Abstract

Sleep quality and daily energy are increasingly influenced by modern lifestyle habits in Bhutan; however, there is currently no localized digital solution that helps individuals systematically understand and manage these behaviors (Sithey et al., 2017). This study examines how work patterns, screen use before sleep, and sleep duration differ between urban and rural residents in Bhutan, and how these factors are associated with sleep quality and daytime energy. These issues are not fully addressed by existing global wellness applications, which often lack contextual and integrated analysis of lifestyle factors (Deivendran et al., 2025; Naveed et al., 2020).

A cross-sectional survey was conducted using Google Forms, collecting 366 responses from urban, semi-urban, and rural residents across Bhutan. After excluding non-residents, 358 valid responses were included in the analysis. The findings indicate that urban residents generally work longer hours and engage in more knowledge-based work, while rural residents report slightly longer sleep duration. Across both groups, higher screen use before bedtime is consistently associated with poorer sleep quality and reduced daytime energy, supporting previous research linking excessive screen exposure to sleep disturbances (Deivendran et al., 2025).

Working hours show a neutral relationship with sleep outcomes in urban populations but a mild negative impact in rural populations, suggesting contextual differences in work-related fatigue and lifestyle structure (Gyeltshen et al., 2023; Naveed et al., 2020). Respondents identified reduced screen use, consistent sleep timing, and a relaxing bedtime environment as the most effective strategies for improving sleep quality. Additionally, more than 55% of participants expressed willingness to use a sleep-support application, indicating strong user demand for digital wellbeing solutions.

These findings highlight a clear gap in the market for an integrated, data-driven, and locally relevant sleep and wellbeing solution. In response, SomPel Tech proposes two core products: a habit benchmarking platform and a lifestyle-tracking mobile application. Together, these solutions aim to provide personalized, evidence-based insights to improve sleep quality and overall wellbeing, positioning SomPel Tech as a Bhutan-focused digital health and wellbeing initiative.

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Introduction

Sleep is one of the most important parts of a healthy life, yet it is something many people in Bhutan are getting wrong. Whether it is staying up late scrolling through a phone, working long hours, or simply not having a consistent bedtime routine, poor sleep habits have become increasingly common across the country. However, the way these habits form and affect people is not the same everywhere — urban and rural residents in Bhutan live and work very differently, and these differences matter for sleep and daily wellbeing.

In cities, people tend to work longer hours, engage in knowledge-based work, and spend more time on screens. In rural areas, daily life is more physically active and routines are more traditional. Despite these contrasts, very little is known about how these lifestyle differences specifically relate to sleep quality and daytime energy among Bhutanese populations. Research confirms that factors such as excessive screen use, high workload, and irregular sleep patterns are linked to poor sleep and reduced wellbeing (Sithey et al., 2017; Deivendran et al., 2025; Naveed et al., 2020), but no study has directly compared these behaviors across urban and rural groups in Bhutan.

This report addresses that gap. It presents SomPel Tech, a technology startup founded to develop simple, data-driven digital tools that help people understand and improve their sleep and lifestyle habits. The business idea is grounded in original survey research conducted with 358 participants from urban, semi-urban, and rural areas of Bhutan, examining how work, screen-use, and sleep patterns across groups, and investigates how these patterns are associated with sleep quality and daytime energy levels.

This entrepreneurial report documents the full research, analysis, and planning behind SomPel Tech. It covers the background and motivation for the business, a review of existing literature, a competitive analysis, key survey findings, proposed product solutions, a go-to-market strategy, and a risk assessment. The goal is to demonstrate that there is a genuine and underserved need for a localized sleep and wellbeing solution in Bhutan, and that SomPel Tech is well-positioned to meet it.

Internship Foundation and Concept Development

This project was developed during a six-month internship at Bhutan Data Scientists Pvt. Ltd., which provided both the theoretical understanding and practical foundation for the development of SomPel Tech. The internship created the opportunity to explore how structured data practices can be applied to build meaningful solutions for real-world wellbeing challenges.

The internship began with a training phase in which key concepts such as the Three Realms and One Domain framework and seed project development were introduced. This phase emphasized that data moves through a continuous spectrum from sensing and collection to the generation of transformational insights. Through this process, the role of a data practitioner was understood as someone who actively manages, interprets, and applies data throughout its lifecycle to create meaningful value.

A major concept introduced during the internship was the Three Realms and One Domain framework, which explains how data progresses from physical collection to logical analysis and ultimately to emotional and societal impact. This framework demonstrated that data evolves through multiple stages from sensing and storing information to transforming it into insights that can create meaningful change. The process is represented through seven stages of the data spectrum: Red (Sense), Orange (Store), Yellow (Prepare), Green (Shape), Blue (Express), Indigo (Share), and Violet (Transform).

Each stage reflects a critical step in the journey of data, beginning with the collection of raw information, followed by organization and preparation, then analysis and interpretation, and finally the communication and transformation of insights into meaningful action. This framework emphasized that data becomes valuable not simply through collection, but through systematic organization, analysis, and effective communication that allows it to generate practical and impactful outcomes (Online Courses - Learn Anything, on Your Schedule | Udemy, 2026).

Through the process of Domain Discovery and Deepening, health and wellbeing were identified as the core focus area, with particular emphasis on sleep health. This structured exploration ensured that the business concept was grounded in a clearly defined and relevant problem space. By identifying a specific domain of impact, the project was able to align data-driven analysis with meaningful wellbeing outcomes.

This understanding helped shape the idea of SomPel Tech by showing the importance of organizing data properly, preparing it well, and analysing it carefully to get useful insights. It also made it clear that raw data is turned into meaningful and useful information. Because of this, SomPel Tech is designed to develop simple tools that help individuals understand their daily habits

such as work patterns, screen use before sleep, and sleep behavior in order to improve sleep quality and daytime energy levels through personalized recommendations.

In addition to conceptual learning, the internship introduced a disciplined work structure through block-time planning and iterative work cycles known as triduums, consisting of orientation, action, and reflection phases. This structured approach supported continuous progress in data collection, analysis, and project development while encouraging reflective learning and effective time management.

As part of the development process, a 108-day data project was undertaken, involving daily planning, journaling, and structured time tracking. This consistent engagement with real-world data strengthened practical analytical skills and enabled the systematic generation of insights that form the basis of this report. It also reinforced the value of discipline and iterative reflection in building a data-driven entrepreneurial solution.

Overall, the internship experience played a critical role in shaping both the analytical approach and the business concept behind SomPel Tech. It provided the necessary skills, frameworks, and structured methodology required to transform data into a meaningful, scalable, and impact-driven entrepreneurial solution. The knowledge gained during this period laid the foundation for the creation of SomPel Tech as a data-driven initiative aimed at improving wellbeing through actionable insights.

Project Details

About

SomPel Tech was founded during a six-month internship at Bhutan Data Scientists Pvt. Ltd. as part of a project to develop a real-world business identity. The name SomPel is drawn from the founder's own name, Sonam Peldon combining "Som" from Sonam, meaning merit and good deeds, and "Pel" from Peldon, meaning prosperity and fortune. Together, the name reflects the values of purpose, positivity, and meaningful impact through technology. As the sole founder, SomPel Tech reflects the vision of using technology to create solutions that contribute to well-being, growth, and innovation in society.

Vision: To create a healthier and more balanced society in Bhutan by transforming how people understand and manage sleep, lifestyle, and wellbeing through data-driven technology.

Mission: To develop accessible and user-friendly digital solutions that analyze lifestyle habits and provide personalized insights to enhance sleep quality and day energy levels.

Objectives: To develop data-driven solutions that improve sleep quality and daily energy among urban and rural populations in Bhutan.

Specific Objectives

1. To design tools that track and analyze lifestyle patterns (screen time, sleep, work habits)
2. To provide personalized and actionable recommendations for improving sleep health
3. To generate insights that support individuals, organizations, and policymakers
4. To promote awareness of healthy digital and sleep habits through technology

Core values: WISP

- Wellbeing – Designing solutions that promote physical, mental, and social health
- Insight – Transforming data into meaningful and actionable understanding
- Self-Discipline – Ensuring consistency, accountability, and high-quality execution
- Purpose – Creating technology with clear intention and positive societal impact

Background

Sleep health is an increasingly important public health concern in Bhutan. As the country undergoes rapid urbanization and digital transformation, the daily habits of its population are shifting in ways that directly affect sleep quality and overall wellbeing. Smartphone adoption has grown significantly, internet access has expanded across urban and rural areas, and work patterns have become more demanding particularly in knowledge-based sectors.

Research based on Bhutan's Gross National Happiness survey has shown that both insufficient and excessive sleep are associated with poorer health outcomes, suggesting that a large portion of the population may not be getting the quality of sleep they need (Sithey et al., 2017). At the same time, studies highlight that high workload and job stress negatively affect mental wellbeing among workers in Bhutan (Naveed et al., 2020), while excessive screen use before bedtime is consistently linked to poor sleep quality and daytime fatigue (Deivendran et al., 2025).

These pressures are not uniform across the country. Urban residents are more exposed to digital devices, longer working hours, and sedentary lifestyles, while rural residents maintain more physically active routines and traditional sleep schedules. Despite these clear differences, no study has directly compared lifestyle habits and their effects on sleep across urban and rural populations in Bhutan, and no localized digital tool exists to help individuals monitor or address these habits.

This gap represents both a public health and business opportunity. SomPel Tech was developed to address this need by creating simple, accessible, and data-driven tools that help individuals understand their lifestyle patterns and improve their wellbeing through personalized recommendations.

Significance

SomPel Tech aims to provide a practical and accessible solution to improve sleep quality and daily energy levels through simple digital tools. The solution benefits individuals by helping them better understand their lifestyle habits and make informed daily decisions. It also promotes awareness of the importance of healthy sleep patterns and reduced screen use.

In addition, the project has strong potential within the growing digital health and wellbeing market. The platform developed by SomPel Tech is designed to be accessible to both urban and rural populations, making it a relevant and scalable solution in the Bhutanese context.

Furthermore, this project contributes to the advancement of technology-based wellbeing solutions in Bhutan, while creating opportunities for future growth, innovation, and expansion of SomPel Tech.

Literature Review

Existing research shows that lifestyle habits such as sleep duration, work patterns, and screen use have a strong impact on sleep quality and overall wellbeing. This highlights an opportunity for SomPel Tech to develop a solution that helps users monitor and manage these habits more effectively.

Research based on Bhutan's Gross National Happiness survey found that both insufficient sleep (6 hours or less) and excessive sleep (11 hours or more) are associated with poorer health outcomes (Sithey et al., 2017). This indicates that maintaining an optimal sleep duration is important for overall wellbeing. It also suggests the need for a system that can help users better understand and regulate their sleep patterns.

Sleep quality is closely linked to mental health. A study among people with epilepsy in Bhutan found that individuals with poor sleep are more likely to experience depression and social isolation (Stauder et al., 2020). Similarly, research among older adults shows that sleep problems such as insomnia are associated with lower quality of life, especially when combined with conditions like pain and depression (Dorji et al., 2018). These findings highlight that sleep is not only a physical concern but also a key factor influencing emotional and psychological wellbeing. This creates an opportunity for SomPel Tech to support users in improving both sleep quality and mental health through better lifestyle management.

Work patterns and daily routines also play an important role in sleep and wellbeing. Research on nurses in Bhutan shows that proper rest, such as taking naps during night shifts, reduces fatigue and improves work performance (Gyeltshen et al., 2023). In contrast, studies among workers in Thimphu indicate that high workload and job stress are common and negatively impact mental wellbeing (Naveed et al., 2020). This suggests that work-related factors significantly influence sleep and overall health, highlighting the need for tools that can help users manage work-life balance and its effects on sleep.

In addition, modern lifestyle habits such as screen use are increasingly affecting sleep quality. Studies among young adults show that spending long hours on smartphones, especially before bedtime, is linked to poor sleep quality and increased daytime tiredness (Deivendran et al., 2025). Higher screen use is consistently associated with sleep disturbances and reduced energy levels. This indicates that screen behavior is a critical factor influencing sleep outcomes, and presents a strong opportunity for SomPel Tech to provide features such as reminders and behavioral insights to help users reduce screen time before sleep.

Overall, existing research clearly shows that unhealthy lifestyle habits such as irregular sleep patterns, high stress, and excessive screen use lead to poor sleep and reduced wellbeing. While these studies highlight important relationships between individual factors and sleep, they often do not provide integrated or practical solutions for managing these behaviors together. This creates a clear opportunity for SomPel Tech to develop a comprehensive digital platform that combines sleep tracking with lifestyle analysis, offering personalized and actionable insights to help users improve their sleep quality and overall wellbeing.

Competitive Analysis

Understanding the existing landscape of sleep and wellness applications is essential for positioning SomPel Tech effectively. This analysis evaluates several existing platforms based on the three core lifestyle factors identified in this report: work hours, screen use before sleep, and sleep patterns to identify gaps in the market and highlight opportunities for differentiation.

WellTech provides a comprehensive digital wellness platform that integrates fitness, mental health, nutrition, and basic sleep guidance into a single ecosystem. It focuses on behavior change through habit tracking, reminders, and personalized wellness plans, supported by coaching and community engagement. While the platform is strong in delivering holistic wellness support, sleep is treated as a secondary feature and is not deeply analyzed. Its recommendations are broad and not tailored to specific user contexts such as work schedules, screen usage, or environmental factors. This creates an opportunity for SomPel Tech to provide a more focused and context-aware sleep analysis system that integrates key lifestyle factors such as work patterns and screen exposure.

Manah Wellness highlights emerging trends in wellbeing technology, including artificial intelligence, wearable devices, and digital health tracking. It emphasizes data-driven insights, mental health support, and gamified wellness systems. However, sleep is not treated as a primary focus and is instead included as part of broader wellbeing features. Additionally, the reliance on wearable devices and workplace systems may limit accessibility for users who do not have access to such technologies. This indicates a need for a more accessible, device-independent solution that prioritizes sleep as a core feature while offering localized and actionable insights.

Sleep Cycle is a widely used sleep-tracking application that monitors sleep patterns using movement and sound detection. It provides features such as smart alarms, sleep quality scoring, and long-term trend visualization, along with relaxation tools. Although it offers strong sleep tracking capabilities, it focuses only on sleep and does not consider external lifestyle factors such as work hours or screen use. It lacks contextual analysis that explains why sleep quality changes. This highlights an opportunity for SomPel Tech to go beyond basic tracking by integrating lifestyle behavior analysis with sleep data to provide deeper insights.

Digital Wellbeing focuses on managing screen time and reducing digital distractions. It includes features such as app usage tracking, focus mode, and bedtime mode. While it is effective in addressing screen usage, it does not track or analyze sleep quality. There is also no connection between screen usage and sleep outcomes. This creates an opportunity for SomPel Tech to integrate screen behavior with sleep tracking, allowing users to clearly understand how digital habits affect their sleep.

Sleep Cycle Sleep Calculator is a simple tool designed to calculate optimal sleep and wake times based on 90-minute sleep cycles. Its simplicity makes it easy to use, but it does not track actual sleep patterns or consider influencing factors such as lifestyle habits. It also lacks any analytical or predictive features. This presents an opportunity for SomPel Tech to combine sleep timing calculations with real-time tracking and personalized recommendations.

Instant is an integrated lifestyle tracking app that monitors phone usage, physical activity, movement, and sleep. It also includes a chatbot that identifies correlations between different behaviors. While it provides multi-factor tracking, its insights are mostly descriptive and lack deeper, actionable recommendations. It also does not account for work-related factors or provide localized guidance. SomPel Tech can improve on this by offering more contextual, personalized, and actionable insights tailored to individual users and their environments.

Samsung Health is a multi-functional health platform that tracks physical activity, diet, and sleep, often integrated with wearable devices. It provides users with summaries and long-term health trends. However, its approach to sleep is generalized and does not incorporate important lifestyle factors such as screen use or work hours. Additionally, its reliance on Samsung devices limits accessibility. This creates an opportunity for SomPel Tech to build a more inclusive and platform-independent solution that integrates multiple lifestyle factors and provides deeper insights into sleep behavior.

While existing applications provide valuable features in isolation, none fully integrate the key lifestyle factors that influence sleep quality. This gap highlights a strong market opportunity for SomPel Tech to develop a comprehensive, data-driven, and user-centered sleep and wellbeing solution.

SWOT analysis

Strengths

1. Clear problem focus: SomPel Tech directly addresses sleep quality, a key determinant of overall wellbeing
2. Integrated solution: Combines sleep tracking with lifestyle factors such as screen use and work patterns
3. Data-driven foundation: Built on survey findings and existing research to guide product design
4. Strong user interest: Over 50% of respondents expressed willingness to use a sleep-focused application
5. Context-aware approach: Ability to deliver personalized and locally relevant insights tailored to Bhutanese users

Weaknesses

1. Early-stage startup: The brand is new
2. Limited resources: Constraints in funding, technical development, and scaling capacity
3. Dependence on user input: Accuracy and effectiveness rely on consistent and reliable user data
4. Technical complexity: Integrating multiple behavioral factors into a single system may be challenging
5. Low brand recognition: Competing against established platforms such as sleep and health applications

Opportunities

1. Increasing demand: Growing awareness of mental health, sleep quality, and digital wellbeing
2. Market gap: Existing applications do not fully integrate work patterns, screen use, and sleep behavior
3. High smartphone penetration: Strong foundation for mobile-based solutions
4. Scalability: Potential to expand into AI-driven recommendations, wearable integration, and coaching services

5. Local relevance: Ability to design culturally and contextually appropriate solutions for Bhutan

Threats

1. Strong competition: Established platforms such as global sleep and health applications dominate the market
2. User adoption barriers: Resistance to behavior change and reluctance to adopt new applications
3. Data privacy concerns: Users may be hesitant to share personal behavioral data
4. Rapid technological change: Continuous updates required to remain competitive
5. Accessibility limitations: Unequal access to smartphones and internet in certain regions

Methodology

SomPel Tech conducted a cross-sectional analytical survey to collect data on lifestyle habits and their relationship with sleep and wellbeing in Bhutan. A structured questionnaire was developed and distributed to participants from urban, rural, and semi-urban areas, enabling the capture of diverse lifestyle patterns within a single time frame.

A total of 366 responses were collected using a convenience sampling approach, with respondents from diverse occupational and geographic backgrounds. After excluding the one who did not reside in Bhutan, 358 responses were retained for analysis.

Data were collected using an online questionnaire (Google Forms), which included sections on demographics, work patterns, screen use, sleep patterns, sleep quality and daytime energy, sleep management habits, and the use of and interest in digital sleep-support tools.

From this, it includes both independent and dependent variables. Independent variables comprised work hours, type of work, screen use before sleep, sleep duration, and place of residence (urban, semi-urban, rural). Dependent variables included sleep quality and daytime energy, which were used as key indicators of overall wellbeing.

Most questions were close-ended and used multiple-choice and Likert scale formats to measure behaviors and perceptions. Participation was voluntary and anonymous, ensuring ethical data collection.

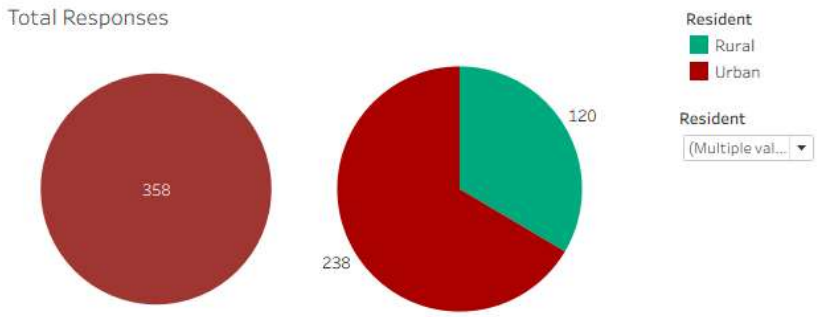
Findings

A total of 366 assessments were gathered. Since the purpose of the assessments was to learn about the rural urban lifestyle such as work, screen-use and sleep pattern differences in Bhutan, only those respondents who reside in Bhutan were included in the analysis. This resulted in a total of 358 participants.

Section 1: Demographics

Most responses were urban participants.

Figure 1. Sample Characteristics



Note: Semi-urban and urban categories have been combined.

Section 2: Lifestyle Comparison

The survey reveals clear and consistent differences in work patterns, screen use, and sleep behavior between rural and urban residents. The following subsections detail these comparisons.

2.1 Work patterns

Rural respondents are more engaged in physical work, while urban respondents are primarily involved in mental or knowledge-based work. A higher proportion of urban respondents also report engaging in a combination of both work types.

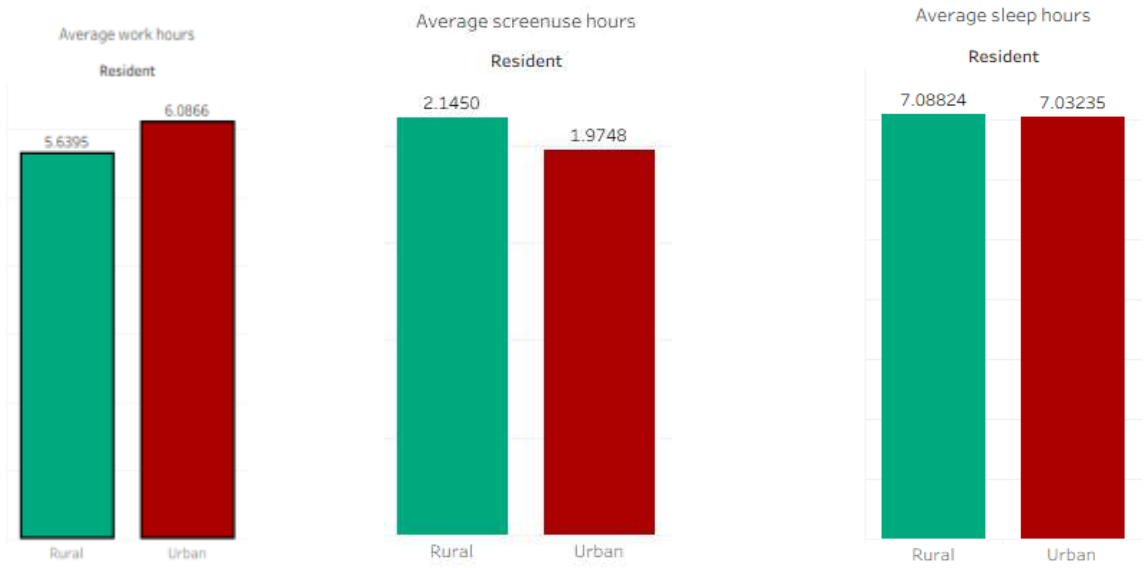
Figure 2. Types of work participants do

2.2 Core Comparative

Three core behavioral variables were measured: average working hours per day, average screen time before sleep hours, and average sleep duration hours per night. The following figures and comparative table summarize the results.

Urban respondents reported that they work slightly longer on average, while rural residents report marginally higher screen use before sleep and slightly longer sleep duration. The differences in sleep duration are minimal, suggesting sleep length alone is not the primary differentiator between groups.

Figure 3 Differences in Core Lifestyle between Residents

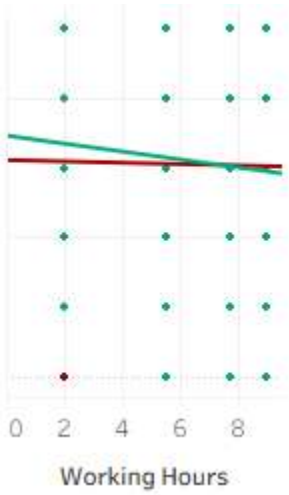


Section 3 Behavior relationship

This section examines the statistical relationships between the three core behavioral variables (working hours, screen use before sleep, and sleep duration) and outcomes: sleep quality and daytime energy levels.

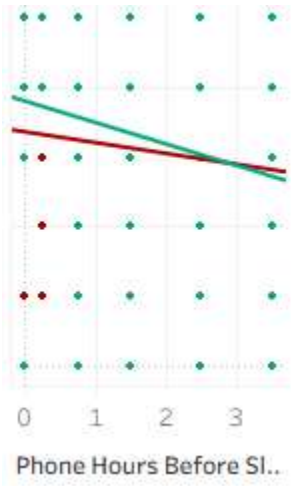
Urban residents: Neutral as changes in working hours showed no clear effect on sleep quality or daytime energy. Rural residents: Negative as working hours increased, both sleep quality and daytime energy tended to decrease slightly, suggesting that longer working hours have a mild adverse effect on wellbeing in rural populations.

Figure 4. Average working hours with outcome



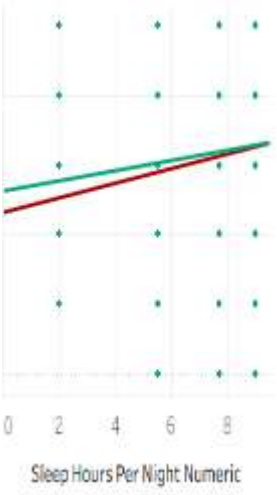
Urban and Rural residents: Negative as in both groups, greater screen use before sleep was associated with poorer sleep quality and lower daytime energy levels. This negative effect appeared more pronounced among rural residents, indicating that screen use before bedtime is a consistently harmful habit regardless of location.

Figure 5. Average screen use before sleep hours with outcome



Urban residents: Neutral as longer sleep duration did not clearly improve sleep quality or daytime energy, suggesting that sleep length alone is not a reliable predictor of wellbeing in urban populations. Rural residents: Weakly Positive as longer sleep was associated with slightly better sleep quality and energy levels; however, the improvement was modest and not strongly conclusive.

Figure 6. Average sleep hours with outcome

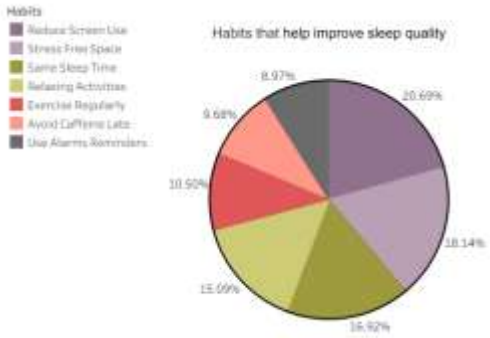


Improvement Strategies & Preferences

Respondents were asked to identify which habits they believe most contribute to better sleep quality. This insight directly informs product feature prioritization for a sleep-support application.

The top four habits are reduced screen-use, stress-free space, same sleep time, and relaxing activities.

Figure 7. Habits Believed to Improve Sleep Quality

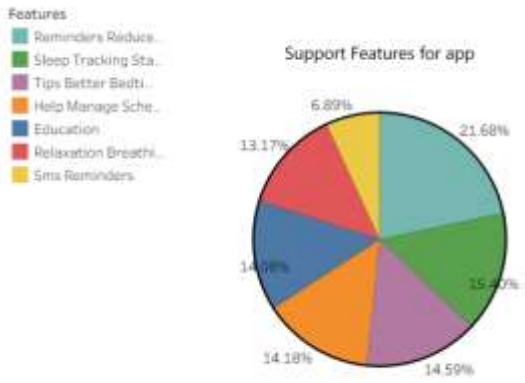


Market Opportunity

Respondents were asked to identify which features they would most value in a sleep-support mobile application. The results provide a ranked feature roadmap for product development:

The top four habits are reminders to reduce screen-use, sleep tracking, tips better bedtime and help manage schedules.

Figure 8. Support Features for a Sleep Application

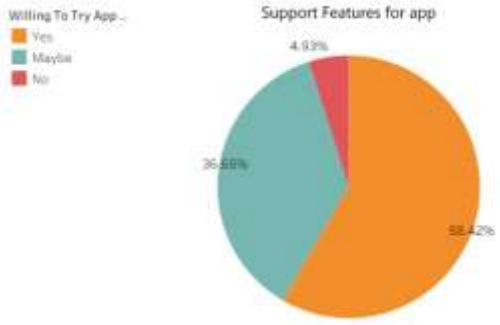


Market willingness and commercial potential

Respondents were asked directly whether they would be willing to use a sleep-support application with the features described above. The results indicate a strong commercial opportunity:

In terms of willingness to use such an app, a majority of respondents said they would be willing to try it. This indicates a strong potential interest in a sleep-support app, especially if it includes useful and relevant features.

Figure 9. Respondent Willingness to Use a Sleep-Support App Application



Proposed Solution

The findings show opportunities to develop digital tools that help people in Bhutan improve their sleep and lifestyle habits. Work patterns, screen use before sleep, and sleep behavior strongly affect sleep quality and daily energy. This shows the need for a simple and useful solution.

Based on this, SomPel Tech proposes the following products:

1. Quick Tracker (Comparison Tool)

A simple web tool that allows users to:

Enter basic habits like sleep, screen time, and work hours

Compare their habits with others

See if their habits are above or below average

Get basic insights about their wellbeing

Value: This tool helps users understand their habits in a simple way and motivates them to improve through easy comparisons.

2. Full Daily Tracker (Lifestyle Tracking Tool)

A more detailed web-based tool that allows users to:

Track sleep patterns daily

Monitor screen use before sleep

Record work and lifestyle habits

View trends in their behavior over time

Receive personalized recommendations

Value: This tool gives users deeper and more personal insights to improve sleep quality and energy levels by combining all key lifestyle factors in one place.

Future Development Potential

In the future, SomPel Tech can add a Healthy Habit Creator feature. This will help users:

• Set personal goals

• Build healthy daily habits

• Receive reminders

• Track progress over time

This feature will help users stay consistent and improve their behavior in the long term, after the main tools are fully developed.

Go-to-Market Strategy

SomPel Tech will focus on introducing its product in a simple and practical way, starting with users who are most likely to benefit from it. The main target users are students, working professionals, and smartphone users who often experience sleep problems due to screen use and busy schedules.

The product will be launched in phases. First, the benchmarking platform (comparison tool) will be introduced as a website where users can compare their habits such as sleep, screen time, and work hours with those of others. It will also allow users to see whether they are above or below average and understand how their habits relate to overall wellbeing. In addition, the platform will provide basic personalized recommendations based on users' data. This will help increase awareness, offer guidance, and encourage users to improve their behavior.

Afterward, a sleep and lifestyle management mobile application will be developed and launched. The app will allow users to track their sleep patterns, monitor screen use before bedtime, and view simple statistics along with personalized recommendations. By combining multiple lifestyle factors in one place, the app will provide practical and continuous support to improve sleep quality and daily energy.

Later, more advanced features, such as habit-building tools, can be added to further support long-term behavior change. However, these advanced features may not be fully developed by June 12 and will be part of future improvements.

To reach users, SomPel Tech will primarily use social media platforms such as Facebook, Instagram, and TikTok to raise awareness about sleep and wellbeing. Simple and relatable content, such as tips for better sleep and the effects of screen use, will be shared to attract users. In addition, collaborations with schools, colleges, and workplaces can help introduce the app to a wider audience.

Overall, the strategy is to start small, build trust with users, and gradually grow by improving the product based on user needs and feedback.

Risk Register

1. Low User Adoption

Users may be hesitant to adopt a new application due to lack of awareness or resistance to changing habits. This could limit the growth and effectiveness of SomPel Tech.

Mitigation: Conduct awareness campaigns, provide simple and user-friendly features, and collaborate with schools and workplaces to increase exposure and trust.

2. Privacy Concerns

Users may be reluctant to share personal data such as sleep patterns, screen time, and daily habits due to privacy concerns.

Mitigation: Implement strong data protection measures, anonymize user data, and clearly communicate privacy policies to build trust with users.

3. Limited Resources (Financial & Technical)

As an early-stage startup, SomPel Tech may face constraints in funding, technical expertise, and development capacity, which can delay progress.
Mitigation: Develop the product in phases, prioritize essential features first, and seek funding or partnerships to support development.

4. Strong Competition

Established global applications in the sleep and wellbeing space may dominate the market, making it difficult to compete.

Mitigation: Focus on local relevance, personalized insights, and integration of lifestyle factors specific to Bhutan to differentiate the product.

5. Data Accuracy and User Engagement

The effectiveness of the platform depends on users consistently inputting accurate data. Inconsistent or incomplete data may reduce the quality of insights.
Mitigation: Use reminders, simplify data entry, and design engaging features to encourage consistent user participation and improve data reliability.

Products/Tools developed

Website - saypel44/SomPel-Tech-: Six months internship project updates: Urban-Rural lifestyle differences in Bhutan specifically work, screenuse before bed and sleep patterns impact their sleep quality and day energy level

Challenges Faced

1. Technical Issues During Online Meetings

One of the challenges faced during the internship was dealing with technical issues such as Zoom meeting connectivity problems. At times, meetings did not work properly due to internet or software issues, which affected smooth communication. This required quick troubleshooting and adaptability to ensure participation in discussions and guidance sessions.

2. Coding Errors and Debugging

While working with programming languages such as HTML, CSS, and JavaScript, errors frequently occurred in the code. Identifying and fixing these errors was initially challenging and required careful attention, patience, and logical thinking. Over time, this improved problem-solving ability and coding confidence.

3. Understanding Complex Data Concepts

Concepts such as the Data Spectrum and Three Realms framework were initially difficult to understand due to their abstract nature. It took time, repeated learning, and practical application to fully grasp how data moves from collection to transformation and impact.

4. Time Management

Managing daily tasks such as journaling, coding practice, meetings, and project work required strong time management skills. At the beginning, balancing multiple activities within structured time blocks was challenging, but gradually improved through block-time planning and discipline.

5. Consistency in Daily Work (108-Day Project)

Maintaining consistency throughout the 108-day data project was demanding. Daily journaling, planning, and tracking required continuous effort and discipline. However, this challenge helped build long-term consistency and structured working habits.

6. Translating Theory into Practical Application

Applying theoretical concepts learned during training into a real-world project was initially challenging. Bridging the gap between learning frameworks and building SomPel Tech required experimentation, iteration, and continuous refinement.

7. Communication and Confidence in Discussions

As an introverted individual, participating in discussions and responding to questions during meetings was initially challenging. When asked questions without preparation or clear ideas, there were moments of difficulty in expressing thoughts, which affected confidence. However, with continuous exposure to Zoom meetings and regular interactions, communication skills gradually improved, along with confidence in sharing ideas and responding to feedback.

Skills and Knowledge Gained

During the internship, several technical and soft skills were developed through both theoretical learning and practical application.

One of the key skills gained was

1. Problem-Solving Skills

Developed the ability to identify and resolve practical and technical issues during the internship. For example, when Zoom meetings did not function properly, different troubleshooting steps were used to restore connectivity. Similarly, while coding, errors were identified and corrected through logical debugging, improving analytical thinking and patience in handling technical challenges.

2. Programming Skills (HTML, CSS, JavaScript)

Gained foundational knowledge of front-end web development using HTML, CSS, and JavaScript. These languages were used to build and structure simple web pages, style user interfaces, and add basic interactivity. This helped in understanding how websites are developed and how different components work together.

3. Communication Skills

Improved communication skills through regular interaction with the supervisor via Zoom meetings, where project progress, daily plans, and completed tasks from previous days were shared and discussed. These sessions helped in clearly explaining ideas for the next day and showed gradual improvement in how updates were communicated compared to previous meetings.

Presentation skills improved through regular online meetings, where I learned how to structure updates and present work professionally. As all sessions were conducted via Zoom, I also learned to manage body posture, eye contact, and virtual presentation skills. Guest speaker sessions further helped improve confidence, although these skills are still developing.

4. Team Interaction and Professional Guidance

Learned how to work under continuous guidance from a supervisor and team members and respond to structured feedback. Regular mentoring sessions helped improve discipline, clarity of work, and ability to follow instructions while also asking for clarification when needed.

5. Technical Adaptability

Developed the ability to quickly adapt to new tools, platforms, and technical environments. This included adjusting to online collaboration tools, managing digital workflows, and learning new concepts during project development.

Conclusions

This internship provided a comprehensive learning experience that combined theoretical understanding, practical application, and entrepreneurial development. It significantly enhanced my technical, analytical, and communication skills while also shaping my understanding of how data can be used to solve real-world problems.

One of the key learnings from this experience is that structured data, when properly collected, organized, and analyzed, can generate meaningful insights that lead to practical and impactful solutions. The internship also emphasized the importance of discipline, consistency, and reflective learning, particularly through structured methodologies such as block-time planning and the 108-day data project.

The value of the SomPel Tech project lies in its ability to transform real user data into actionable insights that address a relevant and growing problem—sleep and lifestyle imbalance in Bhutan. It demonstrates how data-driven approaches can be used to design locally relevant digital solutions that improve wellbeing.

Overall, this internship had a strong personal and professional impact. It not only strengthened my technical and analytical capabilities but also helped shape a clear entrepreneurial direction. The experience laid a strong foundation for SomPel Tech as a data-driven initiative with the potential to contribute meaningfully to digital health and wellbeing in Bhutan.

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Appendix

Note: Click link to access documents.

Appendix A: Survey Questionnaire

https://drive.google.com/file/d/1SpLhGcjsqUK8I7Ce7KV7IumZj1HjCeLM/view?usp=sharing

Appendix B: Data

https://docs.google.com/spreadsheets/d/1J2D-m9KAjTvoE9ayLEJPSkzSfXIwGW6O/edit?usp=sharing&ouid=117906368688119609935&rtpof=true&sd=true

Appendix C: Tableau

https://drive.google.com/file/d/1oXIbnLS-RTPfqG2BAa6uuHWtITnyI4W_/view?usp=sharing

Appendix D: Product

BDS-Planio-githup/Phendhey-Tech/Web/Execute at main · saypel44/BDS-Planio-githup

Deploy link: