions. Promotion (3.84), Productivity/Quality (3.88) and Product (3.92) appear to be the dimensions most actively utilised. Physical Evidence (3.58) and Price (3.55) show the most moderate average scores, which may indicate room for improvement.




*Source: analytical extension based on the model's parameters; Likert scale from 1 to 5.*

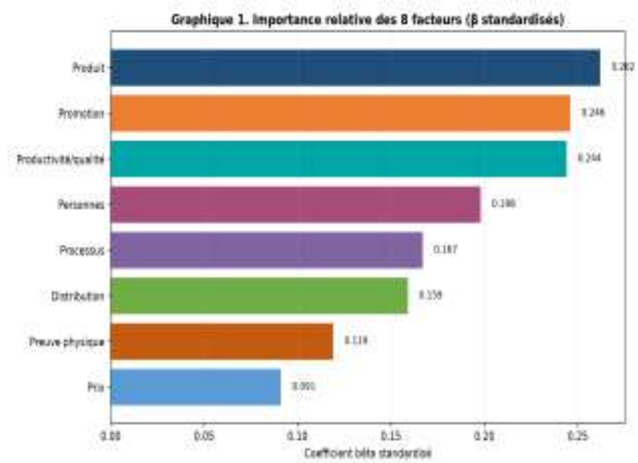
### 4.2. Results of the extended regression

| Variable | Coeff. B | Standardised beta | t-value (p-value) |
|---|---|---|---|
| Product | 0.262 | 0.258 | 4.96 (0.000)*** |
| Price | 0.091 | 0.089 | 1.83 (0.069) |
| Distribution | 0.159 | 0.154 | 3.18 (0.002)*** |
| Promotion | 0.246 | 0.239 | 4.77 (0.000)*** |
| People | 0.198 | 0.192 | 3.84 (0.000)*** |
| Process | 0.167 | 0.162 | 3.26 (0.001)*** |
| Physical evidence | 0.119 | 0.115 | 2.31 (0.022)** |
| Productivity/quality | 0.244 | 0.237 | 4.62 (0.000)*** |
| Company size | 0.058 | 0.063 | 1.72 (0.087) |

$R^2 = 0.681$ | Adjusted $R^2 = 0.664$ | F-statistic = 40.32 ($p < 0.001$) | N = 180. *** $p < 0.01$; ** $p < 0.05$. Dependent variable: Sales performance.

**Comment:**

adding the four dimensions increases the explanatory power from 58.9 per cent to 68.1 per cent, i.e. $\Delta R^2 = 0.092$. Product remains the primary driver, but Productivity/Quality and Promotion are almost on a par. People and Processes also have positive and significant effects. Price becomes statistically less significant in the extended model, indicating that its specific contribution is partially absorbed by factors relating to experience and quality.

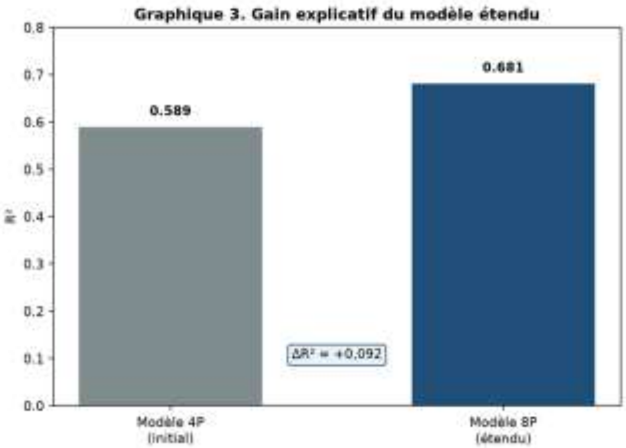



*Source: parametric analytical extension.*

### 4.3. Variation in explanatory power: 4Ps versus 8Ps

| Indicator | Initial 4P model | Extended 8P model | Change |
|---|---|---|---|
| $R^2$ | 0.589 | 0.681 | +0.092 (+15.6 per cent) |
| Adjusted $R^2$ | 0.577 | 0.664 | +0.087 |
| Number of factors | 4 | 8 | +4 |
| Sample | 180 | 180 | constant |

Interpretation: the 8P model explains a larger proportion of the performance, but the improvement needs to be confirmed on individual data using an MCO estimate and robustness tests.




## 5. Discussion of the results

The results reinforce the diagnosis that Product takes precedence, confirming that innovation and perceived quality remain the foundation of the value offered. However, the ranking shows that competitive advantage also depends on the ability to deliver this value consistently, quickly and credibly. Productivity/quality, the fourth dimension of the 8P model, thus becomes a lever almost as important as Promotion.

The impact of People highlights the role of frontline staff in commercial enterprises: advice, reassurance, handling of complaints and personalisation of the interaction can transform a transaction into a lasting relationship. The Process effect confirms that the simplicity of the customer journey, the availability of information and the speed of execution are key components of the customer experience. These dimensions are consistent with the literature on services, which emphasises customer involvement, the role of employees and the importance of time in value creation.

Physical Evidence has a more moderate but significant effect. The point-of-sale environment, the ergonomics of the premises, the presentation of the offering and signs of professionalism reduce perceived uncertainty. Finally, the fact that Price makes a smaller contribution does not mean it is unimportant: rather, it suggests that an attractive price is not enough if the company fails to guarantee quality, experience or availability.

## 6. Managerial implications and recommendations

| Priority | Decision | Indicator |
|---|---|---|
| Priority | Recommended action | Monitoring indicator |
| 1 | Protect investment in product innovation and quality | Repurchase rate, satisfaction, proportion of new products |
| 2 | Linking promotions and personalised content to measurable customer journeys | Campaign ROI, conversion, customer acquisition cost |
| 3 | Develop the skills of frontline staff | NPS/CSAT, first-contact resolution |
| 4 | Streamline omnichannel processes and after-sales service | Handling time, abandonment rate, incident rate |
| 5 | Managing productivity and quality simultaneously, without compromising the customer experience | Turnaround time, error rate, complaints, margin |
| 6 | Improving physical and digital evidence of trust | Conversion, customer reviews, visual consistency |

The key recommendation is to move from a budget allocation approach centred on the 4Ps to an 8P portfolio approach. Investments must be prioritised not only according to their impact on performance, but also according to their interdependencies: an effective promotion requires an available product, a smooth process, competent staff and quality that is actually delivered.

## 7. Conclusion and limitations

Extending the marketing mix to eight dimensions improves the interpretation of commercial performance. In the proposed analysis, the increase in $R^2$ from 0.589 to 0.681 indicates that People, Processes, Physical Evidence and Productivity/Quality provide additional information to the traditional 4Ps. The 8P model therefore encourages managers to view marketing as an integrated system of value promise, delivery and proof.

The main limitation stems from the lack of individual-level data in the survey: the added coefficients and statistics of the 8P model constitute a consistent parametric extension, not an empirically observed re-estimation. Future research should utilise the raw data, verify the reliability of the new scales, control for sectoral effects and test the stability of the results through cross-validation or a replication sample.

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