

## ARTICLE

A systematic framework for business  
model enhancement to foster corporate  
entrepreneurship and innovationSaeed Safari<sup>1\*</sup>, Sayyed Hossein Hakimzadeh Hosseini<sup>2</sup>, and Zahra Ebrahimi Ardekani<sup>3</sup><sup>1</sup>Industrial Management Department, Faculty of Governance, Shahed University, Tehran, Iran<sup>2</sup>Entrepreneurship Department, Science and Research Branch, Islamic Azad University, Tehran, Iran<sup>3</sup>Industrial Management Department, Faculty of Management and Economic, Shahid Beheshti University, Tehran, Iran

## Abstract

Corporate entrepreneurship is crucial for fostering adaptability and innovation in today's dynamic business landscape. This research focuses on enhancing business models (BMs) as catalysts for transformation and innovation, using a systematic approach that integrates Frankenger's 4I framework with De Reuver's business model roadmap. Through a four-phase methodology—ecosystem analysis, ideation, integration, and implementation—this study refines BMs within a defined case context. A case study of Gold Gallery, a traditional gold retail enterprise, demonstrates the methodology's practical utility. By applying the framework, four tailored business models were developed to address context-specific challenges. The study supports the model's robustness through expert panel evaluations. This research contributes to corporate entrepreneurship literature by delineating a systematic, repeatable process for BM-driven innovation. While the single industry case provides contextual richness, future research should explore cross sector applicability and long term performance impacts.

**Keywords:** Corporate entrepreneurship; Business model innovation; Systematic approach; Dynamic capabilities; Transformation

**\*Corresponding author:**Saeed Safari  
(safari@shahed.ac.ir)

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## 1. Introduction

In today's volatile business environment—characterized by rapid technological change and market disruptions—corporate entrepreneurship (CE) has become essential for organizational adaptability, innovation, and sustained growth. CE represents the entrepreneurial mindset, behaviors, and activities within established firms, enabling them to explore new opportunities, challenge the status quo, and drive strategic renewal beyond their existing boundaries (Morris *et al.*, 2011; Zahra, 1991). Static organizations risk obsolescence; those embracing CE are better positioned to navigate environmental uncertainty.

Crucially, CE requires a structured vehicle. Business models (BMs)—defined as frameworks for creating, delivering, and capturing value (Osterwalder & Pigneur,

2010)—are central to this endeavor. They simultaneously enable and constrain innovation by defining processes, customer interactions, and resource allocation (Morris *et al.*, 2005). Therefore, enhancing the BM is pivotal for realizing CE's potential.

However, existing literature suffers from a critical gap: while many studies advocate BM innovation (BMI) for CE, they rarely provide a systematic, stepbystep methodology that integrates both strategic ideation and operational implementation. Prior works either focus on highlevel BMI principles (Foss & Saebi, 2016) or on isolated tools such as the BM Canvas (BMC; Osterwalder & Pigneur, 2010), without a clear process that guides firms from diagnosis to execution. Moreover, the theoretical tension lies in the fact that CE requires simultaneous exploration (new opportunities) and exploitation (existing efficiencies) (Tandon *et al.*, 2024); however, most BMI frameworks address only one dimension. The present study addresses this tension by explicitly integrating two complementary frameworks: Frankenger's 4I (which emphasizes creative ideation and strategic alignment; Frankenger *et al.*, 2013) and De Reuver's roadmap (which focuses on backcasting and implementation; De Reuver *et al.*, 2013). Thus, our research is positioned within the dynamic capabilities literature (Teece, 2007), as BMI represents a dynamic capability that enables sensing, seizing, and transforming.

This study seeks to address the following research questions:

- (i) How can CE be systematically realized through BM refinement?
- (ii) What role does the integration of the 4I framework and De Reuver's roadmap play in driving entrepreneurial transformation?
- (iii) How can this structured BMI approach be adapted to specific industrial contexts (e.g., traditional gold retail)?

By addressing these questions, we offer a novel, replicable methodology that bridges the "ideation–implementation gap" in BMI research.

## 2. Literature review

### 2.1. Corporate entrepreneurship

Corporate entrepreneurship (or intrapreneurship) encapsulates an organization's capacity to foster entrepreneurial spirit internally. It involves pursuing innovation, identifying new opportunities, and taking calculated risks to achieve growth and competitiveness (Kuratko *et al.*, 2014). CE is increasingly vital for navigating disruptions and driving strategic renewal (Tandon *et al.*,

2024). Core to CE is proactively responding to opportunities outside current activities (Zahra, 1991; Wolcott & Lippitz, 2010), encompassing product/process innovation, market venturing, and organizational rejuvenation (Kuratko & Audretsch, 2013). A seminal debate in the field concerns whether CE is a firmlevel orientation or a set of discrete behaviors; we adopt the integrative view that CE requires both a supportive internal environment and structured processes (Morris *et al.*, 2011).

### 2.2. Business model innovation

Business model innovation—the strategic modification of a firm's value creation, delivery, and capture mechanisms—is critical for sustaining competitiveness (Clauss *et al.*, 2020; Foss & Saebi, 2016; Kraus *et al.*, 2020). It involves reconfiguring BM components (e.g., activities, resources, and partnerships) (Dymitrowski & Mielcarek, 2021; Reim *et al.*, 2020). A key theoretical debate concerns whether BMI is an outcome or a process; we treat it as a dynamic process that firms can systematically manage (Kanbach *et al.*, 2024). The BMC (Osterwalder & Pigneur, 2010) is a dominant tool for analysis, but it is limited in capturing temporal evolution. Thus, scholars have called for process models that guide BMI over time (Frankenger *et al.*, 2013).

### 2.3 Theoretical foundation: Dynamic capabilities

The most appropriate theoretical lens for this study is dynamic capabilities—the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece, 2007). BMI is a manifestation of dynamic capability processes, specifically the sensing (identifying opportunities), seizing (mobilizing resources to capture value), and transforming (continuous renewal) routines. While previous CE research has referenced dynamic capabilities, few have operationalized them through a detailed BMI process. Our integrated framework operationalizes these three microfoundations: (i) ecosystem analysis (sensing), (ii) ideation and integration (seizing), and (iii) implementation (transforming).

### 2.4 Integrated framework: Frankenger's 4I and De Reuver's roadmap

Frankenger's 4I framework (initiation, ideation, integration, and implementation) provides a structured fourphase process for BM transformation (Frankenger *et al.*, 2013). However, it lacks detailed guidance on how to translate strategic changes into operational steps. De Reuver's BM roadmap (De Reuver *et al.*, 2013) fills this gap by using backcasting to develop practical transition plans from a desired future state. The integration of these two

frameworks provides a structured approach that addresses both the strategic (what to change) and operational (how to change) dimensions of BMI, specifically tailored to enable CE within organizations operating in dynamic environments. To the best of our knowledge, no prior study has combined these two frameworks into a single methodology.

### 3. Methodology

#### 3.1. Research design and justification

This study employs a qualitative, processoriented single case study design (Yin, 2018). A single case is justified for three reasons: (i) the research aims to develop and demonstrate a novel framework in depth; (ii) Gold Gallery represents a revelatory case (traditional small-to-medium-sized enterprise [SME] in a highly traditional industry seeking digital transformation and entrepreneurial renewal); and (iii) the study provides rich, longitudinal process data that would be difficult to obtain across multiple cases at this initial theorybuilding stage (Eisenhardt, 1989). Generalizability is not claimed; rather, analytical generalization to theory is intended.

#### 3.2. Case selection and population

The population is defined as SMEs operating in the traditional gold and jewelry retail sector in Iran. Gold Gallery was selected purposively because (i) it had not previously engaged in systematic BMI, (ii) it faced competitive pressures from both international (e.g., Tiffany & Co.) and domestic players, and (iii) its management was willing to participate in a multimonth transformation process. No random sampling was used; this is consistent with qualitative case study research, where theoretical rather than statistical representativeness is pursued.

#### 3.3. Data collection

Data were collected over a period of six months using multiple sources to ensure triangulation:

- (i) Semistructured interviews: A total of 12 interview sessions were conducted with key stakeholders (including owners, managers, sales staff, and five loyal customers). Interviews lasted 45–90 minutes and were recorded, transcribed, and coded thematically.
- (ii) Document analysis: Internal sales reports, customer feedback logs, and competitor websites were examined.
- (iii) Benchmarking analysis: Five international brands (Todd Reed, LVMH, Harry Winston, Tiffany & Co., and David Yurman) and eight domestic competitors were analyzed using publicly available information.
- (iv) Expert panel: Seven experts (academics in strategy/innovation and senior industry practitioners)

evaluated the proposed framework via a structured questionnaire.

#### 3.4. Data analysis and validity

Data analysis followed a systematic coding procedure: open coding (to identify areas for improvement), axial coding (to categorize identified themes into BM components), and selective coding (to develop four proposed BM models). To ensure credibility (internal validity), we used investigator triangulation (two researchers independently coded data) and member checking (findings reviewed by the chief executive officer of Gold Gallery). Dependability (reliability) was enhanced by maintaining a case study database and a detailed audit trail. Transferability is limited but can be assessed by readers through the thick description provided in this study.

#### 3.5. Justification of analytical tools

- (i) Decision matrix analysis was chosen because it provides a transparent, criteria-based method to prioritize multiple BM alternatives, reducing decision bias. Criteria (feasibility, market impact, alignment with CE goals) were derived from literature and expert input.
- (ii) The expert panel was used for external assessment of the overall approach. The panel assessed the framework on six dimensions (alignment with goals, methodological rigor, practical applicability, stakeholder engagement, innovation, and decision transparency) using a sixpoint Likert scale. This mixedmethods design (qualitative case + quantitative expert ratings) strengthens the validity of the conclusions.

#### 3.6. The fourphase process

The study follows a systematic four-phase approach to BMI, aligned with the stages of the integrated framework:

- (i) Ecosystem analysis: A comprehensive evaluation of Gold Gallery's current business model using tools such as the BMC, stakeholder interviews, and competitor analysis. This phase identifies key areas for innovation, such as customer engagement, sales channels, and product diversification.
- (ii) Ideation: Stakeholders participate in brainstorming sessions to generate innovative business model concepts. Ideas explored include digital transformation, personalized customer services, and the introduction of complementary product lines.
- (iii) Integration: The proposed ideas are synthesized into four business model prototypes. Each model is evaluated for its feasibility and potential to drive CE,

using tools such as decision matrix analysis.

- (iv) **Implementation:** A detailed roadmap is developed to guide the execution of the prioritized business models. This includes milestones, key activities, and resource allocation, ensuring that the innovations are systematically implemented.

The conceptual framework (Figure 1) illustrates the systematic steps of the methodology, providing a visual representation of the ecosystem analysis, ideation, integration, and implementation phases. It serves as a guide for researchers and entrepreneurs to navigate the process of business model enhancement and corporate entrepreneurship development effectively.

## 4. Results

### 4.1. Existing business model identification

Using the BMC, Gold Gallery's current BM was mapped (Figure 2). Customer segmentation (Figure 3) revealed three main segments: highnetworth individuals, gift buyers, and tourists. Value propositions centered on product authenticity and design, but postsales services were limited.

### 4.2. Areas for improvement

Stakeholder interviews and competitor benchmarking identified five priority areas: (i) weak digital presence, (ii) lack of aftersales service, (iii) limited product diversification, (iv) limited customer engagement, and (v)

absence of a systematic feedback mechanism. Domestic competitors offered features such as online customization and loyalty programs (Table 1).

### 4.3. Proposed business models

Based on the identified gaps, four BM prototypes were designed:

- (i) **Model A (business-to-business-to-consumer [B2B2C]):** Selling through intermediary organizations (e.g., hotels and corporate gift resellers) to enhance brand visibility. Key pillars include a customer club, special occasion packages, and service cards (Table 2).
- (ii) **Model B (direct business-to-consumer [B2C]):** Direct sales via branches, social media, and website (Table 3).
- (iii) **Model C (aftersales services):** Repair, usedgold purchase, and advisory services (Table 4).
- (iv) **Model D (complementary goods):** Gold combined with Iranian handicrafts (e.g., miniature art and inlay), and special packaging (Table 5).

### 4.4. Prioritization results

Using a weighted scoring method based on indicators derived from the BMC, Model A (B2B2C) ranked highest (with a score of 8.10), followed by Model D (complementary goods; 7.56). Direct B2C scored lowest (6.90) and was not recommended (Table 6). This prioritization reflects the case-specific market context, where intermediaries provide trust and reach.

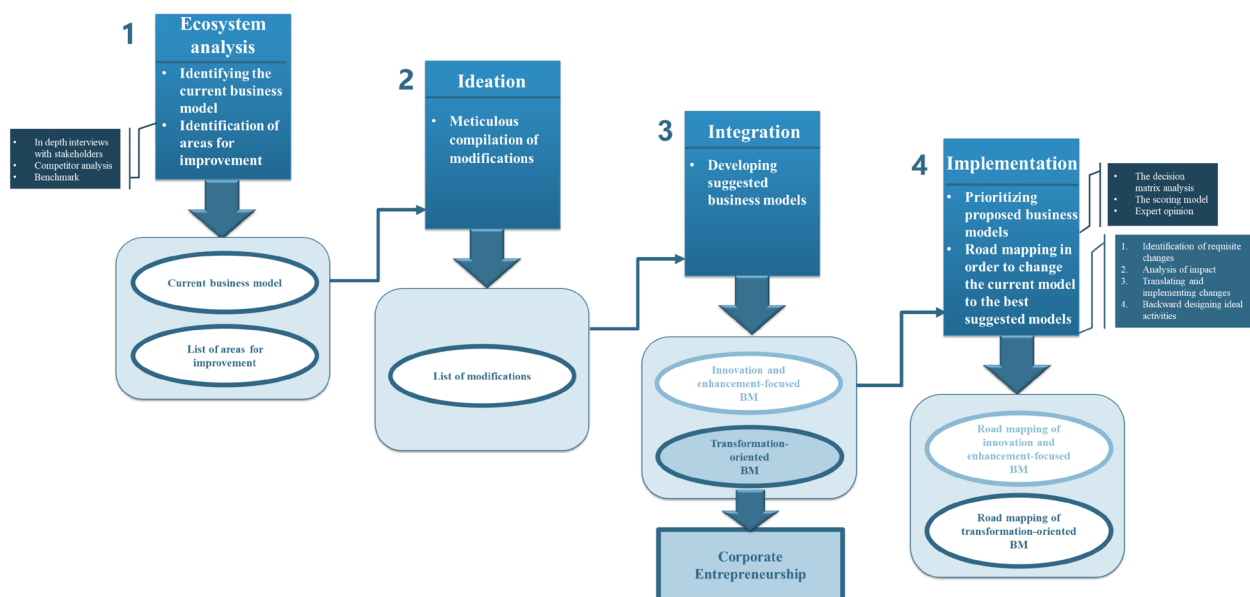


Figure 1. Systematic model for business model enhancement and the pathway to corporate entrepreneurship

|                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Key partners</b> <ul style="list-style-type: none"><li>• Strategic alliance: Yas San</li><li>• Buyer and supplier relationships: Some loyal customers, purchasing from competitors</li><li>• Collaboration with competitors: partnering with some competitors to meet customer needs</li></ul> | <b>Key activities</b> <ul style="list-style-type: none"><li>• Financial procurement</li><li>• Maintaining credibility and positive reputation</li><li>• Order placement and continuous production</li></ul> <b>Key resources</b> <ul style="list-style-type: none"><li>• Physical resources: store locations</li><li>• Intellectual resources: brand management</li><li>• Human resources: workforce</li><li>• Financial resources: cash reserves</li><li>• Social resources: credibility and reputation</li></ul> | <b>Value propositions</b> <ul style="list-style-type: none"><li>• Performance: feedback and improvement of product performance in interaction with Yas San</li><li>• Design: considering customer needs</li><li>• Brand: providing samples according to foreign brands</li><li>• Price: lowest price guarantee</li></ul> | <b>Customer relationships</b> <ul style="list-style-type: none"><li>• Personal assistance: supporting customers in the purchase process</li><li>• Physical self-service</li></ul> <b>Channels</b> <ul style="list-style-type: none"><li>• Direct: face-to-face interactions, telesales</li><li>• Non-direct: sales through retailer</li><li>• Owned by the company: store branches</li><li>• Advertising: social networks, catalogues, and brochures</li><li>• After-sales service: addressing bottlenecks in customer support</li><li>• Purchase and delivery: available by phone and in person</li></ul> | <b>Customer segments</b> <ul style="list-style-type: none"><li>• Shopkeepers</li></ul> |
| <b>Cost structure</b> <ul style="list-style-type: none"><li>• Fixed costs: minimum monthly fixed purchases</li><li>• Variable costs: based on sales</li><li>• Upstream costs: headquarters and advertising</li><li>• Unpredictable costs: non-receipt of goods</li></ul>                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                          | <b>Revenue streams</b> <ul style="list-style-type: none"><li>• Sales of products and services</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                        |

**Figure 2.** Business model canvas of Gold Gallery's current model



**Figure 3.** Customer segmentation framework

**Table 1. Features and innovations of domestic competitors in the Iranian gold market**

| Competitor | Features and innovations                                               |                                                                                                                                                                                                                                                                                                                                                              |
|------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1          | (i)<br>(ii)<br>(iii)<br>(iv)<br>(v)<br>(vi)<br>(vii)                   | Variety of products and product customization<br>Installment purchases through reputable joint ventures<br>Standard and transparent product specifications<br>Clear gold pricing calculations<br>Valid invoice with detailed purchase information<br>Ability to differentiate and purchase within various price ranges<br>Option to compare similar products |
| 2          | (i)<br>(ii)<br>(iii)<br>(iv)<br>(v)<br>(vi)<br>(vii)<br>(viii)<br>(ix) | Designing unique names and logos<br>Two-day return guarantee<br>Fair pricing within the market<br>Attractive packaging<br>Seven-day replacement guarantee<br>Presenting up-to-date collections<br>Three-year warranty for repairs and color replacement<br>Free and fast nationwide delivery<br>24/7 customer support and responsiveness                     |
| 3          | (i)<br>(ii)<br>(iii)<br>(iv)<br>(v)                                    | Option for bulk purchasing as business-to-business wholesale<br>Free shipping<br>Payment upon delivery available in Tehran<br>Ability to differentiate and purchase products within specific price ranges<br>Offering renowned brands and collections                                                                                                        |
| 4          | (i)<br>(ii)<br>(iii)<br>(iv)                                           | Festivals and attractive gifts<br>Ability to change or cancel an order within one hour of placing it<br>Cash on delivery in Tehran if 30% of the order is prepaid<br>Availability of unique, fantasy-style designs                                                                                                                                           |
| 5          | (i)<br>(ii)<br>(iii)<br>(iv)                                           | Custom bracelet creation<br>Launch of the Iran Bano campaign in alignment with Corporate Social Responsibility<br>Collaboration with banks<br>Size guide assistance                                                                                                                                                                                          |
| 6          | (i)<br>(ii)<br>(iii)<br>(iv)                                           | Both online and in-person sales<br>Establishment of retail stores in shopping centers<br>A fusion of Iranian handicrafts and modern design<br>Providing comprehensive product specifications and information                                                                                                                                                 |
| 7          | (i)<br>(ii)<br>(iii)<br>(iv)                                           | Variety of products covering almost all gold and jewelry-related items<br>Extensive expertise in the gold and jewelry industry<br>Independent sales of gemstones and diamonds, separate from gold<br>A comprehensive website with up-to-date information                                                                                                     |
| 8          | (i)<br>(ii)<br>(iii)<br>(iv)<br>(v)                                    | Crafting jewelry based on customer designs<br>Offering low-cost gold<br>Selling gold and jewelry with options for modification<br>Selling on installments<br>Offering unique, special designs                                                                                                                                                                |

**Table 2. Key pillars of the proposed Model A (B2B2C) for Gold Gallery**

| Main elements          | Items            |                                                                                                           |
|------------------------|------------------|-----------------------------------------------------------------------------------------------------------|
| Customer segments      | (i)              | Shopkeepers                                                                                               |
|                        | (ii)             | Final buyers of jewelry                                                                                   |
| Customer relationships | (i)              | Product design according to customer needs                                                                |
|                        | (ii)             | Receiving customer feedback (through stores)                                                              |
|                        | (iii)            | Customer loyalty program (stores and buyers)                                                              |
| Channels               | (i)              | Direct channel: Face-to-face sales through the store's branches                                           |
|                        | (ii)             | Indirect channels: sales through stores                                                                   |
|                        | (iii)            | Website deployment (information and customer loyalty program)                                             |
| Value propositions     | (i)              | Innovative design according to market needs                                                               |
|                        | (ii)             | Providing special occasion packages                                                                       |
|                        | (iii)            | Providing product specifications with its logo                                                            |
|                        | (iv)             | Offering all kinds of discounts (e.g., repeat purchase, purchase volume) based on customer loyalty points |
|                        | (v)              | Installment sales to stores based on customer loyalty points                                              |
| Key activities         | (i)              | Feedback from the market to design products according to customer needs                                   |
|                        | (ii)             | Setting up and supporting the customer loyalty program                                                    |
|                        | (iii)            | Creating product specifications                                                                           |
| Revenue streams        | Selling products |                                                                                                           |

**Table 3. Key pillars of the proposed Model B (B2C) for Gold Gallery**

| Main elements          | Items            |                                                                                                           |
|------------------------|------------------|-----------------------------------------------------------------------------------------------------------|
| Customer segments      | (i)              | Shopkeepers                                                                                               |
|                        | (ii)             | Final buyers of jewelry                                                                                   |
| Customer relationships | (i)              | Product design according to customer needs                                                                |
|                        | (ii)             | Receiving customer feedback (through stores)                                                              |
|                        | (iii)            | Customer loyalty program (stores and buyers)                                                              |
| Channels               | (i)              | Direct channel: Face-to-face sales through the store's branches                                           |
|                        | (ii)             | Indirect channels: sales through stores                                                                   |
|                        | (iii)            | Website deployment (information and customer loyalty program)                                             |
| Value propositions     | (i)              | Innovative design according to market needs                                                               |
|                        | (ii)             | Providing special occasion packages                                                                       |
|                        | (iii)            | Providing product specifications with its logo                                                            |
|                        | (iv)             | Offering all kinds of discounts (e.g., repeat purchase, purchase volume) based on customer loyalty points |
|                        | (v)              | Installment sales to stores based on customer loyalty points                                              |
| Key activities         | (i)              | Feedback from the market to design products according to customer needs                                   |
|                        | (ii)             | Setting up and supporting the customer loyalty program                                                    |
|                        | (iii)            | Creating product specifications                                                                           |
| Revenue streams        | Selling products |                                                                                                           |

**Table 4. Key pillars of the proposed Model C for developing the current model through after-sales services**

| Main elements          | Items                                                                          |                                                                                                             |
|------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Customer segments      | (i)<br>(ii)                                                                    | Final buyers of gold and jewelry (luxury brands)<br>Stores                                                  |
| Customer relationships | Consultation with customers regarding buying, selling, and repairing used gold |                                                                                                             |
| Channels               | (i)<br>(ii)<br>(iii)                                                           | Stores<br>Official stores for after-sales services<br>Website and social media                              |
| Value propositions     | (i)<br>(ii)                                                                    | Reducing customer costs through the purchase of used gold and gold repairs<br>Reducing risk for gold buyers |
| Key activities         | (i)<br>(ii)                                                                    | Providing warranty services and repairs for gold<br>Buying and selling used gold and jewelry                |
| Revenue streams        | (i)<br>(ii)                                                                    | Buying and selling used gold and jewelry<br>Warranty services and repairs                                   |
| Key resources          | (i)<br>(ii)                                                                    | Repair and warranty equipment<br>Repair specialists                                                         |
| Key partners           | Buyer and supplier type: Sellers of gold accessories (e.g., locks)             |                                                                                                             |
| Cost streams           | Equipment and supplies for gold repair                                         |                                                                                                             |

**Table 5. Key pillars of the proposed business model (Model D) for developing the current business model through the sale of complementary goods**

| Main elements          | Items                                                   |                                                                                                                 |
|------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Customer segments      | Gold and jewelry stores                                 |                                                                                                                 |
| Customer relationships | Obtaining feedback from customers and clients           |                                                                                                                 |
| channels               | (i)<br>(ii)<br>(iii)                                    | Stores<br>Online website sales<br>Social media sales                                                            |
| Value propositions     | (i)<br>(ii)<br>(iii)                                    | Combined packages of gold and handicrafts<br>New applications with emphasis on handicrafts<br>Special packaging |
| Key activities         | (i)<br>(ii)<br>(iii)<br>(iv)                            | Designing packages and bundles<br>Modeling after top samples<br>Sourcing handicrafts<br>Producing packages      |
| Revenue streams        | Selling gold and jewelry accessories                    |                                                                                                                 |
| Key resources          | Exclusive designers                                     |                                                                                                                 |
| Key partners           | Prominent brands in the field of complementary products |                                                                                                                 |
| Cost streams           | Procurement and production of complementary products    |                                                                                                                 |

**Table 6. Prioritization of proposed business models**

| Elements               | Title                                                       | Weight | Selling products in B2B2C (Model A) | Selling products in B2C (Model B) | Developing the current model through after-sales service and warranty (Model C) | Development of the current model through the sale of complementary goods (Model D) |
|------------------------|-------------------------------------------------------------|--------|-------------------------------------|-----------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Customer segments      | Appropriate market share in B2C                             | 3      | 7                                   | 10                                | 6                                                                               | 4                                                                                  |
|                        | Appropriate market share in B2B                             | 5      | 9                                   | 4                                 | 10                                                                              | 10                                                                                 |
|                        | Customer revenue value                                      | 4      | 10                                  | 5                                 | 9                                                                               | 9                                                                                  |
|                        | Customer diversity and variety                              | 3      | 8                                   | 10                                | 4                                                                               | 5                                                                                  |
| Customer relationships | Customer loyalty level                                      | 5      | 9                                   | 9                                 | 8                                                                               | 6                                                                                  |
|                        | Ability to meet customer needs                              | 3      | 8                                   | 5                                 | 7                                                                               | 9                                                                                  |
| Value propositions     | Availability of value-generating operational infrastructure | 3      | 9                                   | 9                                 | 9                                                                               | 9                                                                                  |
|                        | Competitive imitation difficulty by competitors             | 4      | 4                                   | 7                                 | 4                                                                               | 9                                                                                  |
|                        | Importance of offered values for Customers                  | 3      | 8                                   | 8                                 | 10                                                                              | 6                                                                                  |
|                        | Creating differentiation leading to customer selection      | 4      | 6                                   | 8                                 | 7                                                                               | 10                                                                                 |
| Channels               | Diversity of feasible channels                              | 4      | 8                                   | 10                                | 7                                                                               | 5                                                                                  |
|                        | Addressing customer needs through channels                  | 5      | 7                                   | 7                                 | 7                                                                               | 7                                                                                  |
| Revenue streams        | Variety of revenue sources                                  | 7      | 9                                   | 7                                 | 9                                                                               | 10                                                                                 |
|                        | Opportunity for increased revenue                           | 10     | 9                                   | 4                                 | 7                                                                               | 6                                                                                  |
| Total                  |                                                             |        | 8.10                                | 6.90                              | 7.52                                                                            | 7.56                                                                               |

Abbreviations: B2B: Business-to-business; B2B2C: Business-to-business-to-consumer; B2C: Business-to-consumer.

## 4.5. Implementation roadmaps

(a) For Model A (B2B2C)

- (i) Required changes: Redefine customer segments to include “corporate gift buyers”; add new channels (e.g., business-to-business [B2B] sales force); and establish a customer club with points for participating stores and end customers.
- (ii) Key macroactivities (reverseengineered):
  - Train B2B sales team.
  - Develop a website with a dedicated store section.
  - Design special occasion packages (for weddings and anniversaries).
  - Implement feedback system.
  - Timeline: 0–3 months (preparation), 3–6 months (pilot with five partner stores), and 6–12 months (full rollout).

(b) For Model D (complementary goods)

- (i) Required changes: New customer segment “heritageconscious buyers” and new value proposition of “cultural fusion.” Key activities include design partnerships with local handicraft artisans.
- (ii) Macroactivities:
  - Identify top artisans.
  - Design 10 pilot products.
  - Create special packaging.
  - Launch on website and in select branches.
  - Timeline: 0–4 months (design and sourcing), 4–8 months (pilot), and 8–12 months (scale).

## 4.6. Expert panel evaluation

The seven experts evaluated the systematic approach. Average scores were as follows: alignment with goals (5.4/6; 90%), methodological rigor (5.1/6; 85%), practical applicability (5.3/6; 88%), stakeholder engagement (5.6/6; 93%), innovation (5.7/6; 95%), and decision transparency (5.2/6; 87%). Total scores ranged from 80.3% to 95.6% of the maximum possible. No score fell below 4 (i.e., no substantial areas requiring enhancement were identified). Qualitative comments highlighted the clear phase structure but suggested adding guidance on resource constraints.

## 5. Discussion

### 5.1. Theoretical contributions

This study makes three theoretical contributions to the CE and BMI literature.

First, this study provides a systematic, replicable

process that operationalizes CE through BMI. Prior works described CE as an orientation (Kuratko *et al.*, 2014) but rarely offered a stepbystep method. Our fourphase framework shows how firms can move from diagnosis (ecosystem analysis) to execution (roadmap implementation), thus addressing the “ideation–implementation gap” identified by Foss and Saebi (2016).

Second, the study demonstrates that integrating Frankenberger's 4I with De Reuver's roadmap helps address the tension between exploration and exploitation. The 4I framework encourages creative exploration (ideation), while the roadmap imposes disciplined exploitation (backcasting, milestones). The case of Gold Gallery shows that B2B2C (exploration of new channels) and complementary goods (exploration of new value propositions) were balanced with existing operations (exploitation of core gold retail). This integration advances CE theory by offering a hybrid framework.

Third, by grounding the framework in dynamic capabilities theory, the study demonstrates that BMI is not a oneoff event but a set of sensing, seizing, and transforming routines. Specifically, the ecosystem analysis phase performs sensing, the ideation and integration phases perform seizing, and the roadmap implementation supports transforming (Teece, 2007). This bridges a gap between highlevel dynamic capabilities and operational BMI tools.

### 5.2. Comparison with prior findings

Our finding that B2B2C was more suitable than direct B2C in the gold retail context aligns with prior research on luxury goods where intermediaries enhance trust and reduce customer risk (Iheanachor *et al.*, 2021). However, it contradicts generic ecommerce advice that disintermediation is always beneficial. This highlights the importance of contextual factors (e.g., highvalue products and the need for authentication) in BMI.

### 5.3. Practical implications

For managers, the framework offers a clear template: start with a BMCbased diagnosis, involve stakeholders early (interviews), benchmark against both international and local best practices, use a decision matrix to prioritize, and develop backcasted roadmaps. The Gold Gallery case illustrates that even a traditional SME with limited digital capabilities can initiate BMI implementation within 6–12 months.

### 5.4. Critical reflection and boundary conditions

We acknowledge that the framework's effectiveness is influenced by top management commitment and

stakeholder availability. In Gold Gallery, the chief executive officer's active involvement was crucial; without it, the ideation phase could have faced delays or challenges. Moreover, the framework assumes a relatively stable regulatory environment—a boundary condition that may not apply in highly volatile contexts. Additionally, the expert panel's high scores may partly reflect selection bias (experts who agreed to participate may be sympathetic to systematic approaches). Future research should include independent, blind evaluations.

## 6. Conclusion

This research contributes a systematic methodology for enhancing BMs to foster CE. By integrating the 4I framework and De Reuver's roadmap, we provide a mechanism for bridging strategic ideation and operational implementation. The Gold Gallery case demonstrates that a traditional SME can develop and refine its BM using this approach, with the B2B2C model and complementary goods model emerging as the higher-priority alternatives.

However, the findings should be interpreted within the specific context of the case study. The findings are derived from a single case in a specific industry and national context. The strengths of this study—rich process data and practical utility—are accompanied by inherent limitations in generalizability. We have explicitly acknowledged that the framework is not a “onesizefitsall” solution but a structured guide that requires contextual adaptation.

### 6.1. Limitations

- (i) Single-case design: While justified for theory building, it restricts statistical generalizability. Future research should conduct comparative multicase studies across industries (e.g., healthcare, manufacturing) and countries.
- (ii) Potential qualitative bias: Despite the quantitative assessment from the expert panel, the core analysis remains interpretive. Longitudinal quantitative studies examining financial performance (e.g., return on investment, customer acquisition cost) and innovation metrics (e.g., number of new products, time to market) are needed.
- (iii) Causal mechanisms: This study identifies correlations between the framework and outcomes but cannot establish causation. Future research should use quasiexperimental designs (e.g., treated vs. control firms) to test causal effects.
- (iv) External validity: The Iranian market under sanctions presents a unique economic environment. Replication in more stable, digitally mature markets is necessary.

### 6.2. Future research directions

- (i) Crossindustry application: Apply the framework to

technology, healthcare, and manufacturing SMEs.

- (ii) Longitudinal impact assessment: Track Gold Gallery's performance over a period of 3–5 years (sales growth, customer retention, profitability).
- (iii) Integration with digital transformation tools: Incorporate artificial intelligencebased customer analytics into the ideation phase.
- (iv) Sustainabilityoriented BMI: Extend the framework to include circular economy principles (e.g., gold recycling models).

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## Conflict of interest

The authors declare they have no competing interests.

## Contributions

*Conceptualization:* Saeed Safari, Sayyed Hossein Hakimzadeh Hosseini

*Formal analysis:* Sayyed Hossein Hakimzadeh Hosseini

*Investigation:* Saeed Safari, Sayyed Hossein Hakimzadeh Hosseini

*Methodology:* Saeed Safari, Sayyed Hossein Hakimzadeh Hosseini

*Writing—original draft:* Sayyed Hossein Hakimzadeh Hosseini, Zahra Ebrahimi Ardekani

*Writing—review & editing:* Saeed Safari

## Ethics approval and consent to participate

Not applicable. This study is conducted in the field of business studies and does not involve human or animal participants, clinical trials, or any procedures requiring ethical approval.

## Consent for publication

Not applicable.

## Availability of data

Not applicable.

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