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MARKETING AND BUSINESS DEVELOPMENT CAPABILITIES IN NURSE ENTREPRENEURSHIP: A SCOPUS-BASED SYSTEMATIC LITERATURE REVIEW

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Abstract: *Nurse entrepreneurship has long been discussed as a response to healthcare service gaps, professional autonomy, and new forms of care delivery. However, the evidence remains fragmented across practice reports, historical accounts, qualitative studies, and educational reviews, while market-facing and business-development capabilities are rarely synthesized as an integrated construct. This review maps the development of Scopus-indexed nurse entrepreneurship research and synthesizes the marketing and business development capabilities associated with venture creation, legitimacy, commercialization, and sustainability. A Scopus-based systematic literature review was reported using PRISMA 2020 and informed by SPAR-4-SLR. Inclusion criteria were English language, nursing context, and article document type. Twenty-two articles published from 1985 to 2025 were included in bibliometric analysis; 17 records with usable abstracts supported thematic coding. Keyword co-occurrence was examined using full counting and a minimum occurrence threshold of two. Six empirical or review reports were provisionally appraised using design-appropriate JBI tools. The corpus received 116 Scopus citations and was distributed across 18 sources. Healthcare marketing (18 occurrences; total link strength [TLS] = 103), nursing services (15; TLS = 80), entrepreneurship (14; TLS = 77), professional practice (13; TLS = 69), and financial management (12; TLS = 61) formed the conceptual core. Network analysis produced two broad clusters: a market-operational cluster and an entrepreneurial-professional-development cluster. Overlay visualization indicated a transition from private practice, financial management, and service promotion toward leadership, professional competence, communication, and sustainable value. Five capability domains were synthesized: market sensing and opportunity recognition; marketing communication, positioning, and trust; business planning and financial management; networking, partnerships, and referrals; and service innovation and commercialization. Nurse entrepreneurship research recognizes many practical business activities but has not yet developed a cumulative, theory-driven capability model. Future research should measure capability configurations and link them to patient trust, service adoption, financial viability, growth, and social value.*

Keywords: *business development; entrepreneurial nursing; nurse entrepreneurship; marketing capabilities*

Abstrak: Kewirausahaan perawat telah lama dibahas sebagai respons terhadap kesenjangan layanan kesehatan, otonomi profesional, dan bentuk-bentuk baru pemberian layanan kesehatan. Namun, bukti-bukti yang ada masih tersebar dalam laporan praktik, catatan sejarah, studi kualitatif, dan tinjauan pendidikan, sementara kemampuan yang berorientasi pada pasar dan pengembangan bisnis jarang disintesis sebagai sebuah konstruk yang terintegrasi. Tinjauan ini memetakan perkembangan penelitian kewirausahaan perawat yang terindeks Scopus serta menyintesis kemampuan pemasaran dan pengembangan bisnis yang terkait dengan pembentukan usaha, legitimasi, komersialisasi, dan keberlanjutan. Tinjauan pustaka sistematis berbasis Scopus ini dilaporkan menggunakan pedoman PRISMA 2020 dan kerangka SPAR-4-SLR. Kriteria inklusi mencakup penggunaan bahasa Inggris, konteks keperawatan, dan jenis dokumen artikel. Sebanyak dua puluh dua artikel yang diterbitkan antara tahun 1985 hingga 2025 disertakan dalam analisis bibliometrik; 17 rekaman dengan abstrak yang dapat digunakan mendukung

proses pengodean tematik. Ko-okurensi kata kunci diperiksa menggunakan metode full counting dengan ambang batas kemunculan minimal dua kali. Enam laporan empiris atau tinjauan dinilai secara awal menggunakan instrumen JBI yang sesuai dengan desain penelitian. Kumpulan literatur ini memperoleh 116 sitasi Scopus dan tersebar di 18 sumber publikasi. Pemasaran layanan kesehatan (18 kemunculan; total kekuatan tautan [TLS] = 103), layanan keperawatan (15; TLS = 80), kewirausahaan (14; TLS = 77), praktik profesional (13; TLS = 69), dan manajemen keuangan (12; TLS = 61) membentuk inti konseptual. Analisis jaringan menghasilkan dua klaster besar: klaster operasional-pasar dan klaster pengembangan profesional-kewirausahaan. Visualisasi overlay menunjukkan adanya transisi dari praktik mandiri, manajemen keuangan, dan promosi layanan menuju kepemimpinan, kompetensi profesional, komunikasi, dan nilai berkelanjutan. Lima domain kemampuan disintesis: pemahaman pasar dan pengenalan peluang; komunikasi pemasaran, pemosisian, dan kepercayaan; perencanaan bisnis dan manajemen keuangan; jejaring, kemitraan, dan rujukan; serta inovasi layanan dan komersialisasi. Penelitian kewirausahaan perawat mengakui berbagai aktivitas bisnis praktis namun belum mengembangkan model kemampuan yang bersifat kumulatif dan berbasis teori. Penelitian di masa depan sebaiknya mengukur konfigurasi kemampuan dan mengaitkannya dengan kepercayaan pasien, adopsi layanan, kelayakan finansial, pertumbuhan, dan nilai sosial.

Kata kunci: pengembangan bisnis; keperawatan kewirausahaan; kewirausahaan perawat; kemampuan pemasaran

INTRODUCTION

Nurses have historically created independent practices, home-care organizations, registries, education and consultancy services, technology-based products, and other ventures that respond to unmet needs in healthcare markets. Early publications described entrepreneurship as an alternative career pathway and a mechanism for professional autonomy, while later studies emphasized competencies, opportunity recognition, social value, and intrapreneurial change (Barger, 1991; Manion, 1991; Neergård, 2021; Ubochi et al., 2021). The literature therefore positions nurse entrepreneurs not only as business owners but also as professionals who translate clinical knowledge into new services, delivery arrangements, and market offerings.

Despite this long history, nurse entrepreneurship remains conceptually dispersed. Neergård's (2021) systematic review distinguished entrepreneur and intrapreneur roles and synthesized employment status, activities, barriers, motivations, and contexts. Arnaert et al. (2018) identified educational deficits in cognitive, interpersonal, business, and strategic capabilities. These reviews established the importance of entrepreneurial roles and preparation, but they did not organize the field around the market-facing capabilities through which a venture discovers demand, communicates value, develops relationships, configures resources, and achieves sustainable growth.

Marketing capability offers a useful management lens for this problem. Day (1994) argues that market-driven organizations develop capabilities such as market sensing, customer linking, and channel bonding. In nurse entrepreneurship, analogous capabilities include recognizing patient and payer needs, positioning specialized nursing services, establishing professional legitimacy, cultivating referral networks, pricing and packaging services, and commercializing innovations. These activities are visible in the literature—for example, promotion in advanced nursing practice (Durham et al., 1985), marketing strategies (Gardner & Weinrauch, 1988), business planning (Mackey, 2005), and technology commercialization (Rowe, 2013; Vollman, 2004)—yet they have typically been presented as isolated practices rather than as an integrated capability system.

Business development extends this market-facing perspective by connecting opportunity identification with resource mobilization, service design, partnerships, revenue logic, and growth. In the included literature, these issues appear in accounts of nurse-led home care (Eaton, 1994), elderly-care institutions (Trombeta et al., 2020), private-duty registries (Whelan, 2012), and nurses who established their own businesses (Roggenkamp & White, 1998). However, empirical research rarely links these practices to objective venture outcomes, and contemporary subjects such as digital marketing, patient acquisition, brand trust, platform models, scaling, and venture survival remain weakly represented.

Research gap

The review addresses five connected gaps. First, previous syntheses have concentrated on entrepreneurial roles, education, motivations, and barriers rather than on marketing and business development as organizational capabilities (Arnaert et al., 2018; Neergård, 2021). Second, the literature frequently mentions marketing, finance, planning, and networking, but these constructs are seldom defined, measured, or anchored in marketing and strategy theory. Third, practical advice articles dominate portions of the field, while evidence linking capabilities to market legitimacy, patient trust, revenue, growth, or social impact is scarce. Fourth, the temporal and relational structure of these capability themes has not been clearly visualized within a Scopus-based nursing entrepreneurship corpus. Fifth, the field lacks an integrative framework explaining how clinical expertise and entrepreneurial foundations are converted into market outcomes through a portfolio of mutually reinforcing capabilities.

Accordingly, this study focuses on the following research questions:

RQ1. How has Scopus-indexed research on nurse entrepreneurship evolved in terms of publication and conceptual structure?
RQ2. What marketing and business development capabilities are identified in the literature?
RQ3. What is the methodological quality of the empirical and review evidence according to design-appropriate JBI criteria?
RQ4. What integrative framework and future research agenda can be derived from the evidence?

METHOD

Review Design and Reporting

The study used a systematic literature review with bibliometric support. The review process was structured using the assembling, arranging, and assessing logic of SPAR-4-SLR (Paul et al., 2021). Reporting followed the PRISMA 2020 statement and its flow-diagram logic (Page et al., 2021). Bibliometric procedures were informed by recommendations to combine performance analysis and science mapping while maintaining transparent data cleaning and threshold decisions (Donthu et al., 2021).

Data Source, Scope, and Eligibility Criteria

Scopus was used as the sole database because the supplied dataset originated from Scopus and contained standardized bibliographic metadata across nursing, healthcare management, entrepreneurship, marketing, and innovation. The export was created in July 2026 and included complete citation information, titles, abstracts when available, author and index keywords, affiliations, document types, DOIs, PubMed identifiers, and Scopus electronic identifiers. No publication-year restriction was applied.

Table 1. Eligibility Criteria

Criterion	Inclusion	Exclusion
Language	English	Non-English records
Disciplinary/contextual relevance	Nursing context: nurses, nursing practice, nurse-led ventures,	Records without a substantive nursing context

	nurse entrepreneurship, or nursing intrapreneurship	
Document type	Article	Reviews exported under another document type, conference papers, chapters, books, editorials, notes, and grey literature
Topical relevance	Entrepreneurship, intrapreneurship, independent practice, business creation, commercialization, or market-facing venture activity involving nurses	Clinical innovation without entrepreneurial, market, or business-development relevance
Time period	Database inception to 16 July 2026	None based on date

Search Strategy and Study Selection

The search strategy for reproducibility, the following query was done:

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TITLE-ABS-KEY("nurse entrepreneur*" OR "nursing entrepreneur*" OR "entrepreneurial nurs*" OR "nurse intrapreneur*" OR "nursing intrapreneur*" OR "nurse-led venture*" OR "nurse-led enterprise*" OR "nurse-owned business*" OR "nurse-owned practice*" OR "nursing business*" OR (nurs* W/3 (self-employ* OR startup* OR "private practice" OR "independent practice" OR "social enterprise*" OR "social entrepreneur*")))
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Records were deduplicated using title, DOI, and Scopus EID. Titles, abstracts, and indexed terms were screened against the prespecified criteria. Because all 22 records in the supplied export were English-language articles situated in the nursing context, no record was excluded on the three formal criteria requested for this review. Five records lacked a usable abstract in the export. These records remained in bibliometric and descriptive analyses but were not used as primary evidence for abstract-supported thematic coding.

Data Extraction and Bibliometric Analysis

The extracted fields comprised authors, publication year, source title, citation count, DOI, country or affiliation, abstract, author keywords, and index keywords. Performance indicators included annual publication output, source dispersion, total citations, median citations, and highly cited documents. Keyword co-occurrence analysis combined author and index keywords after thesaurus-based harmonization of spelling variants, plural forms, and closely related expressions. Generic indexing terms that did not carry conceptual meaning were removed.

Full counting was applied, and a minimum occurrence threshold of two was used because the corpus was small and 14 records did not contain author keywords. Twenty cleaned concepts met the threshold. Co-occurrence links were normalized using association strength, and total link strength represented the sum of an item's co-occurrence links. Network, overlay, and density views were generated from the same coordinate and co-occurrence matrices. VOSviewer map and network files were prepared in the format described by van Eck and Waltman (2010). The figures in this draft are VOSviewer-compatible renderings; native VOSviewer reproduction is recommended as a final verification step.

JBI Critical Appraisal

Critical appraisal was restricted to empirical studies and research reviews for which a design-appropriate JBI instrument existed. Qualitative studies were assessed using the JBI qualitative checklist, the descriptive survey was assessed using the analytical cross-sectional checklist with cautious interpretation, and the integrative review was assessed using the checklist for systematic reviews and research syntheses (JBI, 2020a, 2020b, 2026). Conceptual,

historical, interview, practice, and reflection articles were labeled "not applicable" rather than being forced into an unsuitable risk-of-bias instrument.

Each item was coded Yes, No, Unclear, or Not Applicable. JBI does not prescribe a universal numerical cutoff across heterogeneous designs; therefore, item-level patterns and an overall reporting judgment were used, and no study was excluded solely on the basis of a score. Because full text was not available for every older publication in the supplied materials, the appraisal is explicitly reporting-based and provisional. Unreported information was coded Unclear rather than inferred.

Thematic Synthesis

Thematic synthesis used an abductive approach. Initial codes were informed by marketing capability concepts, including market sensing and customer linking (Day, 1994), while additional codes were developed inductively from the nurse entrepreneurship literature. Codes were compared across articles and consolidated into capability domains. Each domain was examined in relation to its activities, evidence base, enabling conditions, and expected venture outcomes. The synthesis remained at the level supported by titles, abstracts, indexed terms, and accessible reporting; unsupported causal claims were avoided.

RESULT AND DISCUSSION

Study Selection and Corpus Characteristics

The Scopus export contained 22 unique articles published between 1985 and 2025. No duplicate title was detected. All 22 records met the formal inclusion criteria of English language, nursing context, and article document type. The records were distributed across 18 sources, indicating that nurse entrepreneurship research has not consolidated around a single specialist journal. Nursing Outlook contributed three articles, while Nurse Practitioner and Journal of Professional Nursing contributed two each; the remaining sources contributed one article each.

Table 2. Corpus Profile Based On the Supplied Scopus Export

Indicator	Result
Included records	22
Publication period	1985–2025
Unique sources	18
Total Scopus citations	116
Median citations per article	2
Records without usable abstract	5
Records without author keywords	14
Records used in abstract-supported thematic synthesis	17
JBI-applicable empirical/review reports	6

Publication activity was intermittent rather than cumulative. Five articles appeared in the 1980s, seven in the 1990s, three in the 2000s, three in the 2010s, and four in the 2020s. The highest annual output was three articles in 1991. The pattern suggests repeated waves of interest rather than a continuously expanding research program.

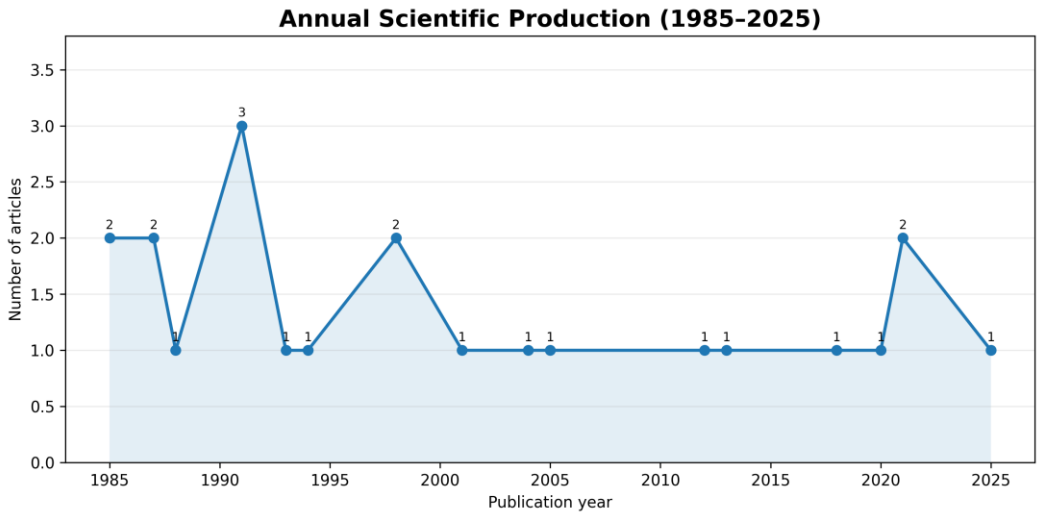

Figure 2. Annual Scientific Production in the Included Scopus Corpus, 1985–2025

The five most cited documents were Arnaert et al. (2018; 36 citations), Roggenkamp and White (1998; 22), Whelan (2012; 12), Ubochi et al. (2021; 10), and Menegaz et al. (2021; 8). These documents represent different knowledge types: an integrative review, a qualitative study of business founders, a historical market-organization analysis, a grounded theory, and a sustainability-oriented reflection. The citation pattern therefore does not indicate a single dominant theoretical tradition.

Keyword Co-Occurrence Network

Twenty cleaned concepts met the minimum occurrence threshold. The network separated into two interpretable clusters. The first, termed the market-operational cluster, connected healthcare marketing, nursing services, financial management, business management, private practice, networks and referrals, quality and risk, home and community care, and technology commercialization. The second, termed the entrepreneurial-professional-development cluster, connected entrepreneurship, professional practice, career and motivation, nursing education, innovation and creativity, professional competence, leadership, communication and teamwork, market and employment, and social and sustainable value.

Healthcare marketing was the most frequent and structurally connected concept (18 occurrences; TLS = 103), followed by nursing services (15; TLS = 80), entrepreneurship (14; TLS = 77), professional practice (13; TLS = 69), and financial management (12; TLS = 61). The high connectivity of healthcare marketing should not be interpreted as evidence of mature marketing theory. Instead, close reading indicated that marketing was frequently indexed as promotion, business generation, professional communication, or service visibility rather than operationalized as a multidimensional capability.

Table 3. Leading Concepts in the Cleaned Keyword Co-Occurrence Map

Concept	Occurrences	Total link strength	Average publication year
Healthcare marketing	18	103	1997.9
Nursing services	15	80	1995.3
Entrepreneurship	14	77	2006.4
Professional practice	13	69	2002.2
Financial management	12	61	1992.4
Career and motivation	10	61	2006.9
Business management	10	53	2001.6
Nursing education	7	37	2011.9
Private practice	7	35	1993.3

Networks and referrals	5	—	2000.2

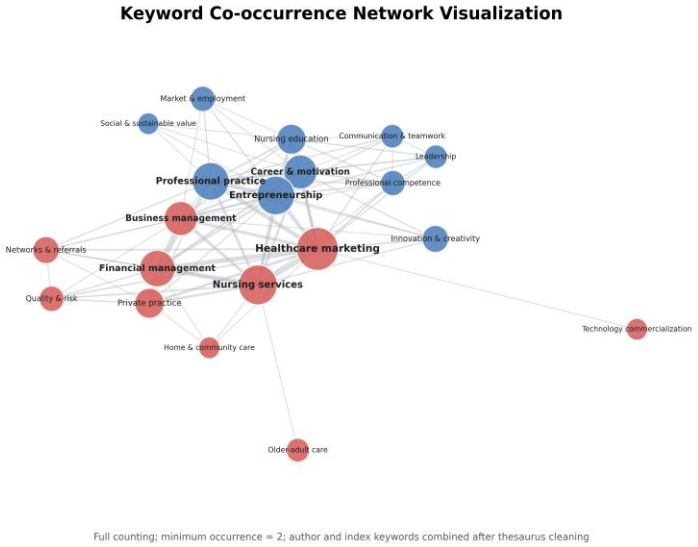

Figure 3. Network Visualization of Keyword Co-Occurrence. Node Size Represents Occurrence Frequency, Line Thickness Represents Co-Occurrence Strength, and Color Indicates The Two Broad Thematic Clusters

Overlay Visualization

The overlay view revealed a temporal shift in the field. Earlier themes included financial management (average publication year [APY] = 1992.4), private practice (APY = 1993.3), nursing services (APY = 1995.3), and healthcare marketing (APY = 1997.9). Later themes included professional competence (APY = 2017.2), social and sustainable value (APY = 2019.5), leadership (APY = 2021.3), and communication and teamwork (APY = 2015.7). This shift indicates that the field has moved from practical establishment and promotion of independent nursing work toward capability development, leadership, and broader social value. Nevertheless, recent themes remain weakly connected to quantitative venture-performance evidence.

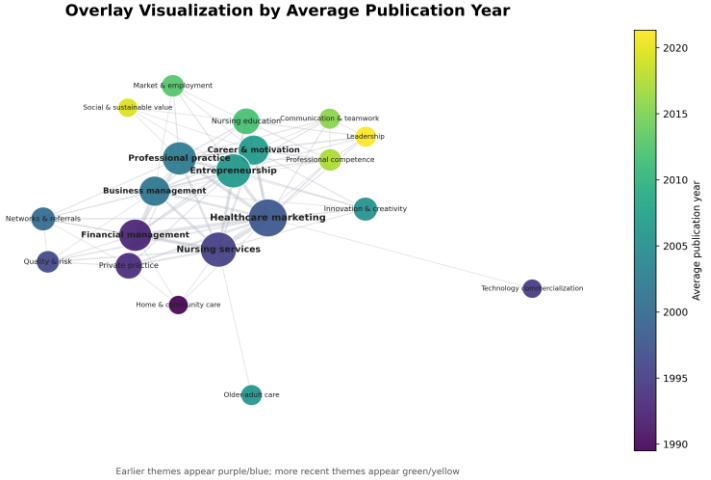

Figure 4. Overlay Visualization by Average Publication Year. Earlier Concepts Appear in Purple/Blue and More Recent Concepts in Green/Yellow

Density Visualization

The density visualization showed a concentrated core around entrepreneurship, healthcare marketing, professional practice, career and motivation, business management, financial management, and nursing services. Peripheral positions were occupied by technology commercialization, older-adult care, social

and sustainable value, leadership, and market and employment. The pattern suggests that the literature has accumulated descriptive attention around the decision to become entrepreneurial and the practical management of services, while specialized growth mechanisms and outcome-oriented themes remain underdeveloped.

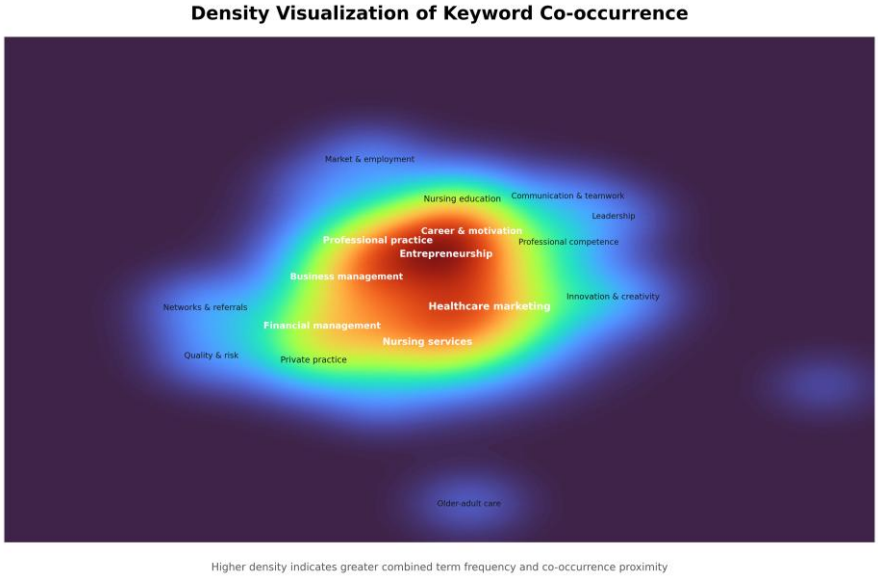

Figure 5. Density Visualization of Cleaned Keyword Co-Occurrence. Warmer Areas Indicate Greater Combined Term Frequency and Proximity

JBI Critical Appraisal

Six reports were suitable for design-specific JBI appraisal. The more recent qualitative studies generally provided clearer congruity among research questions, methodology, data collection, analysis, and interpretation than the older descriptive reports. Reflexivity and researcher positioning were the most frequently unclear qualitative items. The integrative review showed broad alignment between its purpose, search, and synthesis, but some details required for a fully reproducible risk-of-bias assessment were incompletely reported. The descriptive survey was retained because it directly addressed promotion practices, although several cross-sectional appraisal items could not be established from the available reporting.

Table 4. Provisional JBI Critical Appraisal of Empirical and Review Reports. Y = Yes; N = No; U = Unclear. The Appraisal Must Be Independently Repeated Against Full Texts Before Submission.

Study	Design	JBI tool	Item summary	Overall judgment	Decision
Durham et al. (1985)	Descriptive survey	Analytical cross-sectional (8 items)	4 Y / 0 N / 4 U	Moderate/ unclear reporting	Include
Roggenkamp & White (1998)	Qualitative interviews	Qualitative (10 items)	6 Y / 0 N / 4 U	Moderate reporting	Include
Trombeta et al. (2020)	Grounded theory	Qualitative (10 items)	8 Y / 0 N / 2 U	High reporting	Include
Ubochi et al. (2021)	Grounded theory	Qualitative (10 items)	9 Y / 0 N / 1 U	High reporting	Include
Amaral et al. (2025)	Qualitative	Qualitative (10 items)	9 Y / 0 N / 1 U	High reporting	Include
Arnaert et al. (2018)	Integrative review	Systematic reviews (11 items)	8 Y / 1 N / 2 U	Moderate–high reporting	Include

Marketing and Business Development Capability Domains

The thematic synthesis identified five capability domains. The domains are analytically distinct but interdependent: market knowledge informs positioning and service design; business planning enables value capture; networks create legitimacy and access; and commercialization converts nursing knowledge into scalable offerings.

Table 5. Synthesized Marketing and Business Development Capability Domains.

Capability domain	Core activities	Representative evidence	Expected outcomes
1. Market sensing and opportunity recognition	Identifying unmet patient needs, service gaps, changes in healthcare economics, viable customer groups, and opportunities for independent or social enterprise.	Smith (1987); Roggenkamp & White (1998); Trombeta et al. (2020); Ubochi et al. (2021); Amaral et al. (2025)	Opportunity identification and venture-market fit
2. Marketing communication, positioning, and trust	Promoting services, communicating scope and expertise, building professional credibility, educating potential clients, and managing ethical boundaries in business generation.	Durham et al. (1985); Gardner & Weinrauch (1988); Felten et al. (1985); Vonfrolio (1993); Mackey (2005)	Market legitimacy, awareness, trust, and service adoption
3. Business planning and financial management	Business-plan preparation, pricing, service packaging, accounting, cost control, financing, administration, and risk management.	Barger (1991); Kaplan (1991); Eaton (1994); Mackey (2005); Arnaert et al. (2018); Amaral et al. (2025)	Financial viability and operational continuity
4. Networking, partnerships, and referrals	Developing referral channels, professional alliances, interorganizational relationships, mentorship, and access to ecosystems and complementary resources.	Gardner & Weinrauch (1988); Whelan (2012); Arnaert et al. (2018); Ubochi et al. (2021); Amaral et al. (2025)	Customer access, credibility, resources, and growth
5. Service innovation and commercialization	Designing differentiated services, configuring home and community delivery, converting inventions into offerings, and adapting the venture model to changing demand.	Felten et al. (1985); Eaton (1994); Vollman (2004); Whelan (2012); Rowe (2013); Trombeta et al. (2020)	Value creation, differentiation, scalability, and social impact

Market Sensing and Opportunity Recognition

Opportunity recognition was repeatedly rooted in nurses' direct exposure to unmet clinical and service needs. The changing healthcare economy was described as opening new career and venture possibilities (Smith, 1987), while

nurse founders reported that professional experiences and dissatisfaction with existing delivery systems motivated business creation (Roggenkamp & White, 1998). Later grounded-theory research conceptualized entrepreneurship as a process driven by personal, professional, and contextual forces (Ubochi et al., 2021). Studies of elderly-care ventures further showed that perceiving market attractiveness was insufficient without the operational capacity to sustain the enterprise (Trombeta et al., 2020). Market sensing in this field is therefore inseparable from clinical knowledge, but it must be expanded beyond recognizing need to estimating demand, payment feasibility, competition, and regulatory fit.

Marketing Communication, Positioning, and Trust

Marketing communication was one of the earliest explicit topics in the corpus. Nurses in private practice used multiple promotional strategies but also faced concerns about whether business-generating practices were professionally appropriate (Durham et al., 1985). Practice-oriented publications recommended clarifying the service offer, communicating specialized expertise, building visibility, and using referral-based promotion (Gardner & Weinrauch, 1988; Vonfrolio, 1993). Felten et al. (1985) linked the success of a nursing enterprise to defining, packaging, pricing, and marketing services. The underlying capability is not promotion alone; it is the ability to translate clinical expertise into a credible value proposition while preserving ethical standards and professional trust.

Business Planning and Financial Management

Business and financial competence appeared throughout the corpus but was often discussed as a deficit. Early education articles argued that nurses required preparation beyond clinical practice (Barger, 1991), while practical guidance addressed business planning, accounting, pricing, and operational decisions (Kaplan, 1991; Mackey, 2005). Arnaert et al. (2018) later identified business skills as one of four major entrepreneurial leadership skillsets missing from nursing preparation. Amaral et al. (2025) similarly identified accounting, marketing, administration, management, leadership, and ethics as technical competencies for nurse entrepreneurs. Together, the evidence supports treating financial management and business planning as core capabilities rather than peripheral administrative tasks.

Networking, Partnerships, and Referrals

Network capability connects professional legitimacy with market access. Referral relationships are especially important because healthcare consumers frequently depend on trusted professional recommendations. Gardner and Weinrauch (1988) emphasized relationship-based marketing, while Whelan's (2012) historical analysis showed how registries organized connections between private-duty nurses and patients. Contemporary studies also highlight mentorship, teamwork, communication, and ecosystem support as conditions for entrepreneurial action (Arnaert et al., 2018; Ubochi et al., 2021; Amaral et al., 2025). Networks should therefore be studied not only as social support but also as channels, resource partnerships, and mechanisms of legitimacy.

Service Innovation and Commercialization

Nurse entrepreneurship creates value by reconfiguring how care is offered and delivered. Examples include home-care alternatives (Eaton, 1994), elderly-care institutions (Trombeta et al., 2020), and the historical registry model (Whelan, 2012). Innovation also includes taking nurse-developed inventions to market (Rowe, 2013; Vollman, 2004). Yet commercialization was peripheral in the co-occurrence map, and the literature rarely examined intellectual property strategy, digital channels, scale economies, platform governance, or post-launch performance. This creates an important

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opening for management research on how nurse-led innovations progress from clinical problem identification to validated, scalable offerings.

Integrative Framework

Figure 6 integrates the findings. Clinical expertise, autonomy, motivation, and opportunity recognition form the entrepreneurial foundation. These resources are converted into outcomes through five capability domains. Regulation, ethics, scope-of-practice rules, access to capital, digital infrastructure, and entrepreneurial education shape the deployment and effectiveness of the capabilities. Expected outcomes are multidimensional and include market legitimacy, service adoption, financial viability, growth, and social value.

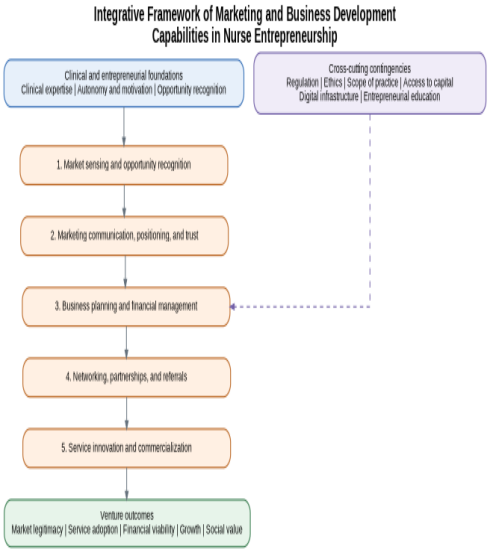

Figure 6. Integrative Framework of Marketing and Business Development Capabilities in Nurse Entrepreneurship

Discussion

Principal Findings

This review shows that marketing and business development have been present in nurse entrepreneurship research for four decades, but mostly as fragmented practices rather than as a cumulative theoretical domain. The network core combines healthcare marketing, nursing services, entrepreneurship, professional practice, financial management, and business management. This combination supports the central premise of the review: nurse entrepreneurship is a process of converting clinical expertise into a market-recognized and operationally sustainable offer.

The temporal analysis adds nuance. The earlier literature focused on private practice, pricing, promotion, and financial management, reflecting the practical concerns of establishing an independent nursing business. The later literature increasingly emphasizes competence, leadership, communication, and sustainable value. This shift is positive but incomplete. Capability development is discussed more often, yet measurement of marketing effectiveness and venture performance remains rare. The literature has moved from "how to start" toward "what competencies are needed," but not yet toward robust explanation of which capability configurations produce which outcomes under which conditions.

Contribution to the Research Gap

The findings extend prior reviews in three ways. First, whereas Neergård (2021) distinguishes entrepreneurial roles and synthesizes characteristics and barriers, the present study organizes activities around market-facing and business-development capabilities. Second, whereas Arnaert et al. (2018) identifies educational gaps, this review specifies how competencies operate in venture processes: sensing markets, positioning services, planning finances, mobilizing networks, and commercializing innovations. Third, the bibliometric views make visible a disconnect between the centrality of healthcare marketing as an indexed concept and the limited use of contemporary marketing theory, measurement, and outcome models.

This distinction matters for management journals. A descriptive list of entrepreneurial traits does not explain venture development. A capability perspective directs attention to repeatable organizational processes that can be learned, combined, and deployed. It also creates testable relationships between clinical resources, capability portfolios, contextual contingencies, and venture outcomes. In this sense, the review

reframes nurse entrepreneurship from an occupational choice into a capability-driven value-creation process.

Theoretical Implications

The synthesis suggests that market sensing and customer linking, as proposed by Day (1994), require contextual adaptation in professional healthcare. Patients are not ordinary consumers, and trust, information asymmetry, professional regulation, and ethical duties shape marketing behavior. Marketing capability in nurse entrepreneurship should therefore include ethical communication, clinical credibility, referral legitimacy, and stakeholder alignment in addition to conventional market information and promotion.

The capability domains also appear complementary. Market sensing without business planning may generate attractive ideas that cannot be financed or delivered. Promotion without legitimacy may undermine professional trust. Networking without a differentiated value proposition may generate referrals but not retention. Commercialization without ethical and regulatory capability may expose the venture to risk. Future theory should therefore model capability configurations and complementarities rather than treating each capability as an isolated independent variable.

Managerial, Educational, and Policy Implications

For nurse entrepreneurs, the framework can be used as a diagnostic tool. A venture should assess whether it can identify a sufficiently specific need, articulate a credible value proposition, calculate viable pricing and costs, access referral and partnership channels, and improve or scale the service. Clinical expertise is essential but does not substitute for these capabilities.

For nursing education, entrepreneurial content should progress beyond awareness and intention. Curricula can use project-based learning in which students conduct market interviews, design service propositions, build simple financial models, map stakeholders and referral pathways, and test ethical marketing messages. The competence findings of Arnaert et al. (2018) and Amaral et al. (2025) support integrating business, strategic, interpersonal, and technical capabilities rather than offering isolated lectures on entrepreneurship.

For professional associations and policymakers, enabling conditions include clear scope-of-practice regulation, accessible business mentoring, procurement pathways, startup finance, innovation-transfer support, and ethical marketing guidance. Such infrastructure can reduce the tension between professional identity and commercial activity that appears in early and contemporary literature.

Future Research Agenda

Table 6. Future Research Agenda.

Research dimension	Priority directions
Theory	Develop and validate a multidimensional marketing and business development capability scale for nurse-led ventures. Test capability complementarity using dynamic-capability, market-orientation, and professional-legitimacy perspectives.
Context	Compare commercial ventures, social enterprises, intrapreneurial initiatives, home-care businesses, digital-health startups, and nurse-owned practices across developed and emerging economies.
Characteristics	Examine digital marketing capability, brand credibility, patient trust, pricing capability, referral-network strength, financial literacy, commercialization capability, and regulatory competence.
Outcomes	Use multidimensional outcomes: service adoption, retention, patient experience, revenue, cash-flow stability, survival, growth, innovation performance, access, and social value.

Methods	Conduct longitudinal studies, multi-country surveys, comparative case studies, structural equation modeling, configurational analysis, and paired entrepreneur-patient or entrepreneur-partner studies.
Data and reporting	Report venture age, business model, customer group, revenue logic, ownership, regulatory setting, and objective performance indicators to permit meaningful comparison.

Several specific questions follow from this agenda. How does professional credibility become a brand resource without encouraging inappropriate commercialization? When does digital marketing increase access, and when does it erode trust? Which combinations of market sensing, financial management, and network capability predict venture survival? How do reimbursement systems and scope-of-practice rules moderate capability effectiveness? How do nurse-led social enterprises balance social impact with revenue sustainability? These questions would move the field from descriptive accounts toward explanatory management research.

Limitations

The review has important limitations. First, Scopus was the only database, so nursing articles indexed exclusively in CINAHL, PubMed, regional databases, or grey literature may have been missed. Second, the corpus was small and 14 records lacked author keywords; consequently, the science maps should be interpreted as exploratory. Third, five records had no usable abstract, limiting thematic coding. Fourth, the JBI appraisal is provisional and reporting-based because complete full texts were not available for every older article. Fifth, keyword harmonization involves researcher judgment, although map and network files are supplied to support replication. Finally, citation counts favor older publications and should not be equated with methodological quality.

CONCLUSION

Nurse entrepreneurship literature has repeatedly acknowledged marketing, business planning, finance, networks, and commercialization, but it has not yet integrated these activities into a coherent, testable capability framework. This Scopus-based review identified five domains: market sensing and opportunity recognition; marketing communication, positioning, and trust; business planning and financial management; networking, partnerships, and referrals; and service innovation and commercialization. The bibliometric results show that the field's historical core lies in healthcare marketing, nursing services, professional practice, and financial management, while recent attention has shifted toward professional competence, leadership, communication, and sustainable value.

The main implication is that clinical expertise creates entrepreneurial potential but does not automatically produce a sustainable venture. Market legitimacy, service adoption, financial viability, growth, and social value depend on the development and coordinated deployment of market-facing and business-development capabilities. Future studies should operationalize these capabilities, examine their complementarities, and connect them to objective outcomes across diverse nurse-led venture models.

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