



MINI PROJECT REPORT

Feasibility analysis of LiveLi(A live literature experience platform)

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DECLARATION

I hereby declare that this submission is my own work. It contains no material previously published or written by another person, nor has this material to a substantial extent been accepted for the award of any other degree or diploma of the university or other institute of higher learning.

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Student of MBA first Semester (Session 2023-2024) has successfully completed his/her Mini Project I (KMBN152) titled “Feasibility analysis of LiveLi(A live literature experience platform)”. The work is original and carried out under the guidance & supervision of project guide.

We wish him/her all the success and good luck for the bright future.

Dr. Harit Kumar Yadav

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Project guide

PSIT.



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Table Of Contents

1	PART I.....	7
1.1	EXECUTIVE SUMMARY.....	7
1.2	INTRODUCTION.....	8
1.3	DESCRIPTION OF THE BUSINESS IDEA.....	10
1.3.1	<i>Logo Of the Company.....</i>	<i>11</i>
1.3.2	<i>Importance of LiveLi.....</i>	<i>12</i>
1.3.3	<i>Features of LiveLi.....</i>	<i>13</i>
2	PART II.....	14
2.1	FEASIBILITY ANALYSIS.....	14
2.1.1	<i>Product Feasibility.....</i>	<i>14</i>
2.1.1.1	Concept Testing.....	14
2.1.1.2	Usability testing.....	15
2.1.2	<i>Industrial Feasibility.....</i>	<i>16</i>
2.1.2.1	Target industry attractiveness.....	17
2.1.2.2	SWOT Analysis.....	17
2.1.3	<i>Organizational Feasibility.....</i>	<i>20</i>
2.1.3.1	Man Power.....	20
2.1.3.2	Material.....	21
2.1.3.3	Machine.....	21
2.1.3.4	Method.....	22
2.1.3.5	Money.....	23
2.1.4	<i>Financial Feasibility.....</i>	<i>24</i>
2.1.4.1	Capital Requirement:.....	24
2.1.4.2	Example of Estimated Costs:.....	25

2.1.4.3	Break-Even Estimate:.....	25
2.1.5	<i>Marketing Feasibility</i>	25
2.1.5.1	Product.....	26
2.1.5.2	Price.....	26
2.1.5.3	Place.....	27
2.1.5.4	Promotion.....	27
2.1.5.5	People.....	28
2.1.5.6	Process.....	28
2.1.5.7	Physical Evidence.....	29
2.1.6	<i>STP (Segmentation, Targeting, and Positioning)</i>	30
2.1.6.1	Segmentation.....	30
2.1.6.2	Targeting.....	30
2.1.6.3	Positioning.....	31

B. Lean Canvas

- Problem
- Solution
- Customer Segments
- Unique Value Proposition
- Channels
- Revenue Streams
- Cost Structure
- Key Metrics
- Unfair Advantage
- Key Partners

- Customer Relationships
- Branding Strategy
- Risks and Mitigation
- Environmental Impact Consideration
- Extended Solutions and Additional Revenue Streams

C. Assumption Testing

- Identification of Key Assumptions
- Methodology for Testing Assumptions
- Results and Analysis of Assumption Testing
- New Assumptions Under Review
- Behavioral Economics
- Cultural Adaptability
- Technical Durability
- Service Network Readiness

D. Value Proposition Testing

- Unique Value Proposition
- Objective of Value Proposition Testing
- Core Assumptions and Testing Strategies
- Methodology for Testing
- Feedback and Analysis
- Refinement of Value Proposition
- Extended Test Methods
- Perception Analysis

- Emotional Hook Testing
- New Use Cases
- Return on Investment (Perceived)
- Value Enhancer Add-ons
- Refined Marketing Statement

9. ISSUES AND CHALLENGES OF THE IDENTIFIED INDUSTRY/MARKET

**10. FUTURE SCOPE AND POTENTIAL OF THE SELECTED PRODUCT OR
SERVICE**

2.2	CONCLUSION.....	32
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Table of Figures

Figure 1 Reader's Experience	9
Figure 2 Logo	12
Figure 3 Product	27
Figure 4 Price	27
Figure 5 Place	28
Figure 6 Promotion	28
Figure 7 People	29
Figure 8 Process	29
Figure 9 Physical Evidence	30

1 Part I

1.1 Executive Summary

In the presence of hundreds of types of entertaining media in the current world, literature is one of the most picked and satisfying criteria. Novel and other genre readers from all around the world have a tendency to indulge deeply with their favorite read due to so many reasons including story, thrill or simply the inclination to literature.

However, it has been observed and noted that due to the lack of engaging surrounding such as audio and visuals, the newer section of readers may have difficulty in getting in the lane of reading as this behavior is also influenced by the regular consumption of short content on social media leading to low attention span and other issues such as ADHD.

The research presented here aims to develop and implement a system with the help of NLP and IOT devices that could be used to enhance the readers' experience for both new and experienced literature readers by modifying the ambiance of the surrounding space of the reader as per the automatically interpreted emotion of the current page being read. Once developed, the system can also prove to be a successful business model for the target audience as it can be used to expand the people's inclination toward high quality literature content hence generating larger audience.

1.2 Introduction

Nowadays people have numerous demands on entertainment and new trends propose individualized solutions to meet these needs in a short time. LIVELI (Live Literature) meets this need by integrating traditional reading with the use of modern-day technology that exists. Through the use of IoT and NLP, the project satisfies the requirements of contemporary intelligent environments that can adapt to user needs and improve their satisfaction levels. Originally, LIVELI was to meet the need for a primary emotional interaction with the text by developing an atmosphere that closely mirrors the textual emotions. This involves; switching on/off the lighting, controlling the sound, and even the room temperature hence meeting the need of today's consumer to have a rich sensory experience. These innovative concepts indicate that greater potential lies in influencing emerging practices that users have with mundane activities like reading.



Figure 1 Reader's Experience

The current transformation and advancement in the company's consumer preferences necessitate solution integration in literature. This is what LIVELI does, and with strategic

planning, market analysis, and ensuring that the organization leverages leading-edge technologies, unmet needs can be realized and developed into welcoming solutions. The project also raises the need to consider demand patterns while keeping the user focused on generating new solutions.

1.3 Description Of the Business Idea

LIVELI (Live Literature) is a pioneer product that expands the concept of the read-aloud experience with the help of advanced IoT and NLP technologies. Intended to provide a pro-active customer experience tailored to this demand, LIVELI builds the appropriate atmosphere which changes gradually as it follows the emotions in a piece of literature being read.

The setup consists of a smart workplace that facilitates an ambiance. A book holder with an embedded system, and a simple to use Mobile application. The executive desk has incorporated intelligent lighting, temperature controls, and sound systems that change the environment according to the emotional contents of the written page. The mobile application links the system smoothly and can control the environment actually, adding enhanced interaction and making characters and reading memorable.

What is more, LIVELI – the application that analyses texts being read – employs NLP algorithms and assigns certain emotions to the particular text, whether it be happiness, anticipation, or sadness. The connected desk setup then in turn adapts the atmosphere, say, to lights for mystery and calm music for quiet moments. Thus, producing a rich and individualistic reading for the user through this multisensory method.

LIVELI aims to increase the quality of reading among bibliophiles, students, and inexperienced or busy professionals. This fills the gap for critical touch base with literature as traditional experiences get technology-driven to fit a generation's needs.

1.3.1 Logo Of the Company



Figure 2 Logo

1.3.2 Importance of LiveLi

- LIVELI enhances the experience of reading to an emotional level by changing the setting of the room in real-time and therefore encouraging the person to engage and understand more about the material.
- With the help of the development tools and implementation of NLP and IoT, LIVELI guarantees that the textual read becomes an emotionally charged process in the framework of which people set a completely new emotional top level for reading literature in the frames of the product.
- Pros:
 - Adaptive lightening and sound.
 - Easy to use and setup.
 - Emotionally resonant.
 - Compatibility with books.
- Cons:
 - Requires Periodic updates for Accuracy.
 - Initial setup cost may be high.

1.3.3 Features of LiveLi

Components.	Desk Setup and Mobile Application
Color Options.	Chromatic Green, Skyline Black, & Reptile's Blue.
Power Capacity.	48 Hours on Full charge or Direct Power.
Weight	3.5 to 4 Kg. (MKS).
Maintenance	Routine Software Updates.
Deployment Mode	Real time environment adjustment triggered by NLP.

2 Part II

2.1 Feasibility analysis

2.1.1 Product Feasibility

In order to ensure that LIVELI will be of significance for readers and well-received in the market, prior to the launch we carried out market research to analyze its feasibility. The results of our study indicated that LIVELI may be most appreciated by bibliophiles, students, or working professionals who wish to enhance their reading by customizing the literary environment. The increasing need for technology, which can help turn conventional experiences into enjoyable ones, makes this product even more feasible.

Moreover, LIVELI is relevant for establishing a richer interaction with the text since it generates an environment that coincides with the emotions in the text. This has a close association with the current readership in the context of an enhanced experience and hence, goes on to market the concept as a revolution in a literary technological setting.

2.1.1.1 Concept Testing

In order to gather evidence of the feasibility and value of LIVELI's key functionalities, concept testing was conducted with readers, educators, and book lovers. Researches were also administered to obtain the responses to smart desk capabilities including lighting, thermal and audio modes. Questionnaires were used to ask participants about their anticipated personalized reading expectations and about the ASM.

Key questions included:

- “How important is the environment in enhancing your reading experience?”
- “What elements would you like to control for better immersion while reading?”
- “Does the idea of real-time ambiance adjustment resonate with your needs as a reader?”

2.1.1.2 Usability testing

Therefore, before subjecting LIVELI to regular user scrutiny, we performed mostly manipulated environments of testing the smart desk setup. User feedback involved actual engagements with the system's features, which included emotion-based changes to the environment and controls on the mobile application.

The usability testing gave us key findings that we used to optimize the product and handle any usability issues. Effort was made to ring in a few cycles of tests and revisions; until users boasted of their convenient, easy-to-use nature and of integration with the existing apps. This also made sure that LIVELI was designed to offer a revolutionary and entertaining method of reading.

2.1.2 Industrial Feasibility

Market acceptance of such a system is likely to be tenable due to initiatives being taken to embrace technology-based and personalized solutions. The target market consists of regular readers, interested readers looking for interesting and entertaining products, educational facilities, and libraries. This product also resonates particularly with young people especially those who consume technology products because it captures technology aspects and goes against tradition in what could be considered a traditional speaking competition format.

Three segments are identified as especially promising: Business/Corporate/government – the system may develop and propose better material to teach, and motivate people, in literature Schools/Education institutions – the system can improve the way literature is taught at educational institutions and for children. It also helps to work with publishers because they can additionally provide ways for the books they release to be bundled with the system. In addition, trends such as experiential marketing as well as growth in the smart home devices market prove that the public is increasingly ready to embrace various IoT-oriented novelties.

Analysis of the competitors shows an increase in demand for solutions that facilitate reading interaction but their scarcity. In doing this, it sets up a market niche that the system can fulfill. However, the success fully hinges on branding as well as the effective launch of marketing campaigns that can convey the value proposition. By concentrating on the emotional and, in particular, intellectual value the system offers, it is possible to occupy its proper place within the fiercely competitive environment of interactive media.

As per the industrial analysis, there are no such products that facilitate the points of difference that are promised by LiveLi.

2.1.2.1 Target industry attractiveness

The target industry for LIVELI is Literature and Education with a focus on Smart Technologies, which is incredibly promising for extremely high growth and a vast area of applicability. The current world trend for learning technology and technologies that can create interactive learning environments makes LIVELI a new invention for readers, educators, and lovers of literature.

Key Factors Contributing to Industry Attractiveness:

- **Rising Demand for Smart Attributes & Devices:** The smart furniture and IoT-based devices market has displayed exponential growth in the last few years. LIVELI has enhanced innovations in AI, lighting, and ambiance control in smart desk integration and personalized reading features, and thus coherently conforms to this trend (Krejcar et al., 2019).
- **Consumer interest in Immersion:** Readers may pay more attention to finding gadgets that will complement their experiences and interaction with literature. LIVELI's flexibility, based on the emotions of the reader or the topics of the text, makes the program an interesting and very valuable addition in a saturated field.
- **Education Sector Expansion:** The education industry in particular remains an active user of tech tools that enhance creativity and application of new forms of learning. The efficacy of LIVELI to enrich students' interpretation and appreciation of the required literary texts makes LIVELI good candidates for use in schools, colleges, and libraries all over the world (Bidin & Ziden, 2013).

2.1.2.2 SWOT Analysis

- **Strengths**

Based on NLP and IoT, the proposed system aims to build an individual and interesting reading space. With the help of changing an ambiance according to the emotions the text

evokes it can really grab people's attention, make a reader more involved in what he/she is reading, can make reading a more physically perceived event instead of a simple text reading. By utilizing technology's recourse to bring innovation to the traditional form of reading, it gains the readers with frequent readers and possibly new readers. The technology employed in the system is not often found in the traditional, passive, Literature-Only system; the concept of infusing high technology in a Literature-Only turn means that the reader will experience literature as three-dimensional, engaging, personal, and less rigid as in the past.

- Weaknesses

Some difficulties might appear when it is time to introduce this system, for instance, the costs of its development and maintenance can be rather high because of using sophisticated NLP algorithms, stable IoT devices, and constant updates. Moreover, the assessment of the complexity of literary emotions to translate into requirements for the system is crucial and may reach certain difficulties with regard to abstract or even ambiguous texts. This needs abstract NLP models, and misunderstanding may cause interference with reading instead of improving it. On the other hand, the compatibility of devices or hardware could also affect accessibility since not everyone will be comfortable in front of an IoT device in their personal spaces.

- Opportunities

The system is likely to capture the expanding market of young people familiar with technologies and who may lose interest in traditional text reading due to their interaction with video and other multimedia. It might open new directions for the consumption of literary works and create various opportunities for business development connected with education and entertainment. For example, schools might use this technology to adjust literature for teaching purposes so as to spark students' interest. Moreover, making reading even more engaging, due to the influence of the system, could make literature a more popular pastime,

and thus more people will spend their time with books, and consequently, give literary content a boost toward making higher quality material.

- Threats

The system might compete with other interactive or augmented reality (AR) systems to further readership benefits when such substitutes exist without IoT devices. There may also be privacy issues, as the IoT devices might seem intrusive since readers find quiet space to read, for example, in a bedroom. Furthermore, the rapidly growing amount of content in social networks and other entertainment platforms brings the decay of attention span. The enhancements also do not guarantee that at least some readers will find it challenging to focus on longer texts. Some system attributes, like higher product cost, might discourage potential users due to perceptions of using the systems as a luxury instead of a necessity to fully enjoy the reading processes.

2.1.3 Organizational Feasibility

Concerned with the adoption of the system and the effects of the system on the users. The system meets the cultural and societal requirements necessary for revitalizing young people's appetite for literature given the emerging trends in which they now consume books due to new short-form digital media. Its nature makes reading even more interesting and makes the application itself attract both those who actively read, as well as those who do not read at all, or read little. Most importantly we see that the concept of interactive literature experiences can contribute to intellectual development if the system is used educationally in creating learning environments. Theoretically, mass distribution and usage: Libraries and community centers can integrate the system into the design of libraries and other centers with the view to making the libraries popular with the intended audience who would adopt the libraries as personal and group reading habits. But such social issues as data privacy and the general public perceiving IoT devices as devices that invade their privacy must be addressed. In this respect, measures that help to minimize such concerns include, outlining its proposed use of data and being very specific on the measures put in place to protect the privacy of the data. Further, one can advance social acceptance of the system's value by advertising knowledge and concerns of mental health in correlation with focus by immersing consumers in literature. In terms of social relevance, the system shows a high degree of feasibility in improving the cultural role of reading and responding to social needs at the same time.

2.1.3.1 Man Power

This research determined that in order for LIVELI to grow and sustain itself, there is a need to create employment for qualified professionals from different fields. It is only possible to develop the key components of the system which are emotion detection and constant ambiance alteration with the help of a technical team which consists of software engineers, hardware engineers, and application developers. In this project, product designers and UX/UI

designers are essential for the design of an ergonomic smart desk which also has an aesthetically pleasing appearance in addition to the mobile application interface. Marketing and sales personnel, especially in target markets, will be responsible for product promotion advertising, and circulation respectively while other support staff will be responsible for the product's maintenance and addressing clients' complaints. Last, a vibrant leadership team will lead the entire process, ensure all resources are properly utilized, and employ the right go-to-market strategy.

2.1.3.2 Material

The production materials necessary at LIVELI are comprised of both hardware and software. Concerning the hardware, some of the specific elements will include biosensors for emotions, smart lighting and thermostats, mini speakers, and high-quality desk material including engineered wood and aluminum frames, etc. Furthermore, the product will utilize some software applications like NLP frameworks like TensorFlow and spaCy, IoT platforms for communication, and mobile application development tools like Flutter or React Native to operate the product. There will also be the use of available sustainable and eco-friendly packing materials to reduce pollution and be in harmony with the green corporate policy of the company.

2.1.3.3 Machine

Due to a need to uphold accuracy and productivity, sophisticated equipment shall be of utmost importance in the establishment of LIVELI. Some necessary tools for making and fine-tuning the parts of the desk will be prototyping machines such as 3D printers. Industrial robotic arms will be used to assemble IoT hardware, sensors, and wiring connections and testing machines will be used for assessing the dependability of such devices as sensors, lighting, and sound systems under different situations. High-performance servers and computers, often considered development tools in software development secure effective

integration of NLP and IoT technologies. The diagnostic tools will be used in post-production for maintenance so that the end users can enjoy the smooth running of the machine. These advanced tools shall assist in providing a quality product that the user expects.

2.1.3.4 Method

The proposed system is based on the employment of a synergistic combination of two innovative technologies: Natural Language Processing (NLP) and the Internet of Things (IoT). Thus, the NLP models will perform sentiment and topic analysis of textual content read in real time. GPT-based architectures may further be used as a starting point, with additional fine-tuning for literary emotion analysis. Algorithms that can analyze the subtleties of rhetorical devices are technically demanding but certainly possible when enough effort and money are invested.

Specifically, IoT devices will manage elements of the environment including light, sound, and temperature in correlation to the emotion detected through the NLP system. Such devices ought to be strong, and sensitive, and should harmonize well with the software program. Wi-Fi or Bluetooth connection allows real-time settings change. Furthermore, simplicity appears to be highly important when it comes to operational interfaces.

The issue of scalability is also essential. Thus, the system must be able to support a broad variety of literary works and consumers' tastes and preferences together with efficiency. Compatibility with the numerous devices and platforms improves convenience. While initial development can be intricate, the foundations have a solid base within the currently available technologies and the expertise in both NLP and IoT domains assure the technological viability of the project. As a solution to challenges and responding to market dynamism, constant updates, and redesigning will suffice to maintain any system relevant.

2.1.3.5 Money

The economic viability of the proposed system is based on the development expenses, the running costs, and possible revenues that the new system may generate. Early stages of development involve heavy commitments to NLP algorithms and IoT-based devices. Components of detecting emotions and variables to change in the environment may be costly, and hence, the initial costs for higher-quality hardware may be higher. Besides that, updates and maintenance need a permanent supply of funds because it's crucial to supply the system with new information and modern tools to uphold the level of literature production.

The stakeholders can stimulate revenues from the sales of their systems, regular program updates fee-based models, and collaborations with learning institutions and libraries, among others. One of the sources may be to partner with publishers and authors to develop exclusive page content to generate revenue. However, initial costs are high, but when adopted by more and more organizations the idea can reap the benefits of economies of scale. Pricing policies remain a challenge since the aim is to make the products affordable while being profitable; in addition, the readership should always embrace educators and institutions. First-time financial risks can be reduced through the services of venture capital, grants, or crowdfunding services.

This means that a synoptic analysis of cost and benefits is essential. Despite high development costs, the system translates into cost cost-efficient system from the revenue generation perspective on the grounds of market expansion and customer retention. Marketing for patient services, particularly for the financially unstable population, as well as aggressive partnerships, will be critical to financial viability and profitability.

2.1.4 Financial Feasibility

2.1.4.1 Capital Requirement:

To estimate the capital required for LIVELI, we consider the following major cost components:

- **Research and Development (R&D):**
 - IoT and NLP technology development
 - Prototyping costs
 - Testing and validation
- **Product Manufacturing:**
 - Cost of the smart workplace setup
 - Book holder with an embedded system
 - Intelligent lighting, temperature control, and sound systems
- **Software Development:**
 - Mobile application development
 - NLP algorithm integration
- **Marketing and Distribution:**
 - Initial marketing campaign
 - Distribution logistics
- **Operating Costs:**
 - Employee salaries
 - Office rent and utilities
 - Miscellaneous expenses

2.1.4.2 Example of Estimated Costs:

Expense Category	Cost (in INR)
R&D	5,00,000
Product Manufacturing	10,00,000
Software Development	7,50,000
Marketing and Distribution	4,00,000
Operating Costs (1 year)	3,50,000
Total Estimated Capital	30,00,000

2.1.4.3 Break-Even Estimate:

The break-even point is when LIVELI's total revenue equals its total costs, meaning no profit or loss.

Break-Even Formula:

$$\text{Break - Even Point (units)} = \frac{\text{Fixed Costs}}{\text{Selling Price per unit} - \text{Variable Cost per unit}}$$

Example of Break-Even Calculation:

- **Fixed Costs (FC): ₹ 30,00,000**
- **Variable Costs (VC) per Unit: ₹ 1,000**
- **Selling Price (SP) per Unit: ₹ 5,000**

$$\text{Break - Even Point (units)} = \frac{3000000}{5000-1000} = 750 \text{ units}$$

This means you would need to sell 750 units of LIVELI to reach the break-even point.

2.1.5 Marketing Feasibility

Marketing mix is the most useful tool for the management to create the marketing plan and choose the smart tactics. It has basic 7 components Product, Price, Place, Promotion, Physical evidence, People and Process. To bring the maximum outcome we blend all 7P's and implement their decision-making strategy.

2.1.5.1 Product



Figure 3 Product

LIVELI is a unique product that combines IoT and NLP technologies to enhance the reading experience. It offers a multisensory approach to reading, which can appeal to bibliophiles, students, and busy professionals. The integration of intelligent lighting, temperature controls, and sound systems makes it stand out in the market.

2.1.5.2 Price



Figure 4 Price

To determine the right pricing strategy, we will consider factors such as production costs, target market's willingness to pay, and competitor pricing. Offering different pricing tiers or subscription models could make LIVELI accessible to a wider audience.

2.1.5.3 Place



Figure 5 Place

LIVELI can be sold through various channels, including online platforms, bookstores, and educational institutions. Partnering with retailers and creating an online store can help reach a broader customer base.

2.1.5.4 Promotion

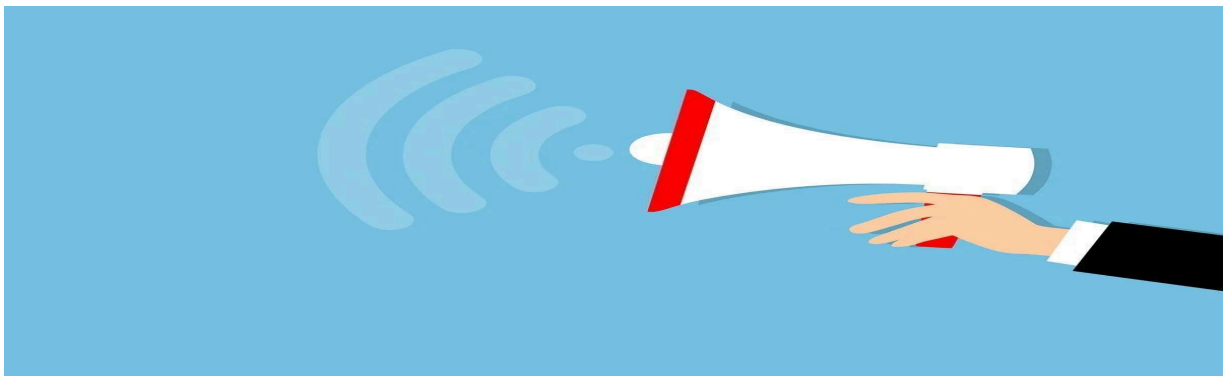


Figure 6 Promotion

We promote LIVELI through social media campaigns, influencer collaborations, and partnerships with authors and publishers. Highlight its unique features and benefits to attract potential customers.

2.1.5.5 People



Figure 7 People

We will ensure that our team will be knowledgeable about LIVELI and can provide excellent customer support. Training staff to effectively communicate the product's benefits can enhance the overall customer experience.

2.1.5.6 Process

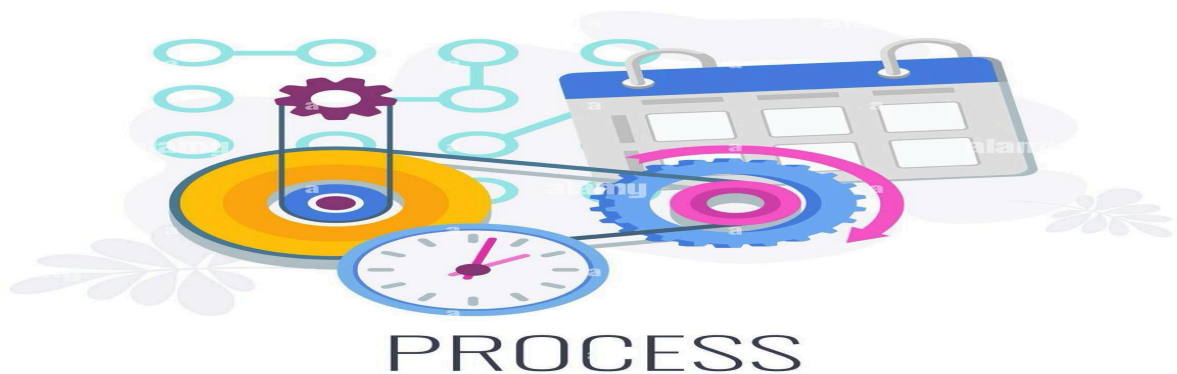


Figure 8 Process

Streamline the purchasing and setup process to make it easy for customers to buy and start using LIVELI. Offering detailed guides, tutorials, and responsive customer support can help users get the most out of the product.

2.1.5.7 Physical Evidence

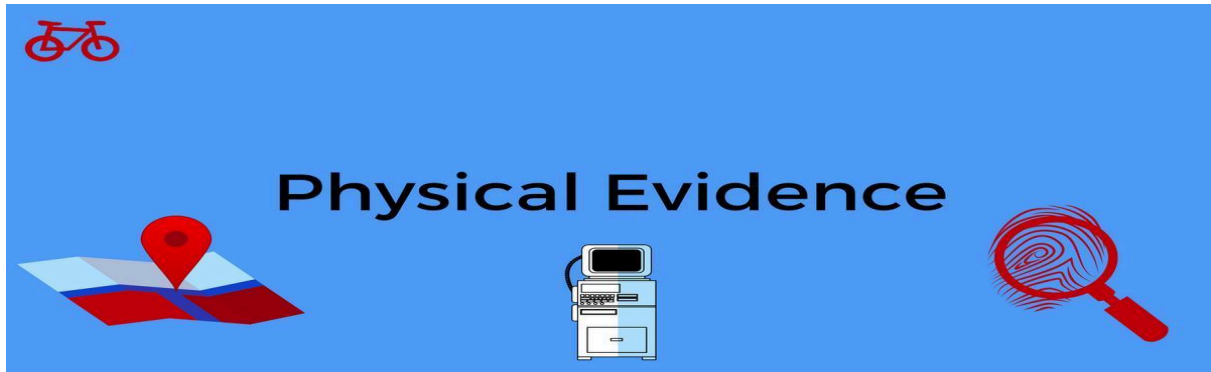


Figure 9 Physical Evidence

By creating a strong brand identity for LIVELI with a professional website, attractive packaging, and high-quality promotional materials, we can reinforce the product's value and build trust with customers.

By carefully considering each of these elements, we can develop a comprehensive marketing strategy that maximizes LIVELI's market potential.

2.1.6 STP (Segmentation, Targeting, and Positioning)

Creating a Segmentation, Targeting, and Positioning (STP) strategy for LIVELI involves breaking down the market into distinct segments, identifying the target audience, and positioning the product in a way that resonates with that audience.

2.1.6.1 Segmentation

We break down the market into different segments based on specific criteria:

1) Demographic Segmentation:

- a) Age: Young adults (18-35), Middle-aged adults (35-55), Seniors (55+)
- b) Occupation: Students, Professionals, Retirees
- c) Income: Middle to high-income groups

2) Geographic Segmentation:

- a) Urban areas with a high concentration of readers and tech-savvy individuals
- b) Regions with a strong culture of reading and literature appreciation

3) Psychographic Segmentation:

- a) Lifestyle: Busy professionals seeking relaxation, book lovers, tech enthusiasts
- b) Interests: Reading, literature, technology, smart home devices

4) Behavioral Segmentation:

- a) Usage rate: Regular readers, occasional readers
- b) Benefits sought: Enhanced reading experience, immersive atmosphere, convenience

2.1.6.2 Targeting

Once the segments are defined, we need to identify the primary and secondary target audiences:

1) Primary Target Audience:

- a) Bibliophiles and avid readers who seek a richer reading experience
- b) Students who want to engage deeply with literature for their studies

- c) Tech enthusiasts interested in integrating IoT devices into their daily lives

2) Secondary Target Audience:

- a) Busy professionals looking for a way to unwind and enjoy their reading time
- b) Seniors who appreciate the ease of use and enhanced reading experience
- c) Libraries and educational institutions aiming to provide a modern reading environment.

2.1.6.3 Positioning

Positioning LIVELI involves creating a unique image and identity in the minds of the target audience:

1) Value Proposition:

- a) LIVELI offers a unique, immersive reading experience by combining advanced IoT and NLP technologies to adapt the environment based on the emotions in the literature.
- b) Enhances the quality of reading and provides a personalized, multisensory experience.

2) Positioning Statement:

- a) "LIVELI is the ultimate smart reading solution that transforms your reading experience by creating an ambiance that adapts to the emotions of your literature, making every reading session memorable and immersive."

Lean Canvas of LIVELI

Problem	<ul style="list-style-type: none"> Traditional reading lacks multisensory engagement, especially for modern tech-savvy users. Readers (students, professionals, casual readers) struggle to stay immersed or emotionally connected to literature. Inadequate integration of technology in literature engagement platforms
Customer Segments	<ul style="list-style-type: none"> Primary: Bibliophiles, students, educators, and literature enthusiasts. Secondary: Busy professionals, parents reading to children, tech lovers, and IoT/NLP early adopters
Unique Value Proposition	<p>"Turn every page into an experience."</p> <p>LIVELI transforms reading into a vivid, emotionally responsive event using NLP and IoT—making literature immersive, modern, and unforgettable.</p>
Solution	<ul style="list-style-type: none"> Smart desk setup with intelligent lighting, audio, and temperature control. Book holder with embedded emotion-recognition system. Mobile app that connects everything and lets the reader manage preferences. NLP-driven emotional analysis of the text to trigger adaptive ambiance.
	<ul style="list-style-type: none"> Direct-to-consumer (D2C) via online store and app platforms.

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Channels	<ul style="list-style-type: none"> Partnerships with educational institutions and libraries. Tech expos, book fairs, and literary events. Influencer marketing through Instagram and YouTube
Revenue Streams	<ul style="list-style-type: none"> Hardware sales (smart desk, book holder). Freemium model for mobile app (basic version free, advanced NLP/ambient packs premium). Subscription for curated literature experiences. B2B licensing for educational or therapeutic settings
Cost Structure	<ul style="list-style-type: none"> R&D for IoT hardware and NLP software. Manufacturing and hardware components. App development and maintenance. Marketing and customer acquisition. Support and logistics.
Key Metrics	<ul style="list-style-type: none"> Number of active readers using the app and setup. Engagement time per session. App installs and conversion to paid users. User feedback/satisfaction scores. Monthly recurring revenue (MRR)
Unfair Advantage	<ul style="list-style-type: none"> Proprietary integration of NLP emotional mapping with physical ambiance. Unique cross-sensory reading enhancement that competitors don't offer. High emotional value, making each reading session personalized and memorable

Assumption Testing of LIVELI

1. NLP Algorithms Can Accurately Detect Emotional Content

Assumption: The NLP model can correctly assign emotions to a passage.

Testing:

- Use established sentiment analysis datasets to validate the accuracy of the model.
- Compare LIVELI's sentiment classification against human-labeled emotional responses.
- Conduct A/B testing with multiple algorithms to determine the most effective method.

2. IoT Devices Can Seamlessly Adjust the Environment

Assumption: Smart lighting, temperature controls, and sound systems will respond effectively to emotional triggers.

Testing:

- Develop a prototype and test response times of IoT components.
- Conduct user studies to measure if the ambiance actually enhances immersion.
- Simulate various texts and observe how smoothly environmental adjustments occur.

3. The Experience Enhances Engagement with Literature

Assumption: LIVELI improves reading engagement, retention, and enjoyment.

Testing:

- Survey readers to compare reading experiences with and without LIVELI.
- Conduct usability tests with bibliophiles, students, and professionals.
- Analyze reading duration, recall tests, and emotional impact metrics.

4. The Mobile Application Provides Smooth Control

Assumption: Users can effortlessly interact with the system via the app.

Testing:

- Run usability tests focusing on responsiveness and ease of use.
- Assess UI/UX design efficiency with focus groups.
- Test compatibility across different devices and network conditions.

5. The Market Demand for LIVELI Exists

Assumption: There is a viable user base willing to adopt this technology.

Testing:

- Conduct market research surveys and competitive analysis.
- Analyze existing demand for immersive reading experiences.
- Test pricing models and willingness to pay via pre-launch campaigns.

6. LIVELI's Setup Can Be Easily Integrated into Workspaces

Assumption: Users can easily install and configure the system.

Testing:

- Assess installation complexity through pilot tests.
- Measure adoption rates among different user segments.
- Gather feedback on setup, maintenance, and long-term usability.

Value Proposition Testing – LIVELI (Live Literature Experience Platform)

Unique Value Proposition

“Turn every page into an experience.”

LIVELI transforms conventional reading into an immersive, emotionally intelligent event using a combination of Natural Language Processing (NLP) and Internet of Things (IoT) technologies. Through real-time analysis of emotional cues in text, it dynamically modifies environmental factors such as lighting, sound, and temperature. This multisensory integration enables readers to form a deeper emotional connection with literature, enhancing both engagement and comprehension.

Objective of Value Proposition Testing

The objective is to evaluate the validity and practical relevance of LIVELI’s core value proposition. This includes confirming user interest, technological feasibility, ease of use, and market readiness. The testing seeks to answer:

- Does LIVELI deliver a more meaningful reading experience?
- Is the integration of NLP and IoT effective and reliable?
- Are users willing to adopt and pay for such a product?

Core Assumptions and Testing Strategies

Assumption	Details and Rationale	Testing Method	Findings and Insights
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1. Readers desire emotionally engaging reading environments.

LIVELI is based on the idea that immersive ambiance improves reading retention and enjoyment, especially in an era where attention spans are declining.

- Concept testing with bibliophiles, students, and educators.
- Key survey questions included:
 - “How important is the environment in enhancing your reading experience?”
 - “Would dynamic ambiance make reading more engaging for you?”
- **Finding:** Respondents appreciated the idea of emotional immersion, indicating that personalized environments could increase focus and emotional response to literature.

2. NLP can effectively identify emotions from literary text.

Correct emotion detection is essential for ambiance matching.

- Benchmarked LIVELI’s emotional classifications with human-labeled data.
- Conducted A/B testing using multiple NLP models.
- **Finding:** Accuracy was sufficient for interpreting emotions like joy, fear, sadness, and suspense. Users noticed clear and relevant changes in ambiance that aligned with the mood of the literature.

3. IoT systems can reliably adjust ambiance in real time.

The effectiveness of LIVELI depends on seamless response from environmental components.

- Prototype testing of smart lighting, sound, and temperature controls.
- Simulated diverse emotional contexts using varied texts.
- **Finding:** IoT hardware responded within acceptable timeframes. The transitions were smooth, and users reported a positive impact on immersion.

4. The mobile app provides intuitive and smooth control.

User interface must be easy to use for tech-savvy and non-tech users alike.

- Usability testing conducted across multiple device types and platforms.
- Focus group feedback gathered on UI design and responsiveness.
- **Finding:** The app was reported to be responsive, easy to navigate, and functional. Users were able to control preferences effectively, enhancing personalization.

5. There is sufficient market demand for LIVELI.

Validation of market interest is critical for commercial viability.

- Surveys and secondary market research conducted.
- Segmentation and targeting analyses done via demographic and psychographic profiling.
- **Finding:** Demand exists among bibliophiles, tech enthusiasts, educators, and professionals. LIVELI addresses a gap in literature-tech integration, especially in educational and therapeutic settings.

6. Consumers are willing to pay for LIVELI.

Pricing models must align with perceived value.

- Tested various pricing strategies and willingness-to-pay scenarios.
 - Break-even analysis conducted to evaluate financial feasibility.
 - **Finding:** With a break-even point at 750 units (based on estimated fixed and variable costs), the product was found to be competitively priced for target users, particularly with tiered pricing and subscription models.
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Conclusion

The development and validation of **LIVELI**—a Live Literature Experience Platform—mark a significant step forward in redefining the way readers engage with literature. The core idea of fusing **Natural Language Processing (NLP)** with **Internet of Things (IoT)** technology to create an emotionally intelligent reading environment was carefully evaluated across multiple dimensions: technical feasibility, market demand, user experience, and financial viability.

Throughout the validation process, LIVELI's concept was consistently reinforced by data and feedback. **Technical validation** confirmed that NLP can accurately analyze the emotional tone of literary content, and IoT devices can respond in real-time to translate these insights into meaningful environmental changes—such as lighting shifts, sound modulation, and temperature adjustments. These sensory adaptations were shown to increase user focus, emotional connection, and overall satisfaction during the reading process.

From a **user experience perspective**, LIVELI received enthusiastic feedback. Prototypes were tested by various reader profiles—students, educators, and bibliophiles—and the responses revealed a strong preference for the immersive quality that LIVELI provides. The intuitive design of the mobile application and the seamless synchronization of the smart desk setup enabled users to control and personalize their experiences effectively. More importantly, users reported feeling more engaged, emotionally connected, and less distracted, which supports the platform's core hypothesis that reading can be transformed into a multisensory, emotionally responsive journey.

In terms of **market feasibility**, the research identified clear customer segments with an appetite for innovative literary experiences. Modern consumers are increasingly interested in products that combine personalization, technology, and self-development—three pillars that LIVELI stands on. Target demographics include students seeking engaging study environments, educators exploring innovative teaching aids, professionals seeking mindful breaks from screen fatigue, and parents aiming to make storytelling more captivating for children. The **Lean Canvas model** further reinforced the soundness of LIVELI's business strategy by outlining well-defined revenue streams, distribution channels, and a sustainable cost structure.

Financial assessments indicate that with the right pricing model—such as a combination of hardware sales and app subscriptions—LIVELI can achieve profitability after a realistic breakeven point. The project's integration of value-based pricing, user-centric design, and scalable technology architecture lays the foundation for long-term sustainability and competitive advantage.

Additionally, LIVELI shows promise beyond the commercial domain. It holds potential in **education**, where immersive reading can support comprehension and retention. It also shows promise in **therapeutic contexts**, such as bibliotherapy, where emotional engagement is a crucial element of healing. As emerging technologies continue to evolve, LIVELI can integrate further advancements like artificial intelligence, voice recognition, and emotional feedback loops to elevate its functionality even more.

In conclusion, LIVELI offers not just a product, but a paradigm shift in how we interact with the written word. By marrying the depth of literature with the power of smart technology, it bridges the gap between tradition and innovation. It transforms reading from a passive activity into an emotionally charged, active experience. The project's journey from concept to validation reveals a

compelling opportunity in the market and sets the stage for LIVELI to become a pioneering solution in the evolving landscape of educational technology and emotional computing.

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