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From Lab to Market: A Strategic Market Entry Framework for a Cool-Roof Paint Startup in Chennai, India

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Abstract: The global cool-roof industry is experiencing significant growth driven by climate change and sustainability imperatives, with India representing a particularly promising yet competitive market due to its extreme heat vulnerability and nascent supportive policies. This study investigates the strategic market entry challenges and opportunities for Dewpoint Technologies, an Australian startup possessing patented cool-roof paint with unique self-cleaning and passive water-collection properties. Through a qualitative case study methodology, we conducted an in-depth analysis of the competitive landscape in Chennai, India, benchmarking six incumbent firms using the BMC framework alongside financial data from public companies. Our analysis reveals that while Dewpoint's core cooling efficacy is comparable to competitors, its self-cleaning and water-harvesting capabilities constitute a defensible competitive advantage in a water-scarce context like Chennai. However, the startup lacks the manufacturing capacity, distribution networks, and market knowledge of established players. Consequently, we propose a phased market entry strategy centered on a dual approach of targeted niche marketing and strategic partnership. We identify the underserved public and educational building sectors as the primary niche and recommend a private-label manufacturing and distribution agreement with Solo Paints, a Chennai-based eco-friendly paint manufacturer, to mitigate risks and costs. The strategy further includes pursuing sustainability certifications, leveraging Indo-Australian research grants for initial funding, and adopting a premium pricing strategy justified by its differentiated value proposition. This study provides an empirically-grounded strategic framework for technology startups seeking to navigate entry into complex, competitive emerging markets, highlighting the critical interplay between leveraging unique capabilities, identifying unmet market needs, and forging strategic local partnerships.

Keywords: market entry strategy; cool-roof technology; startup; emerging markets; India; business model canvas; strategic partnership; sustainability

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1. Introduction

The contemporary global business landscape is increasingly characterized by a pressing emphasis on sustainability and climate resilience. The year 2023 was officially recorded as the warmest on record, with severe weather events disproportionately impacting vulnerable populations worldwide [1]. In response to these challenges, passive cooling technologies like cool-roofs have gained significant traction for their ability to naturally lower indoor temperatures and reduce energy consumption from air conditioning [2]. The global cool-roof industry is consequently experiencing steady

growth, with market size projections indicating a compound annual growth rate (CAGR) of 5.2% to 6.2%, potentially reaching over USD 30 billion by 2032 [3,4]. India, with its population deeply vulnerable to rising temperatures and deadly heatwaves, represents a critical and expanding market for such technologies. Recognizing the benefits, Indian state governments have begun to promote cool-roof adoption; notably, the state of Telangana mandated cool-roofs on all government, commercial, and non-residential buildings in early 2023, signaling a growing regulatory push that is gradually overcoming the barrier of low consumer awareness [5,6]. Within this context, Dewpoint Technologies, an Australian startup, emerges as a promising actor with a patented cool-roof paint offering unique value-added properties. However, the path for a resource-constrained startup to enter the vibrant yet cost-intensive and highly competitive Indian cool-roof paint industry is fraught with challenges. Existing market players are numerous and commercially mature, with established manufacturing, distribution, and R&D capabilities. Therefore, a nuanced and evidence-based market entry strategy is paramount. This paper presents a comprehensive analysis and strategic framework for Dewpoint's market entry, using the city of Chennai as a focal point due to its suitable climate, moderate air quality, and high concentration of industry players. The study employs the Business Model Canvas (BMC) as an analytical framework to systematically deconstruct and compare Dewpoint's business model against key industry benchmarks. The primary objectives are to: (1) critically assess the competitive landscape of the cool-roof paint industry in Chennai; (2) identify Dewpoint's sustainable competitive advantages and critical gaps relative to incumbents; and (3) formulate a actionable, phased market entry strategy that leverages its unique technological capabilities while mitigating risks through strategic partnerships and targeted market segmentation. The subsequent sections of this research will detail the research methodology, present the findings from the benchmark analysis, discuss the strategic implications, and provide concrete recommendations for both the short and long term.

2. Literature Review and Theoretical Framework

This study is situated at the intersection of sustainable technology commercialization and strategic market entry in emerging economies. To build a robust analytical foundation, we review relevant literature on cool-roof technology and foundational business strategy theories.

2.1. Cool-Roof Technology and Market Drivers

Cool-roof coatings are designed to reflect significant amounts of sunlight and emit absorbed heat, thereby maintaining lower surface temperatures than conventional roofs. The primary value proposition lies in reducing heat transfer into buildings, leading to lower indoor temperatures and decreased energy consumption for air conditioning [7]. The global market for these technologies is expanding, driven by rising global temperatures, urbanization, and supportive government policies aimed at energy efficiency and heat mitigation [4]. In India, this growth is particularly salient. Studies and reports highlight the country's acute vulnerability to heatwaves and the potential of cool-roofs as a low-cost, scalable intervention to enhance urban resilience and protect public health [8]. Government initiatives, such as the cool-roof mandate in Telangana, mark a significant shift towards formalizing and promoting this technology, creating a structured opportunity for market players [9].

2.2. Theoretical Foundations for Market Entry Strategy

For a technology startup like Dewpoint, entering a competitive market requires a strategic approach grounded in established business theory. This paper employs three key theoretical lenses.

First, the Resource-Based View (RBV) of the firm posits that competitive advantage stems from a firm's unique bundle of resources and capabilities that are valuable, rare, inimitable, and organized (VRIO) [10]. For Dewpoint, its patented technology for self-cleaning and passive water collection represents a potential rare and inimitable resource in the Chennai market. The strategic task is to understand how this unique internal resource can be leveraged to create superior value and a defensible market position against incumbents who possess greater tangible resources like manufacturing scale and established distribution networks.

Second, Porter's Generic Strategies framework provides a foundational typology for competitive positioning [11]. It argues that firms achieve superior performance by choosing between cost leadership or differentiation, either industry-wide or within a specific segment. Given Dewpoint's likely higher production costs as a startup and its unique product features, a differentiation strategy is the most viable path. This involves creating a perceived unique value for which customers are willing to pay a premium, precisely aligning with the recommendation to target niche segments with a high-value offering.

Finally, the BMC is employed as the primary analytical framework to deconstruct and compare the strategic logic of market players [12]. The BMC's strength lies in its holistic and visual representation of how an organization creates, delivers, and captures value through nine interrelated building blocks: Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, and Cost Structure. This framework is particularly suited for our analysis as it allows for a systematic side-by-side comparison of Dewpoint's nascent business model with those of established benchmarks, effectively highlighting gaps, strengths, and potential synergies across the entire value chain. The comparative analysis derived from the BMC, as summarized in Figure 1, directly informs the strategic recommendations for partnership, resource allocation, and customer targeting.

Company	Dewpoint Innovations	Arkena	Excel Coatings	LuminX	Sai Cool Solution	Starshield	Thermacool
	Public or Private	public	private	private	private	private	private
Offering	Cooling Capabilities	yes, 93% solar radiation reflected	yes, 95% solar radiation reflected, 3-year TSR above 0.80	yes, 90% of infrared rays reflected, "High SRF"	yes, specifics undisclosed	yes, SRI 122	yes, SRI 130
	Energy Reduction	yes, specifics unknown	yes, 15-40% energy reduction	yes, energy costs reduced up to 30%; Humidification and air conditioning costs reduced by up to 40%	yes, up to 30% electricity bill reduction	yes, 20-30% energy and air conditioning reduction	yes, 19.2% air conditioning costs reduction
	Application Efficiency	yes, 2 coats ideal, no primer required	no, additional paint product required to apply top coat	yes, 2 coats, no primer required	yes, 2 coats minimum, no primer required	no, 3 coats required	yes, 2 coats minimum, no primer required
	Self-Cleaning	yes, through passive water collection	no	no	no	no	no
	Water Collection	yes, 100l per sq metre per day	no	no	no	no	no
	Sustainable Production	no	yes, strong CSR initiatives	yes, claim ultra-low VOC and green manufacturing processes	yes, adheres to EN standards	no	yes, adheres to EN standards
		no	yes, claim ultra-low VOC and green manufacturing processes	yes, adheres to EN standards	no	yes, adheres to EN standards	no
Customer	Customer Segments	N/A	Targets broadly residential and commercial sectors	Targets institutions and organisations such as ISER and universities; Green Building Projects (property developers such as 3C Universal); Commercial and industrial customers (such as Dynamic Technologies limited); Residential building segment	Targets Construction materials industry; Corporate, residential and commercial sectors; Religious centres and places of worship	Targets domestic Indian contractors and commercial companies	Specific Information not Disclosed
	Relationships	N/A	Focus on customer relationships through "commercial excellence program"	Focus on quality products and providing after sales services to ensure customer satisfaction; Values long-term relationship with customers	Focus on quality products and client-specific product development; Values long-term relationships with customers	Focus on Customer satisfaction; Provides 3-year warranty	Strong customer focus; Values long-term relationships with customers; Demand-based product development based on customer needs
	Channels	N/A	Distributors nationwide; Global distribution network; Utilizes industry events to showcase paint technology; own website	Distributors nationwide; Partner with e-commerce platforms to target small scale DIY consumers; own website	Dealership network; own website	Brick-and-mortar stores (15 branches); Physical store distributors and dealers nationwide; Utilizes e-commerce platforms like India Mart	Global Distribution network; Affiliate and Partner network; own website
	Key activities	N/A	Strong Emphasis on R&D and innovation initiatives; Commitment to employee and sustainability training; strong emphasis on innovation regarding green material sourcing and utilization	Highly value on innovation of research and development; Its ongoing innovative products using sustainable materials	Utilizing R&D initiatives to combine nanotechnology with cool-roof coatings	Meeting customer needs aligns by providing customised solutions	Certifications from ISO and ATOC; Has filed more than 15 claims in national and international patents as part of R&D initiatives; Registered and certified with 40+ global organisations
Infrastructure	Key resources	N/A	Internal research and testing labs, with 17 R&D centres located across the globe; focus on training and integration of human and knowledge-based resources	Has its own physical assets, permanently modernised infrastructure land; Focusing the integration of human and intellectual resources	Undisclosed	Undisclosed	Has own internal research and testing lab; Released over 90 research papers in prestigious international publications
	Key partners	N/A	Ongoing sustainability partnerships with companies such as ENGIE; ongoing civic partnerships with philanthropic organisations such as Sport dore la Vie and Habitat for Humanity; development of joint innovation partnerships with existing customers	Undisclosed	Undisclosed	Undisclosed	Government partner: Collaborates with the GRPA, Council; R&D partner: IIT Bombay, CEPT University

Figure 1. Comparison of Selected Benchmarks to Dewpoint Innovations.

The integration of these theories provides a multi-faceted lens for our analysis. The RBV helps identify what unique capabilities Dewpoint possesses, Porter's strategies suggest how to position these capabilities in the market, and the BMC offers a practical framework to operationalize the strategy by designing and comparing the business model logic. Together, they form a coherent theoretical foundation for developing a market entry strategy for Dewpoint.

3. Research Methodology

This study employs a qualitative, case study research design to develop a contextually rich and empirically grounded market entry strategy for Dewpoint Technologies. The case study approach is deemed appropriate as it facilitates an in-depth investigation of a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident [13]. The research methodology is structured around four key components: case and region selection, data collection, benchmark identification, and data analysis.

3.1. Case and Region Selection

The primary case subject of this study is Dewpoint Technologies, an Australian startup with a patented cool-roof paint technology. The selection was based on its innovative product features and its stated intent to enter the Indian market, presenting a classic strategic challenge for a resource-constrained innovator. The geographic scope was narrowed to Chennai, the capital of the Indian state of Tamil Nadu. This selection was driven by a multi-criteria evaluation. First, Dewpoint's patented technology requires specific climatic conditions high humidity in a hot, non-overcast area for optimal performance, which Chennai's tropical climate provides. Second, the city's air quality index (AQI) is predominantly in the moderate range, which is critical as extreme air pollution can degrade the paint's longevity and effectiveness. Third, and crucially, Chennai hosts a significant concentration of cool-roof manufacturers and distributors, making it a highly competitive and representative microcosm of the Indian market, thus providing a robust context for benchmarking and strategy formulation [14].

3.2. Data Collection

Data was collected from a wide array of secondary sources to construct a comprehensive view of the industry and the specific case. The methodology for data collection and its sources are summarized in Table 1, derived from the systematic approach documented in the original report.

Table 1. Data Collection Sources and Objectives.

Objective	Data Sources
Dewpoint's Company & Product Info	Dewpoint Innovations Website; Q&A sessions with company representatives; WIPO Patent (WO2021179052)
Benchmark Identification & Analysis	Company websites (Arkema, Excel Coatings, LuminX, Sai Cool Solution, StarShield, Thermacool, Solo Paints); IndiaMart; Tracxn
Market & Industry Intelligence	Factiva; ProQuest; SyndiGate Media [3]; VerticalNews [4]; Fortune Business Insights
Indian Policies & Sustainability	NRDC reports [9]; Government of Tamil Nadu publications; GRIHA Council

Climate, Weather & Environmental Data	IQAir [14]; World Data; World Meteorological Organisation [1]; NSW Government
Financial Data & Cost Structures	Company Annual Reports (Arkema, Asian Paints, Kansai Nerolac); Industry cost estimates

This multi-source approach ensured data triangulation, enhancing the validity and reliability of the findings.

3.3. Benchmark Identification and Analysis Framework

To position Dewpoint within the competitive landscape, six key benchmarks were identified based on their prominence and operational presence in Chennai: Arkema, Excel Coatings, LuminX, Sai Cool Solution (SCS), StarShield, and Thermacool. These companies represent a mix of large multinationals and local specialized firms, providing a diverse perspective on successful business models in the region. Furthermore, three financially listed companies Arkema, Asian Paints, and Kansai Nerolac were used as financial benchmarks to inform the cost and revenue structure analysis.

The core analytical framework for this study is the BMC [15]. Data pertaining to all nine building blocks of the BMC including Value Propositions, Customer Segments, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, and Cost Structure were systematically collated for Dewpoint and each benchmark company. This facilitated a structured side-by-side comparison, which was synthesized into a comprehensive matrix (as shown in Figure 1). This matrix served as the primary evidence base for identifying Dewpoint's competitive advantages, weaknesses, and potential market gaps.

3.4. Data Analysis

The data analysis followed a comparative and interpretive approach. The compiled BMC matrix was analyzed to identify patterns, points of parity, and critical points of differentiation between Dewpoint and the benchmarks. This involved comparing product specifications such as Solar Reflectance Index, application efficiency, customer targeting strategies, distribution channels, and partner ecosystems. Financial data from public companies were analyzed to derive industry norms for cost structures, which were then used to propose a realistic financial model for Dewpoint. The analysis was iterative, moving between the empirical data and the theoretical frameworks like RBV, Porter's Strategies to derive strategic insights and recommendations.

3.5. Limitations

This research is subject to several limitations. The competitive analysis is confined to the Chennai market, and while indicative, its findings may not be fully generalizable to all regions in India. Furthermore, as five of the six core benchmarks are privately held companies, access to detailed financial data and internal strategic documents was limited. The financial analysis for these entities relies on public data from larger, listed peers and industry estimates, which may not perfectly reflect the financial realities of all private benchmarks.

4. Findings and Analysis

The comprehensive analysis of the Chennai cool-roof market, benchmarked against established players, reveals critical insights into Dewpoint's competitive position. The

findings are structured around the core components of the BMC, culminating in a financial viability assessment.

4.1. Product Offering and Value Proposition

Analysis of the benchmark data, as synthesized in Figure 1, indicates significant parity among competitors on core cooling capabilities. Most companies, including StarShield (SRI 130) and SCS (SRI 122), promote high Solar Reflectance Index (SRI) ratings or solar reflectance percentages such as StarShield 97%, Arkema 95%, with Dewpoint's claimed 93% reflectance placing it within the competitive range. Similarly, promises of energy reduction for air conditioning (15-45%) are ubiquitous, though a lack of standardized measurement makes direct comparison difficult [16].

Dewpoint's application efficiency requiring two coats and no primer is on par with most competitors, providing neither a significant advantage nor disadvantage. However, the analysis uncovers two critical areas of differentiation. First, while competitors like Arkema and StarShield emphasize dust or water repellency, their products require manual intervention for cleaning to maintain optimal reflectance [17]. In contrast, Dewpoint's self-cleaning capability, facilitated by near-daily passive water collection, is a unique offering in the Chennai market. This is a substantial advantage given the city's moderate air pollution levels, as it promises lower maintenance costs and sustained performance.

Second, Dewpoint's passive water collection capability is entirely unmatched. While benchmarks make no mention of such a feature, Chennai's history of acute water scarcity and flooding makes this a highly relevant value proposition [18]. This capability allows for rainwater harvesting from roof surfaces, providing a direct, non-energy related utility that addresses a critical urban challenge.

A key weakness identified is Dewpoint's current lack of adherence to recognized sustainable production standards, such as the European Norm (EN) standards claimed by LuminX and StarShield [19]. In a market where quality certifications like ISO and GRIHA enhance credibility and brand image, this gap could hinder market acceptance among environmentally conscious institutional buyers [20].

4.2. Customer Segments, Relationships, and Channels

The benchmark analysis reveals a homogenous approach to customer targeting, with all identified players broadly focusing on the residential and commercial sectors. This creates an opportunity for market segmentation. As illustrated in table 2, several niche segments remain underserved, most notably the public and educational building sectors. These segments are characterized by large roof areas, high energy consumption, and are often influenced by government sustainability initiatives, making them ideal early adopters for Dewpoint's value proposition [21].

Table 2. Unmet niche segments for cool-roof solutions.

Unmet Segments	Description
Traditional Residential Areas	<ul style="list-style-type: none"> • Old residential areas (i.e. Mylapore, Triplicane, Georgetown) • • Historic residential buildings made of unique materials such as terracotta tiles and thatched roofs (Government of Tamil Nadu, 2019).

Low- and middle-income housing	<ul style="list-style-type: none"> • Gap in targeting low- and middle-income housing segments in Chennai (particularly in neighborhoods like Tambaram, Pallikaranai, and Perumbakkam). • Large population living in apartment complexes and individual homes with conventional roofing materials like concrete (National Renewable Energy Laboratory, 2010).
Informal Sector and small businesses	<ul style="list-style-type: none"> • Informal sector and small businesses in areas like T. Nagar, Saidapet, and Guindy typically operate in buildings with non-traditional roofing materials such as asbestos sheets and metal roofs (Narasimhan et al., 2017). • Structures often lack proper insulation, leads to high indoor temperatures and uncomfortable working conditions, especially during the hot months in Chennai. (Narasimhan et al., 2017).
Public buildings and educational institutions	<ul style="list-style-type: none"> • Public buildings and educational institutions, such as government offices, schools, and colleges, represent another segment that has not been targeted by benchmarks • Often have large roof areas and high energy consumption. (Pandian et al., 2021).

Regarding customer relationships, established players like Arkema and Excel Coatings focus on long-term partnerships through commercial excellence programs and after-sales services. SCS offers a 3-year warranty to build trust. Dewpoint's stated lack of focus on customer relationships presents a significant strategic gap that must be addressed to ensure customer retention and satisfaction.

Distribution channels are predominantly multi-channel, leveraging a mix of physical distributors, dealer networks, own websites, and e-commerce platforms like IndiaMart. The strong consumer preference for local stores in Chennai for personalized experience suggests that a purely direct-to-consumer (DTC) online model would be insufficient for Dewpoint. A hybrid approach, leveraging a local partner's physical distribution network, is necessary for market penetration [22].

4.3. Infrastructure and Core Capabilities

The key activities of benchmark companies heavily emphasize R&D, innovation, and strict quality control to obtain international certifications. StarShield, for instance, underscores its competitive edge through over 15 patents and 50 research papers [23]. This highlights that technological innovation and third-party validation are table stakes in this industry. Dewpoint's university research foundations are a starting point, but continuous R&D investment is crucial.

The key resources underpinning these activities include in-house R&D labs like StarShield, Excel Coatings, patented technologies, and partnerships with research institutions like IIT-Bombay and CEPT University. As a startup, Dewpoint lacks these extensive physical and intellectual resources, underscoring the necessity of strategic partnerships to access complementary capabilities.

Analysis of key partners reveals that benchmarks leverage networks across the value chain: distributors for market reach, government bodies like the GRIHA Council for policy alignment, and R&D institutions for innovation. For manufacturing, a partnership with a local, eco-focused manufacturer like Solo Paints an ISO 9001:2015 certified company with over a decade of experience is identified as a viable option to achieve economies of scale and local market integration without direct competition.

4.4. Financial Viability

The cost structure analysis, based on financial benchmarks, justifies the proposed allocation for Dewpoint, as shown in Table 3. High material costs (40-50%) align with industry leaders like Asian Paints (60.9%), while a higher R&D allocation (5-15%) than Arkema (2.89%) is prudent for a startup refining its technology [24]. The suggested high-end pricing strategy of 500 INR/litre is supported by benchmark pricing (e.g., StarShield at 449 INR/litre) and is justifiable through Dewpoint's differentiation [25].

Table 3. Cost Distribution of Selected Financial Benchmarks Compared to Recommendations for Dewpoint Innovations.

Com pany	Reve nue	R&D Expen ses	Materi al Costs	Emple yee Benefi ts Expens e	S&A Expens es	Opera ting Expens es	Othe r Expe nses
Arke ma	€9,514 million (~AUD 14.73 million)	€275 million (~AUD 425.5 million) - 2.89%	-	-	€874 million (~AUD 1.35 million) - 9.2%	€7,554 million (~AUD 11.68 million) - 79%	-
Kans ai Nero lac	AUD 127.46 million	AUD 0.73 million - 0.57%	AUD 89.20 million - 70%	AUD 5.98M - 4.7%	AUD 21.67 million - 17%	-	AUD 21.67 M - 17%
Asia n Paint s	AUD 5.41 million	AUD 1.94 million - 0.36%	AUD 329.90 Million - 60.9%	-	AUD 106.73 million - 19.7%	-	-
Dew poin t	-	5-15%	40-50%	10-15%	20-25%	5-10%	-

The projected revenue structure, outlined in Figure 2 and Figure 3, is based on targeting the public and educational building niche. Assuming a conservative capture of 10% of this niche market in Chennai over five years, and a price of 500 INR/litre, sales revenue shows a steep growth trajectory, as depicted in Figure 2. This projection, detailed in the original Appendix C, relies on a CAGR of 58.49%, from an estimated \$97,917 in 2024 to \$979,170 in 2029. Given that the total addressable cool-roof market in Chennai is

estimated at approximately \$127 million, this target is ambitious but plausible for a differentiated product in a high-growth market. Early-stage reliance on grants such as Australia-India Strategic Research Fund is recommended to bridge initial income deficits.

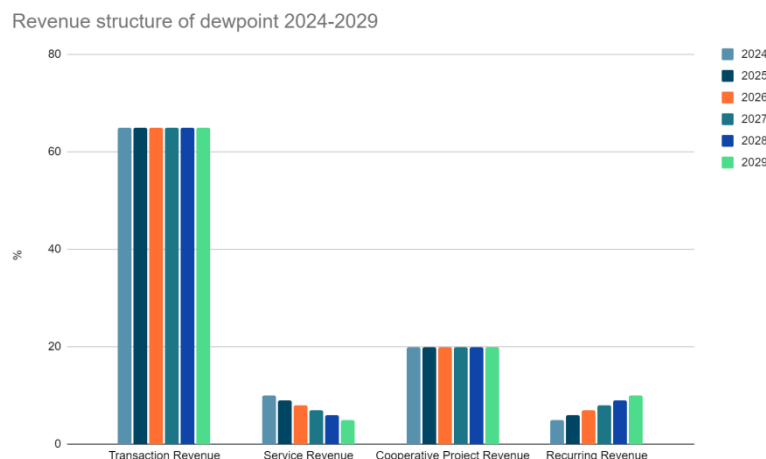
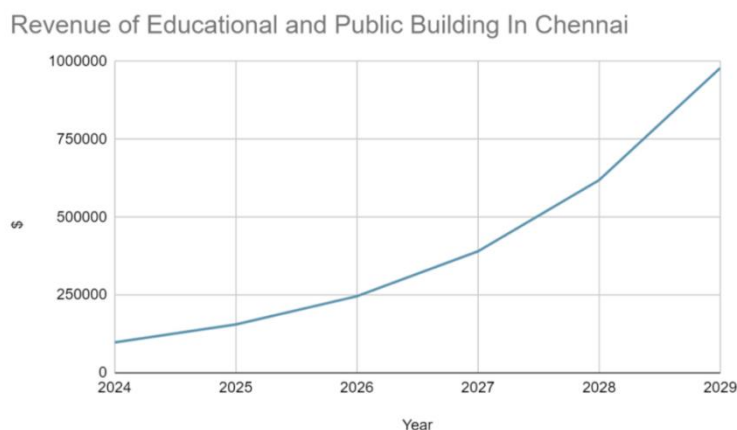


Figure 2. Estimated Revenue Structure 2024-2029.



Indicated Year	2024	2025	2026	2027	2028	2029
Total Sales Revenue	\$97,917	\$155,234	\$246,053	\$390,270	\$618,939	\$979,170

Figure 3. Dewpoint's Projected Sales Revenue from 2024-2029.

5. Discussion

The findings from the benchmark analysis reveal a clear path forward for Dewpoint Technologies, synthesizing its internal capabilities with external market realities. The discussion integrates these findings to formulate a cohesive strategic framework for market entry, structured around core strategic decisions and their theoretical implications.

5.1. Strategic Positioning and Value Proposition Refinement

The analysis confirms that competing on core cooling performance alone would lead Dewpoint into a commodity trap against larger, established incumbents. Instead, the company's sustainable competitive advantage is rooted in its unique, patent-protected resources: the self-cleaning and passive water collection capabilities [26]. According to the RBV, these attributes represent valuable and rare resources in the Chennai market, with

the potential to be inimitable due to patent protection, thereby forming the foundation of a defensible market position [10]. Consequently, Dewpoint's value proposition must be fundamentally reframed from a cooling paint to a multifunctional, low-maintenance sustainability solution. The core messaging should emphasize not just energy savings, but also the significant reduction in maintenance efforts and the unique utility of passive water harvesting in a water-stressed city like Chennai [18]. This aligns directly with Porter's generic strategy of differentiation, allowing Dewpoint to command a premium price and avoid direct, cost-based competition with volume players [11].

5.2. The Imperative of Niche Market Selection

The finding that all major benchmarks uniformly target the broad residential and commercial sectors uncovers a critical strategic opportunity. Targeting these saturated segments as a new entrant would be resource-intensive and likely ineffective. The identified unmet needs in the public and educational building sectors (see Table 3) represent an ideal strategic niche. This segment is not only underserved but also structurally aligned with Dewpoint's value proposition. Public and educational buildings typically have large, flat roof areas that maximize the impact of both cooling and water collection. Furthermore, their procurement processes are often influenced by sustainability mandates and public health considerations, making them more receptive to innovative, premium-priced solutions that offer long-term operational savings and environmental benefits. Focusing here allows Dewpoint to concentrate its limited resources, build a strong reference customer base, and establish a reputation as a specialist for institutional projects [27].

5.3. The Partnership-Based Business Model

The BMC analysis starkly highlights Dewpoint's deficiencies in Key Resources, Activities, and Channels compared to mature benchmarks. Attempting to build manufacturing, distribution, and market knowledge from scratch would be capital-intensive and slow. The proposed solution a private-label manufacturing and distribution agreement with a local partner like Solo Paints is a strategic necessity that directly addresses these gaps. This partnership model allows Dewpoint to leverage Solo Paints' existing physical assets like manufacturing plants, distribution networks, and local brand credibility, effectively plugging in to a ready-made operational infrastructure. This approach mitigates the immense risks and costs associated with greenfield market entry. It allows Dewpoint to focus its internal resources on its core competencies: R&D, technology refinement, and brand building for its differentiated product. This strategic outsourcing of non-core activities is a classic application of leveraging the value chain and partner networks as defined in the BMC [12].

5.4. A Phased Strategic Framework for Market Entry

Integrating these insights, we propose a two-phased strategic framework to guide Dewpoint's market entry, ensuring a logical progression from establishment to growth.

Phase 1: Establishment and Niche Consolidation (Years 1-5). The immediate focus should be on executing the partnership with Solo Paints and launching the product. The primary marketing message should center on the self-cleaning attribute, as it is a direct, tangible benefit related to the core function of the paint and requires no additional infrastructure from the customer. Concurrently, Dewpoint must aggressively pursue key Indian sustainability certifications like GRIHA and ISO [20], which are crucial for legitimizing the product in the institutional sector. Revenues in this phase will be supplemented by strategic grants to fund ongoing R&D and offset initial losses. The financial projections in Figure 2 are contingent on the successful execution of this phase, specifically the capture of the defined niche market.

Phase 2: Growth and product Line Expansion (Year 5 Onwards). As the product gains market acceptance and the technology matures, the strategy should evolve. The water collection capability should be moved from a secondary feature to a primary selling point, potentially through a dedicated product line. By this stage, achieving EN certification should be a priority to cement Dewpoint's position as a producer of internationally compliant, superior-quality products and facilitate potential expansion into other markets. The partnership with Solo Paints should be re-negotiated based on market performance; options range from deepening the collaboration to pursuing greater operational independence if sufficient market knowledge and financial stability have been achieved.

This phased framework provides a dynamic roadmap for Dewpoint, balancing ambition with pragmatic risk management, and ensuring that strategic actions are aligned with the company's evolving capabilities and market position.

6. Conclusion

This study set out to develop a viable market entry strategy for Dewpoint Technologies, a startup with a differentiated cool-roof paint, into the competitive Chennai market. Through a systematic analysis leveraging the Business Model Canvas and benchmarking against six established competitors, the research confirms that a conventional market entry approach would likely fail against resource-rich incumbents. The critical insight of this analysis is that Dewpoint's path to success does not lie in outperforming competitors on the common metric of cooling efficiency, but in a strategic pivot that leverages its unique technological capabilities to serve an overlooked market segment through a partnership-based model.

The core of the proposed strategy is threefold. First, Dewpoint must capitalize on its defensible competitive advantages self-cleaning and passive water collection to establish a differentiated, premium value proposition. Second, it must avoid direct competition by initially targeting the underserved niche of public and educational buildings, a segment whose characteristics align perfectly with its offering. Third, to overcome its resource constraints as a foreign startup, it must enter into a private-label manufacturing and distribution agreement with a local partner, specifically a company like Solo Paints. This partnership provides immediate access to critical manufacturing capacity, distribution networks, and local market knowledge, thereby mitigating the immense risks and costs of solo market entry. The proposed phased framework focusing on establishing a foothold with the self-cleaning feature in the first five years, followed by a growth phase emphasizing water collection and international certifications provides a realistic and actionable roadmap.

This study contributes to the broader discourse on technology startup commercialization in emerging markets by demonstrating the critical interplay between a firm's unique internal resources as per the RBV, a focused competitive positioning as per Porter, and a strategically designed business model as per the BMC. For practitioners, this case offers a replicable strategic framework for startups facing similar challenges: identify and leverage a truly unique capability, find a niche underserved by incumbents, and forge partnerships to compensate for resource gaps. Future research could longitudinally track the implementation of this strategy to validate its efficacy or apply this framework to other emerging markets and sustainable technology sectors to further refine its generalizability.

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