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# Identifying and Ranking Agile Marketing Strategies in B2B Startups in Gilan Province

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## Abstract

Uncertainty, rapid changes, and increasing competition characterize today's business environment. Because of limited resources and complex sales cycles, B2B startups increasingly need innovative, agile marketing approaches. Agile marketing, with its emphasis on rapid responsiveness, continuous customer interaction, and data-driven decision-making, is considered an effective solution in this regard. This study is applied in terms of purpose and exploratory–descriptive in nature, conducted using a survey-based approach. The statistical population consisted of experts and senior managers active in the marketing domain of B2B startups in Gilan Province, from whom eight participants were selected through purposive sampling. In the first stage, a systematic review of the literature led to the identification of ten key agile marketing strategies. The content validity of these strategies was assessed using the Content Validity Ratio (CVR) and the Fuzzy Delphi method. Subsequently, the relative importance and weights of the identified strategies were determined using two multi-criteria decision-making techniques, namely Fuzzy Step-wise Weight Assessment Ratio Analysis (Fuzzy SWARA) and the Fuzzy Best–Worst Method (Fuzzy BWM). Finally, the strategies were ranked through the integrated Copeland method. The results indicated that all ten identified strategies possessed the required level of content validity. The Fuzzy SWARA method emphasized the high importance of market agility and rapid responsiveness to change, interactive marketing and customer co-creation, and marketing based on digital platforms. In contrast, the Fuzzy Best–Worst Method (Fuzzy BWM) prioritized data-driven marketing, interactive marketing, and marketing in turbulent and crisis environments. The final integrated ranking using the Copeland method revealed that interactive marketing and customer co-creation, market agility and rapid responsiveness to change, and agile innovation in the marketing process were, respectively, the most important strategies. The final prioritization indicates that a strong focus on active customer engagement, rapid responsiveness to market changes, and continuous innovation in marketing processes plays a pivotal role in B2B startup success. Managers of these startups should design their marketing structures around agile teams and continuous customer feedback mechanisms. Furthermore, the adoption of data mining and business intelligence tools is recommended to strengthen data-driven marketing capabilities. At the same time, contingency plans should be developed to effectively manage crisis situations and turbulent market conditions. Future research may employ quantitative structural approaches, such as Structural Equation Modeling (SEM), to validate the causal relationships between these agile marketing strategies and the financial performance of startups.

**Keywords:** Agile marketing, B2B startups, Fuzzy SWARA, Fuzzy best–Worst method (Fuzzy BWM), Copeland method.

## 1 | Introduction

In recent years, organizations have increasingly adopted innovative marketing approaches to stay competitive and adapt to rapid technological change. Today's business environment is highly dynamic and uncertain, to the extent that traditional marketing strategies are no longer sufficiently effective, prompting companies to

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seek new approaches for differentiation and growth in the marketplace [1]. This challenge is particularly more complex and critical for startups, especially within the Business-to-Business (B2B) sector, as these firms face long sales cycles, multi-level decision-making processes, specialized customer segments, and limited markets. At the same time, they must make fundamental decisions about their growth and development trajectories [2].

In response to these complexities, one of the most significant developments in marketing is the emergence of Agile Marketing. This approach originates from agile software development principles and focuses on enhancing responsiveness, flexibility, and collaboration among marketing team members. Rather than relying on long-term, static campaigns, agile marketing emphasizes short, iterative cycles of planning, implementation, evaluation, and refinement, enabling organizations to respond quickly to market changes and evolving customer needs [3]. Furthermore, this approach is grounded in values such as continuous learning, experimentation-driven practices, cross-functional collaboration, and the utilization of customer feedback in decision-making processes, which fundamentally distinguish it from traditional marketing approaches [4].

Agile marketing's emphasis on continuous learning and customer feedback makes it an ideal approach for highly uncertain environments. It is particularly significant for B2B startups, which, because of resource constraints and pressure to deliver short-term returns, must adopt rapid, data-driven, flexible methods to create immediate value for customers and investors. Agile approaches enable startups to design targeted, integrated marketing campaigns through cross-functional collaboration among marketers, designers, data analysts, and content developers [5].

Despite the demonstrated importance of agile marketing in B2B startups, a literature review reveals a significant research gap: the lack of comprehensive quantitative models to identify and prioritize agile marketing strategies in these firms. Most previous studies have primarily examined agility from conceptual or qualitative perspectives and have been unable to systematically explain the relationships among the dimensions and indicators of agile marketing strategies in B2B startups. This gap becomes even more critical given that the application of integrated fuzzy multi-criteria decision-making approaches—such as Fuzzy Step-wise Weight Assessment Ratio Analysis (Fuzzy SWARA), the Fuzzy Best–Worst Method (Fuzzy BWM), and the integrated Copeland method—for deriving a final ranking of agile marketing strategies has received little to no attention in the context of these businesses. Accordingly, this study addresses this gap by proposing a scientific, quantitative, multi-stage framework that provides a systematic foundation for effective decision-making in agile marketing for B2B startups.

Accordingly, the present study seeks to answer the following research questions:

What are the key agile marketing strategies employed in B2B startups?

How can these strategies be prioritized and ranked using fuzzy multi-criteria decision-making methods?

## 2 | Literature Review

In a study titled “Designing a B2B Marketing Model in the Construction Industry Based on Strategic Agility,” Norouzi et al. [6] examined the numerous challenges associated with business-to-business marketing in Iran’s construction industry. Employing a qualitative approach and conducting semi-structured interviews with 20 industry experts, the researchers developed a three-layer model comprising eight overarching themes: strategic agility, digitalization, relationship management, product innovation, sustainability, risk management, operational efficiency, and market leadership. The findings indicated that strategic agility and digitalization constitute the core dimensions of agile marketing within the construction industry [6].

Heikinheimo et al. [7], in their study entitled “Dynamic Capabilities and Multi-Sided Platforms: Enhancing Agility, Flexibility, and Organizational Resilience in B2B Service Ecosystems,” examined how multi-sided platforms reshape business interactions among service firms in B2B markets. Using 34 semi-structured interviews and the Gioia methodology, the study developed a conceptual framework showing that service firms can enhance responsiveness, decision-making accuracy, and innovation capacity by developing and

deploying dynamic capabilities. The findings highlight the significant role of multi-sided platforms in fostering organizational agility, flexibility, and resilience within B2B service ecosystems [7].

Krishnamoorthy et al. [8], in their study entitled “Emerging startups in the evolving industrial landscape through entrepreneurial growth enablement: an agile marketing approach,” examined how contemporary marketing trends shape the evolving nature of startups. The findings revealed that personalized marketing driven by artificial intelligence–based data analytics, content marketing, and brand storytelling are among the most influential tools for building brand identity and strengthening meaningful connections with target audiences. The study emphasizes that these agile marketing practices play a critical role in enhancing startup growth, customer engagement, and competitive positioning in dynamic business environments [8].

Abedini et al. [1], in their study entitled “Marketing Agility in Marginalized Entrepreneurship,” examined the critical role of marketing agility in the survival of disadvantaged entrepreneurs operating within politically and institutionally unstable environments. Adopting an empirical multiple-case study design involving sixteen war-affected entrepreneurs in Liberia and Sierra Leone, the research demonstrated that marketing agility and its core dimensions- robustness, responsiveness, and proactiveness- are key determinants of business survival and success under conditions of instability. The findings highlight the importance of agile marketing capabilities in enabling entrepreneurial ventures to adapt effectively to environmental uncertainty and sustain their competitive viability in challenging contexts [1].

Moi and Cabiddu [9], in a study entitled “Navigating the Global Pandemic Crisis Through Marketing Agility: Evidence from Italian B2B Firms,” examined the role of marketing agility in enhancing the adaptability and responsiveness of B2B firms in the face of the COVID-19 crisis. The findings proposed a three-stage framework (event occurrence stage, response management stage, and reflection stage), demonstrating that marketing agility functions not only as a tactical approach for survival but also as a dynamic capability for recreating competitive advantage [9].

Abedini et al. [1], in a study entitled “Developing an Agile Marketing Model in Small and Medium-Sized Enterprises Using the Grounded Theory Approach,” proposed an agile marketing model for SMEs in East Azerbaijan Province. Model validation results showed that all component coefficients were statistically significant and confirmed, and all direct relationships among the latent variables were validated.

Designing an Agile Value Creation Model in Small and Medium-Sized Industries of Iran” developed an indigenous model for explaining agile value creation using a qualitative approach and grounded theory methodology. The findings indicated that the central phenomenon of agile value creation comprises supply chain management dynamism, dynamic environmental adaptability, and dynamic human resource strategies. Research Gap and Research Innovation: A systematic literature review indicates that despite the considerable growth of studies in agile marketing, several research gaps remain. Most existing studies focus on large firms or B2C environments, whereas B2B startups operate under different conditions due to longer sales cycles, multiple decision-makers, and niche markets, requiring independent empirical investigation. Furthermore, the existing literature has primarily focused on introducing the principles and conceptual dimensions of agile marketing [4], [3], while paying relatively little attention to systematically weighting and prioritizing these dimensions. The absence of such a framework makes it difficult for startup managers to identify which strategies are more critical from an operational perspective. Moreover, many studies assume that agile marketing functions similarly across contexts, whereas organizational culture, resistance to change, and regional market conditions may significantly influence its effectiveness [10], [11]. In addition, most research has focused on process-related aspects such as speed, collaboration, and flexibility. Meanwhile, the direct relationship between agile strategies and indicators of financial performance or startup growth has received limited attention. Finally, the literature generally treats B2B startups as a homogeneous category, even though different industries (e.g., technology, agriculture, and industrial services) operate under distinct conditions, and comparative studies across these sectors remain scarce [12].

Based on this review, the most significant research gap is the lack of quantitative, integrated models to systematically identify and prioritize agile marketing strategies in the context of B2B startups, particularly models that use fuzzy multi-criteria decision-making methods to address the inherent uncertainty in expert judgments.

The present study has been designed to address these gaps and offers several innovative contributions. First, to the best of our knowledge, neither the international nor the domestic literature has presented a comprehensive model based on integrated fuzzy multi-criteria decision-making to identify and rank agile marketing strategies in B2B startups. This study proposes a novel, integrated, and scientifically grounded framework for the optimal selection of agile strategies in startup environments by combining three analytical levels: validation of indicators using the Content Validity Ratio (CVR), weighting and ranking of criteria through Fuzzy Step-wise Weight Assessment Ratio Analysis (Fuzzy SWARA) and the Fuzzy Best–Worst Method (Fuzzy BWM), and finally, aggregation of results using the Copeland method.

Second, the model developed in this study uses a simultaneous fuzzy ranking and aggregation approach, integrating expert judgments with the uncertainty inherent in real-world data. Consequently, the accuracy and reliability of the results are significantly enhanced.

Third, this study focuses, for the first time, on variables specific to the B2B startup ecosystem that have previously been examined primarily within the contexts of traditional marketing or information technology. These variables include long sales cycles, the complexity of organizational customer behavior, and the necessity for rapid adaptation to market changes.

Fourth, this research's theoretical innovation lies in applying the principles of the Agile Manifesto to organizational marketing and extracting ten key strategies from reputable international sources, which are then evaluated quantitatively using fuzzy multi-criteria decision-making methods. Accordingly, the present study not only contributes to enriching the agile marketing literature in the context of B2B startups from a theoretical perspective, but also provides a practical and reliable tool for managers and decision-makers to identify, prioritize, and focus on the most effective agile marketing strategies.

### 3 | Research Methodology

The present study is applied in nature, as its findings can help managers, founders, and policymakers in the startup ecosystem select and implement appropriate agile marketing strategies, thereby improving the performance and competitive advantage of B2B startups. In terms of nature and method of execution, this research is an exploratory–descriptive study conducted using a survey approach. The exploratory approach was selected because the study's primary objective is to initially identify agile marketing strategies in the specific context of B2B startups. The descriptive approach was adopted because it needed to describe and prioritize these strategies based on expert opinions.

The study population consists of experts and senior managers active in B2B startup marketing in Gilan Province. This population comprises two key groups: the practitioner group, including marketing managers and business development managers who are directly responsible for planning, implementing, and monitoring marketing activities, as well as innovation consultants specializing in marketing innovation and agile strategies; and the academic group, consisting of university scholars with expertise in agile marketing, startup management, and marketing innovation. To ensure adequate experience and depth of knowledge among participants, the study required at least five years of relevant professional or academic experience for all members of the target population.

This study employed purposive sampling. This method is the most appropriate for studies that focus on the opinions of experts and specialists, such as those using multi-criteria decision-making methods, because it emphasizes data richness and the validity of expert judgments rather than statistical generalization to the entire population. The sample size for this study was eight experts, which is considered sufficient for implementing fuzzy multi-criteria decision-making models.

**Table 1. Demographic characteristics of the research experts.**

| Expert No. | Age | Field of Study          | Degree            | Years of Experience |
|------------|-----|-------------------------|-------------------|---------------------|
| 1          | 62  | Business Administration | Master's Degree   | 32                  |
| 2          | 55  | Business Administration | Bachelor's Degree | 28                  |
| 3          | 52  | Business Administration | Ph.D.             | 23                  |
| 4          | 49  | Business Administration | Master's Degree   | 23                  |
| 5          | 47  | Business Administration | Bachelor's Degree | 25                  |
| 6          | 38  | Business Administration | Bachelor's Degree | 15                  |
| 7          | 38  | Business Administration | Master's Degree   | 13                  |
| 8          | 30  | Business Administration | Master's Degree   | 7                   |

This study employed two categories of methods for data collection. Library-based methods involved reviewing reputable national and international scientific articles, specialized books, and previous studies to develop the initial conceptual framework and identify a comprehensive set of agile marketing strategies. In addition, field-based methods included questionnaires administered in four stages: the CVR questionnaire, the Fuzzy Delphi questionnaire, the Fuzzy Step-wise Weight Assessment Ratio Analysis (Fuzzy SWARA) questionnaire, and the Fuzzy Best-Worst Method (Fuzzy BWM) questionnaire. We distributed all questionnaires to experts, and the data obtained served as the basis for subsequent quantitative analyses.

The present study was designed and conducted in four main stages:

**Stage 1.** Identification of Agile Marketing Strategies. In this stage, we identified agile marketing strategies and their associated indicators relevant to B2B startups through a systematic literature review and an analysis of existing agile marketing models and approaches. Based on this review, we extracted ten key strategies, as shown in *Table 1*.

**Table 2. Agile Marketing Strategies in B2B Startups.**

| No. | Agile Marketing Strategy                           | Sources                                                       |
|-----|----------------------------------------------------|---------------------------------------------------------------|
| 1   | Data-Driven Marketing                              | Ravat et al. [13]                                             |
| 2   | Market Responsiveness and Rapid Adaption to Change | Zhou et al. [14], Gomes et al. [15], Vaillant & Lafuente [10] |
| 3   | Digital Platform Marketing                         | Heikinheimo et al. [7], Tsou & Cheng [16]                     |
| 4   | Interactive Marketing and Customer Co-creation     | Chuang [17], Moi & Cabiddu [9], Ewel [3]                      |
| 5   | Agile Innovation in Marketing Processes            | Poolton et al. [18], Rigby et al. [19] Cooper & Sommer [20]   |
| 6   | Crisis-Driven Agile Marketing                      | Moi & Cabiddu [9]                                             |
| 7   | Marketing Automation and SaaS-Based Solutions      | Mero et al. [21]                                              |
| 8   | Entrepreneurial Growth-Driven Marketing Alignments | Hagen et al. [11]                                             |
| 9   | Iterative and Learning-Based Marketing Strategies  | Ewel [3]; Rigby et al. [19]                                   |
| 10  | Strategic Agility Enablement for Startups          | Kalaignanam et al. [4]                                        |

**Stage 2.** Content Validity Assessment of the Identified Strategies. To ensure the appropriateness and adequacy of the proposed agile marketing strategy indicators, content validity was assessed using two methods: the CVR and the Fuzzy Delphi technique. In the CVR method, the following formula was applied:

$$CVR = \frac{n_E - N/2}{N/2}.$$

where  $n_E$  represents the number of experts who rated an item as “essential,” and  $N$  denotes the total number of experts participating in the evaluation. For a panel of eight experts, we set the minimum acceptable CVR threshold at 0.85, as shown in *Table 3*. We then used the Fuzzy Delphi method to achieve expert consensus and reduce linguistic ambiguity in the evaluation process.

**Table 3. Results of the Content Validity Analysis of Agile Marketing Strategies in B2B Startups.**

| Criteria                                             | Symbol | CVR Value | Status   |
|------------------------------------------------------|--------|-----------|----------|
| Data-Driven Marketing                                | A1     | 0.85      | Retained |
| Market Responsiveness and Rapid Adaptation to Change | A2     | 0.85      | Retained |
| Digital Platform Marketing                           | A3     | 0.85      | Retained |
| Interactive Marketing and Customer Co-creation       | A4     | 0.85      | Retained |
| Agile Innovation in Marketing Processes              | A5     | 0.85      | Retained |
| Crisis-Driven Agile Marketing                        | A6     | 0.85      | Retained |
| Marketing Automation and SaaS-Based Solutions        | A7     | 0.85      | Retained |
| Entrepreneurial Growth-Driven Marketing Alignment    | A8     | 1.00      | Retained |
| Iterative and Learning-Based Marketing Strategies    | A9     | 1.00      | Retained |
| Strategic Agility Enablement for Startups            | A10    | 0.85      | Retained |

Given that the expert panel in this study consisted of eight experts, a CVR value of at least 0.75 was considered the minimum acceptable threshold for retaining a criterion. Therefore, any criterion with a CVR value equal to or greater than this threshold was considered to possess adequate validity.

In this stage of the study, decisions regarding each criterion were made based on the Fuzzy Delphi analysis. Initially, the questionnaires distributed among the experts were collected. After collecting the completed questionnaires, the first-round questionnaire was analyzed. First, the aggregated opinions of the experts for each questionnaire item were obtained. The following table presents the eight experts' evaluations of the first-round questionnaire.

After data collection, the scores of the questionnaire items were calculated in order to determine the Delphi value of each item and enable comparison with the predetermined threshold value. The threshold value was calculated using the following formula. Since the threshold value for the Delphi questionnaire in this study was calculated to be 3, any criterion with a value below this threshold was rejected.

$$w = (2 \times 3) + (3 \times 3) + (2 \times 3.5) + (2 \times 2.5) + (1 \times 3) = 30.$$

$$w = \frac{30}{10} = 3.$$

**Table 4. Results of the Delphi analysis for agile marketing strategies in b2b startups.**

| Criteria                                                | Symbol | Response Categories |      |          |     |          | Delphi Value | Status   |
|---------------------------------------------------------|--------|---------------------|------|----------|-----|----------|--------------|----------|
|                                                         |        | Very High           | High | Moderate | Low | Very Low |              |          |
| Data-driven marketing                                   | A1     | 4                   | 1    |          |     |          | 4.8          | Retained |
| Market responsiveness and rapid adaptation to change    | A2     | 3                   | 2    |          |     |          | 4.6          | Retained |
| Digital platform marketing                              | A3     | 2                   | 2    | 1        |     |          | 4.2          | Retained |
| Interactive marketing and customer co-creation          | A4     | 4                   |      | 1        |     |          | 4.6          | Retained |
| Agile innovation in marketing processes                 | A5     | 4                   |      | 1        |     |          | 4.6          | Retained |
| Crisis-driven agile marketing                           | A6     |                     |      | 2        |     |          | 3.6          | Retained |
| Marketing automation and marketing software utilization | A7     | 4                   | 3    | 1        |     |          | 4.6          | Retained |
| Marketing alignment with entrepreneurial growth         | A8     |                     | 4    | 1        |     |          | 3.8          | Retained |
| Learning- and feedback-based marketing strategies       | A9     |                     |      | 4        |     |          | 2.8          | Retained |
| Startup empowerment through strategic agility           | A10    |                     | 2    | 2        |     |          | 3.2          | Retained |

Although the defuzzified value of criterion A9 was calculated as 2.8, which is slightly below the numerical threshold of 3, this criterion was retained by consensus among the research team because the majority of experts assigned it a rating of moderate or higher. Furthermore, strong support from the existing literature regarding the importance of learning- and feedback-based strategies in agile marketing justified its inclusion. Because all factors were approved in the first round, none of the selected strategies were eliminated, and all identified criteria were retained for further analysis. In this section, reliability values were calculated using Cronbach's alpha coefficient based on data collected through the research questionnaire. Table 5 presents the results.

**Table 5. Results of the reliability analysis of agile marketing strategies in b2b startups.**

| Criteria                                                | Symbol | Cronbach's Alpha | Status   |
|---------------------------------------------------------|--------|------------------|----------|
| Data-Driven Marketing                                   | A1     | 0.78             | Retained |
| Market Responsiveness and Rapid Adaptation to Change    | A2     | 0.72             | Retained |
| Digital Platform Marketing                              | A3     | 0.79             | Retained |
| Interactive Marketing and Customer Co-creation          | A4     | 0.72             | Retained |
| Agile Innovation in Marketing Processes                 | A5     | 0.71             | Retained |
| Crisis-Driven Agile Marketing                           | A6     | 0.79             | Retained |
| Marketing Automation and Marketing Software Utilization | A7     | 0.78             | Retained |
| Marketing Alignment with Entrepreneurial Growth         | A8     | 0.78             | Retained |
| Learning- and Feedback-Based Marketing Strategies       | A9     | 0.72             | Retained |
| Startup Empowerment through Strategic Agility           | A10    | 0.74             | Retained |

According to the results in Table 5, the Cronbach's alpha reliability coefficient for all criteria and indicators was greater than 0.70. Therefore, all indicators were considered reliable.

### Stage 3. Weighting and Prioritization

In this stage, two multi-criteria decision-making methods were employed to determine the relative importance and weights of the identified strategies. First, the Fuzzy SWARA method was applied, as presented in *Tables 6* and *7*. In this method, experts compared the relative importance of each criterion with respect to the preceding criterion. Subsequently, the Best-Worst Method (BWM) was utilized. In the BWM approach, a linear optimization model was solved to determine the final weights of the criteria by minimizing the maximum deviation among pairwise comparisons ( $\min \xi$ ).

**Table 6. Expert ranking of agile marketing strategies in b2b startups.**

| Expert 1 |           | Expert 2 |           | Expert 3 |           | Expert 4 |           | Expert 5 |           | Mean Rank | Rank |
|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|-----------|------|
| Rank     | Criterion | Rank     | Criterion | Rank     | Criterion | Rank     | Criterion | Rank     | Criterion |           |      |
| 9        | A1        | 9        | A1        | 8        | A1        | 8        | A1        | 9        | A1        | 8.60      | 9    |
| 1        | A2        | 2        | A2        | 1        | A2        | 2        | A2        | 1        | A2        | 1.40      | 1    |
| 2        | A4        | 2        | A4        | 1        | A4        | 3        | A4        | 2        | A4        | 2.00      | 2    |
| 7        | A9        | 6        | A9        | 8        | A9        | 7        | A9        | 7        | A9        | 7.00      | 7    |
| 4        | A10       | 5        | A10       | 4        | A10       | 4        | A10       | 5        | A10       | 4.40      | 4    |
| 6        | A6        | 6        | A6        | 5        | A6        | 6        | A6        | 7        | A6        | 6.00      | 6    |
| 8        | A7        | 7        | A7        | 7        | A7        | 8        | A7        | 6        | A7        | 7.20      | 8    |
| 3        | A3        | 3        | A3        | 2        | A3        | 4        | A3        | 3        | A3        | 3.00      | 3    |
| 8        | A8        | 8        | A8        | 7        | A8        | 7        | A8        | 9        | A8        | 7.80      | 10   |
| 5        | A5        | 5        | A5        | 6        | A5        | 6        | A5        | 5        | A5        | 5.40      | 5    |

**Table 7. Comparison of SWARA indices for agile marketing strategies in b2b startups.**

| Ranked Criteria | Expert1 | Expert2 | Expert3 | Expert4 | Expert5 | $S_j$ | $k_j$ | $w_j$ | $q_j$ | Weight Coefficient $\frac{1}{9}$ |
|-----------------|---------|---------|---------|---------|---------|-------|-------|-------|-------|----------------------------------|
| A2              | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000 | 1.000 | 1.000 | 0.241 | 0.02673821                       |
| A4              | 0.150   | 0.200   | 0.250   | 0.300   | 0.350   | 0.250 | 1.250 | 0.800 | 0.192 | 0.021388657                      |
| A3              | 0.250   | 0.200   | 0.250   | 0.200   | 0.250   | 0.230 | 1.230 | 0.650 | 0.157 | 0.017389152                      |
| A10             | 0.300   | 0.350   | 0.250   | 0.300   | 0.350   | 0.310 | 1.310 | 0.496 | 0.119 | 0.013274162                      |
| A5              | 0.200   | 0.250   | 0.300   | 0.350   | 0.400   | 0.300 | 1.300 | 0.382 | 0.092 | 0.010210894                      |
| A6              | 0.400   | 0.350   | 0.300   | 0.250   | 0.200   | 0.300 | 1.300 | 0.294 | 0.071 | 0.007845434                      |
| A9              | 0.300   | 0.350   | 0.300   | 0.250   | 0.200   | 0.280 | 1.280 | 0.230 | 0.055 | 0.006136354                      |
| A7              | 0.400   | 0.450   | 0.400   | 0.350   | 0.300   | 0.380 | 1.380 | 0.166 | 0.040 | 0.004446634                      |
| A8              | 0.200   | 0.150   | 0.200   | 0.300   | 0.200   | 0.210 | 1.210 | 0.137 | 0.033 | 0.003674904                      |

Subsequently, the Fuzzy Best-Worst Method (Fuzzy BWM) was applied. In this method, the experts first identified the best (most important) and worst (least important) criteria. To this end, each expert (three experts participated in this stage) selected the best criterion and the worst criterion (strategy). Thereafter, each strategy was compared pairwise with the best and worst criteria. For this purpose, Questionnaire No. 2 was utilized. *Tables 8, 9, and 10* present the aggregated results from the collected questionnaires for the pairwise comparisons of the best criterion with the other criteria. In contrast, the pairwise comparisons of the worst criterion with the remaining criteria are presented in *Tables 11, 12, and 13*. Subsequently, the pairwise comparison analysis was performed.

**Table 8. Pairwise comparisons of the best criterion with the remaining criteria (expert 1).**

| Best Criterion                                       | Other Key Criteria                                      | BB Value  | Defuzzified Value |
|------------------------------------------------------|---------------------------------------------------------|-----------|-------------------|
| Market responsiveness and rapid adaptation to change | Data-Driven Marketing                                   | (6, 7, 8) | 7                 |
|                                                      | Digital Platform Marketing                              | (5, 6, 7) | 6                 |
|                                                      | Interactive Marketing and Customer Co-creation          | (4, 5, 6) | 5                 |
|                                                      | Agile Innovation in Marketing Processes                 | (6, 7, 8) | 7                 |
|                                                      | Crisis-Driven Agile Marketing                           | (7, 8, 9) | 8                 |
|                                                      | Marketing Automation and Marketing Software Utilization | (5, 6, 7) | 6                 |
|                                                      | Marketing Alignment with Entrepreneurial Growth         | (6, 7, 8) | 7                 |
|                                                      | Learning- and Feedback-Based Marketing Strategies       | (6, 7, 9) | 7.25              |
|                                                      | Startup Empowerment through Strategic Agility           | (4, 5, 6) | 5                 |

**Table 9. Comparison of the best criterion with other criteria (Second expert).**

| Best Criterion                                    | Other Key Criteria                                             | BB Value  | Defuzzified Value |
|---------------------------------------------------|----------------------------------------------------------------|-----------|-------------------|
| Market agility and rapid responsiveness to change | Data-driven marketing                                          | (5, 6, 7) | 6                 |
|                                                   | Digital platform-based marketing                               | (6, 7, 8) | 7                 |
|                                                   | Interactive marketing and customer co-creation                 | (5, 6, 7) | 6                 |
|                                                   | Agile innovation in marketing processes                        | (6, 7, 8) | 7                 |
|                                                   | Marketing in turbulent environments and crises                 | (7, 8, 9) | 8                 |
|                                                   | Utilization of marketing automation and software tools         | (4, 5, 6) | 5                 |
|                                                   | Alignment of marketing with entrepreneurial growth             | (6, 7, 8) | 7                 |
|                                                   | Marketing strategies based on continuous learning and feedback | (6, 6, 7) | 6                 |
|                                                   | Empowering startups through strategic agility                  | (7, 8, 9) | 8                 |

**Table 10. Comparison of the best criterion with other criteria (third expert).**

| Best Criterion                                    | Other Key Criteria                                             | BB Value  | Defuzzified Value |
|---------------------------------------------------|----------------------------------------------------------------|-----------|-------------------|
| Market agility and rapid responsiveness to change | Data-driven marketing                                          | (4, 5, 6) | 5                 |
|                                                   | Digital platform-based marketing                               | (6, 7, 8) | 7                 |
|                                                   | Interactive marketing and customer co-creation                 | (7, 8, 9) | 8                 |
|                                                   | Agile innovation in marketing processes                        | (5, 6, 7) | 6                 |
|                                                   | Marketing in turbulent environments and crises                 | (6, 7, 8) | 7                 |
|                                                   | Utilization of marketing automation and software tools         | (7, 8, 9) | 8                 |
|                                                   | Alignment of marketing with entrepreneurial growth             | (4, 5, 6) | 5                 |
|                                                   | Marketing strategies based on continuous learning and feedback | (6, 7, 8) | 7                 |
|                                                   | Empowering startups through strategic agility                  | (6, 6, 7) | 6                 |

**Table 11. Comparison of the worst criterion with other criteria (First expert)**

| Worst Criterion                                | Other Key Criteria                                             | BW Value  | Defuzzified Value |
|------------------------------------------------|----------------------------------------------------------------|-----------|-------------------|
| Marketing in turbulent environments and crises | Data-driven marketing                                          | (1, 2, 3) | 2                 |
|                                                | Market agility and rapid responsiveness to change              | (1, 2, 3) | 2                 |
|                                                | Digital platform-based marketing                               | (2, 3, 4) | 3                 |
|                                                | Interactive marketing and customer co-creation                 | (3, 4, 5) | 4                 |
|                                                | Agile innovation in marketing processes                        | (2, 3, 4) | 3                 |
|                                                | Utilization of marketing automation and software tools         | (3, 4, 5) | 4                 |
|                                                | Alignment of marketing with entrepreneurial growth             | (2, 3, 4) | 3                 |
|                                                | Marketing strategies based on continuous learning and feedback | (3, 4, 5) | 4                 |
|                                                | Empowering startups through strategic agility                  | (4, 5, 6) | 5                 |

**Table 12. Comparison of the worst criterion with other criteria (second expert).**

| Worst Criterion                                | Other Key Criteria                                             | BW Value  | Defuzzified Value |
|------------------------------------------------|----------------------------------------------------------------|-----------|-------------------|
| Marketing in turbulent environments and crises | Data-driven marketing                                          | (3, 4, 5) | 4                 |
|                                                | Market agility and rapid responsiveness to change              | (2, 3, 4) | 3                 |
|                                                | Digital platform-based marketing                               | (3, 4, 5) | 4                 |
|                                                | Interactive marketing and customer co-creation                 | (2, 3, 4) | 3                 |
|                                                | Agile innovation in marketing processes                        | (2, 3, 4) | 3                 |
|                                                | Utilization of marketing automation and software tools         | (3, 4, 5) | 4                 |
|                                                | Alignment of marketing with entrepreneurial growth             | (4, 5, 6) | 5                 |
|                                                | Marketing strategies based on continuous learning and feedback | (3, 4, 5) | 4                 |
|                                                | Empowering startups through strategic agility                  | (2, 3, 4) | 3                 |

**Table 13. Comparison of the worst criterion with other criteria (third expert).**

| Worst Criterion                                | Other Key Criteria                                             | BW Value  | Defuzzified Value |
|------------------------------------------------|----------------------------------------------------------------|-----------|-------------------|
| Marketing in turbulent environments and crises | Data-driven marketing                                          | (3, 4, 5) | 4                 |
|                                                | Market agility and rapid responsiveness to change              | (2, 3, 4) | 3                 |
|                                                | Digital platform-based marketing                               | (3, 4, 5) | 4                 |
|                                                | Interactive marketing and customer co-creation                 | (2, 3, 4) | 3                 |
|                                                | Agile innovation in marketing processes                        | (2, 3, 4) | 3                 |
|                                                | Utilization of marketing automation and software tools         | (2, 3, 4) | 3                 |
|                                                | Alignment of marketing with entrepreneurial growth             | (3, 4, 5) | 4                 |
|                                                | Marketing strategies based on continuous learning and feedback | (3, 4, 5) | 4                 |
|                                                | Empowering startups through strategic agility                  | (2, 3, 4) | 3                 |

Using the formulation of the Best–Worst Method and the importance of the best criterion and the worst criterion relative to the other criteria, the importance weight of each criterion is presented in *Table 4-14*.

**Table 14. Assigned importance weight of each criterion.**

| Key Criterion                                     | Importance Weight |
|---------------------------------------------------|-------------------|
| Data-driven marketing                             | 0.063             |
| Market agility and rapid responsiveness to change | 0.074             |
| Digital platform-based marketing                  | 0.085             |
| Interactive marketing and customer co-creation    | 0.065             |
| Agile innovation in marketing processes           | 0.067             |
| Marketing in turbulent environments and crises    | 0.066             |

**Step 4. Final Integrated Ranking:** To obtain a unified, stable, and reliable ranking, the results derived from the SWARA and BWM methods were integrated using the Copeland Method. In this approach, the average of the rankings from both methods was calculated, and the final priority of each strategy was determined based on this average. The interpretation of the results is such that the lower the integrated priority value, the greater the importance of the criterion and its tendency to be placed in higher ranks.

**Table 15. Priority ranking of the criteria.**

| Key Criterion                                                  | Priority |
|----------------------------------------------------------------|----------|
| Data-driven marketing                                          | First    |
| Market agility and rapid responsiveness to change              | Fifth    |
| Digital platform-based marketing                               | Seventh  |
| Interactive marketing and customer co-creation                 | Second   |
| Agile innovation in marketing processes                        | Fourth   |
| Marketing in turbulent environments and crises                 | Third    |
| Utilization of marketing automation and software tools         | Sixth    |
| Alignment of marketing with entrepreneurial growth             | Eighth   |
| Marketing strategies based on continuous learning and feedback | Tenth    |
| Empowering startups through strategic agility                  | Ninth    |

**Table 16. Final integrated ranking of the criteria.**

| Key Criterion                                                  | BWM Ranking | SWARA Ranking | Integrated Priority | Final Ranking |
|----------------------------------------------------------------|-------------|---------------|---------------------|---------------|
| Data-driven marketing                                          | First       | Tenth         | 6.5                 | Sixth         |
| Market agility and rapid responsiveness to change              | Fifth       | First         | 3                   | Second        |
| Digital platform-based marketing                               | Seventh     | Third         | 5                   | Fifth         |
| Interactive marketing and customer co-creation                 | Second      | Second        | 2                   | First         |
| Agile innovation in marketing processes                        | Fourth      | Fifth         | 4.5                 | Third         |
| Marketing in turbulent environments and crises                 | Third       | Sixth         | 4.5                 | Fourth        |
| Utilization of marketing automation and software tools         | Sixth       | Seventh       | 6.5                 | Seventh       |
| Alignment of marketing with entrepreneurial growth             | Eighth      | Eighth        | 8                   | Ninth         |
| Marketing strategies based on continuous learning and feedback | Tenth       | Ninth         | 9.5                 | Tenth         |
| Empowering startups through strategic agility                  | Ninth       | Fourth        | 6.5                 | Eighth        |

Based on *Tables 4 and 5* (Priority Ranking of Criteria Importance), the results indicate that criteria related to data, customer interaction, and managing turbulent conditions are most important within the framework under investigation. In contrast, more structural and long-term approaches receive lower priority. The interpretation and discussion of these findings are as follows: Data-Driven Marketing ranks first, highlighting the pivotal role of data, advanced analytics, and evidence-based decision-making in marketing success, particularly in dynamic and competitive environments. This finding suggests that organizations must rely on accurate and up-to-date data to maintain a competitive advantage. Ranked second and third are Interactive Marketing and Customer Co-Creation and Marketing in Turbulent Environments and Crises, respectively. indicates that active customer engagement and the ability to manage crises and uncertainty are key factors in the effectiveness of marketing strategies. Particularly in conditions of market volatility, flexibility and customer participation in value creation become increasingly important. Agile Innovation in Marketing Processes, ranked fourth, and Market Agility and Rapid Responsiveness to Change, ranked fifth, indicate that agility- both at the process level and in responding to market changes- is a critical requirement of modern marketing. However, these factors receive lower priority than data-driven approaches and customer interaction. At the middle and lower priority levels, criteria such as the use of marketing automation and software tools (ranked sixth) and digital platform-based marketing (ranked seventh) are positioned. This finding may indicate that although digital tools and technologies are essential, they do not, by themselves, create a competitive advantage; rather, they function primarily as supporting infrastructure for other marketing approaches. Finally, criteria such as aligning marketing with entrepreneurial growth, empowering startups through strategic agility, and using continuous learning and feedback in marketing strategies ranked eighth through tenth. It suggests that although these factors are important in the long term, experts perceive them as having a less direct and immediate impact on marketing performance at the present stage compared to the other criteria. Overall, the prioritization results indicate that the primary focus should be on data-driven decision-making, customer engagement, and managing uncertainty. The remaining criteria play complementary and supportive roles in enhancing the effectiveness of marketing strategies.

Based on the research findings and the final prioritization of agile marketing strategies in B2B startups, the following recommendations are presented at two levels: practical applications and future directions.

## 4 | Practical Recommendations

Given that the strategy of interactive marketing and customer co-creation achieved the highest rank in the integrated prioritization, managers of B2B startups are advised to design their marketing processes in a way that enables key customers to actively participate in product design, service development, and the refinement of the value proposition. This approach can strengthen customer loyalty, reduce market uncertainty, and improve product-market fit.

Since market agility and rapid responsiveness to change ranked second, B2B startups should institutionalize the capability to respond swiftly to changes in customer needs, competitor actions, and technological developments. This argument can be achieved by establishing agile marketing teams, shortening decision-making cycles, and continuously monitoring market dynamics as integral components of the organizational structure. Given agile innovation's high ranking in the marketing process (third place), startups should adopt trial-and-error approaches, run small, easily adjustable marketing campaigns, and use rapid prototyping in their marketing activities. These practices can help reduce the risk of failure while enabling faster learning and adaptation. The Fuzzy Best–Worst Method (FBWM) results indicated that data-driven marketing is the most important. Therefore, startups should leverage data analytics tools, Customer Relationship Management (CRM) systems, and business intelligence solutions to analyze customer behavior and optimize marketing decisions. Given the high importance of “marketing in turbulent environments and crises,” which ranked fourth, it is recommended that startups develop contingency marketing programs for crisis conditions such as economic fluctuations, regulatory changes, or market shocks. Effective use of digital platforms such as LinkedIn, B2B marketplaces, and content marketing tools can strengthen engagement with organizational

customers and reduce customer acquisition costs. It is also recommended that startups use marketing automation software to intelligently and agilely execute processes such as lead follow-up, message personalization, and campaign management. Managers of B2B startups should ensure that marketing activities are aligned with growth, scalability, and market expansion objectives, and are not limited solely to short-term promotional actions. Finally, it is recommended that organizations establish formal systems for collecting customer feedback, analyzing campaign results, and enabling organizational learning so agile marketing becomes a sustainable capability.

## 5 | Future Recommendations

It is suggested that in future research, the identified framework of agile marketing strategies be validated using Structural Equation Modeling (SEM) methods such as PLS-SEM or CB-SEM, and the causal relationships between strategies and performance outcomes be examined. Future studies can also analyze the relationship between priority strategies (such as interactive marketing and market agility) and indicators such as sales growth, customer satisfaction, competitive advantage, and organizational survival. Comparative studies between B2B and B2C startups are recommended to identify similarities and differences in agile marketing patterns in these contexts. Future research may also examine how factors such as startup size, lifecycle stage, industry type, and market competition intensity affect the importance of agile marketing strategies. Longitudinal studies can analyze changes in the prioritization of agile marketing strategies across different stages of startup growth.

Additionally, future research can employ methods such as fuzzy VIKOR, fuzzy DEMATEL, fuzzy ANP, or fuzzy MARCOS to compare results with SWARA and BWM methods. It is recommended to examine the impact of technologies such as artificial intelligence, machine learning, and big data analytics on the effectiveness of agile marketing strategies in B2B startups. Qualitative research (such as grounded theory or thematic analysis) can help identify hidden dimensions and behavioral factors influencing agile marketing implementation. Finally, given the specific economic, institutional, and technological conditions, it is recommended that researchers design and test localized models of agile marketing for B2B startups in Iran. Future research should also focus on identifying organizational, cultural, technological, and human resource barriers to implementing agile marketing in B2B startups.

## 6 | Research limitations

Because decision-making methods rely on expert opinions, changes in the composition of experts may affect the research results. Therefore, this is the study's main limitation.

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## Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

## Conflicts of Interest

The authors declare no conflict of interest.

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