CREATION OF WELLNESS PRODUCTS FROM HERBAL SOURCES

Dissertation submitted to

ST. TERESA'S COLLEGE, ERNAKULAM

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In partial fulfilment of requirement for the

AWARD OF THE DEGREE OF MASTER OF SCIENCE IN

HOME SCIENCE (BRANCH B)

RESOURCE MANAGEMENT AND INTERIOR DESIGNING

By

ANN CARMEL A. A

Register No. AM23HRM002

DEPARTMENT OF HOMESCIENCE AND CENTRE FOR RESEARCH

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'Certified as Bonafide Research Work'

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Signature of the Examiner **Signature of the Guide**

…… ……

Date **Signature of HOD**

DECLARATION

I hereby declare that the thesis entitled 'Creation of Wellness Product from Herbal Sources' is a bonafied record of research work done by me during my study, under the supervision and guidance of Ms. Teresa Kunchria, Assistant Professor, Department of Home Science, St. Teresa's Collage (Autonomous), Ernakulam.

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CERTIFICATE

This is to certify that the thesis **"Creation of Wellness Product from Herbal Sources"** is an authentic record of the original research work carried out by Ms. Ann Carmel A. A under the guidance of Ms. Teresa Kuncheria, Assistant Professor, Department of Home Science, St. Teresa's Collage (Autonomous),Ernakulam.

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ABSTRACT

The included study "Creation of Wellness Products from Herbal Sources" was completed in three phases - Selection of ecofriendly materials for preparation for the wellness products, preparation of wellness products from vetiver and essential oil, Evaluation of wellness products. For the study raw materials were identified and procured from the local stores and natural sources. Raw materials like vetiver, jute, kora fabric, essential oil are used for the production. The major consideration during the development process of the products were the effectiveness and ecofriendly which are very important. Only ecofriendly materials were used to create the products to reduce the cost of raw materials and production cost. All the selected and designed products were easy and affordable to construct and to produce at large scale. Five different products were designed. An evaluation of five different wellness products was done.

Chapter 1
Introduction

Wellness is a multifaceted and holistic concept that encompasses the physical, mental, emotional, and spiritual aspects of an individual's life, striving to create a state of optimal well-being and vitality. It goes beyond the mere absence of illness or disease, instead focusing on the cultivation of a healthy, balanced, and fulfilling life, where an individual can thrive and reach their full potential. Wellness involves adopting intentional habits and practices that promote resilience, vitality, and overall well-being, such as regular exercise, balanced eating, adequate sleep, stress management, and relaxation techniques. It also encompasses emotional intelligence, self-awareness, and social connections, recognizing that relationships and community play a vital role in our overall well-being. Furthermore, wellness involves cultivating a growth mindset, being open to learning, and embracing challenges as opportunities for growth and development.

By prioritizing wellness, individuals can experience a wide range of benefits, including improved physical health, enhanced mental clarity and focus, increased energy and motivation, and a greater sense of purpose and fulfillment. Wellness is not a static state, but rather a dynamic and ongoing process that requires effort, commitment, and self-care. It is a journey that involves continuous learning, growth, and exploration, and one that can lead to a more vibrant, meaningful, and satisfying life.

Healthy living is essential for maintaining overall well-being, preventing chronic diseases, and improving quality of life. Healthy living habits, such as regular exercise, balanced diet, and not smoking, can reduce the risk of developing chronic diseases like heart disease, diabetes, and certain types of cancer. Additionally, healthy living habits can maintain a healthy weight, improve sleep quality, reduce stress and anxiety levels, improve mental clarity and focus, boost mood, and enhance overall quality of life. Healthy living habits also have social benefits, including improving relationships, increasing productivity, and enhancing overall quality of life. Furthermore, adopting healthy living habits can increase life expectancy, reduce the risk

of age-related diseases, such as Alzheimer's and Parkinson's, and improve cognitive function. It is therefore crucial for maintaining physical, mental, and emotional well-being, improving quality of life, and reducing the risk of chronic diseases, and by adopting healthy living habits, individuals can improve their overall health, increase their life expectancy, and enhance their quality of life.

Wellness products encompass a broad range of items designed to maintain or enhance overall wellbeing. These products include probiotics, vitamins, minerals, herbs, and herbal medicines, among others. Wellness products can positively impact various aspects of life, including physical well-being by boosting immunity or facilitating digestion, mental health by alleviating worry or tension, and emotional well-being by serving as a coping mechanism for mental health issues such as depression. The primary objective of wellness products is to enhance overall health and wellbeing, providing benefits such as reduced stress, improved mental clarity, enhanced physical performance, and better sleep quality. Additionally, wellness products offer numerous advantages for immunity and digestion.

The increasing awareness about health and well-being in recent years has led to a significant shift in how people approach their living spaces. As individuals strive to create environments that enhance their physical, mental, and emotional health, there has been a growing interest in integrating wellness products into interior design. The integration of nature and wellness aspects into design is a concept with deep historical roots. Across various cultures, herbs, plants, and natural elements have been employed for centuries to create spaces that foster healing, relaxation, and equilibrium. These products, derived from nature and herbal sources, offer a holistic approach to improving overall well-being.

In the contemporary, rapidly evolving landscape characterized by increasing demands from work, technology, and environmental challenges, there is a notable inclination towards reestablishing a connection with nature and enhancing personal well-being. The notion of wellness has transcended its traditional association with physical health, now encompassing mental, emotional, and environmental dimensions. This shift has led to a rise in the popularity of wellness products derived from herbal sources, designed for use in indoor environments and as personal accessories. These products utilize natural components, including aromatherapy,

essential oils, and sustainable herbal materials, to cultivate a sense of tranquility, alleviate stress, and improve the overall atmosphere of both living and working spaces.

The contemporary trend towards holistic living has revived these ancient practices, drawing attention to the advantages of incorporating herbal products into daily life. As consumers increasingly seek sustainable and natural substitutes for synthetic materials and chemicals, the demand for herbal-based wellness products continues to rise. The use of herbal ingredients in wellness products for interiors, such as essential oils, aromatherapy are on the rise.

This heightened interest in eco-friendly wellness products, particularly those derived from herbal ingredients, has spurred the creation of a diverse array of items that promote both personal health and ecological sustainability. Products such as natural fiber rugs, pillows filled with herbal mixtures, and biodegradable candles are gaining popularity as individuals acknowledge the significance of coexisting harmoniously with nature.

The development of wellness products for home interiors and accessories derived from herbal sources signifies an increasing inclination towards natural and environmentally friendly lifestyles. This encompasses the utilization of essential oils in aromatherapy, herbal-themed items such as cushions and carpets, as well as eco-conscious candles and diffusers. These offerings serve to improve both physical and emotional health within domestic settings. As individuals increasingly focus on their well-being and ecological sustainability, the market for herbal wellness products is expected to expand, presenting fresh avenues for innovation and sustainable design practices. By adopting these natural alternatives, individuals can cultivate environments that support their mental, physical, and spiritual health, while also fostering a healthier and more sustainable future for subsequent generations.

The incorporation of herbal wellness products into interior design presents numerous advantages. Utilizing natural and eco-friendly materials, these products diminish the presence of harmful chemicals and synthetic fragrances within the home, which can adversely affect both health and the environment. Additionally, the therapeutic attributes of herbs and essential oils can positively influence mental, emotional, and physical well-being.

Herbal offerings, which may include dried flowers, leaves, or essential oils, provide an environmentally responsible means to enhance living spaces without causing ecological harm. These items are typically biodegradable, non-toxic, and devoid of harmful chemicals, presenting a healthier choice compared to mass-produced synthetic alternatives. Furthermore, many herbal wellness products are obtained from renewable plant sources, ensuring their eco-friendliness and sustainability.

Herbal products, particularly those sourced from essential oils, plants, and natural botanicals, have long been esteemed for their therapeutic benefits. Aromatherapy, a facet of holistic healing, harnesses the natural extracts from plants to enhance both physical and emotional health. By thoughtfully selecting and applying essential oils, one can elicit specific emotional or physical reactions that promote relaxation, concentration, or even increased energy. These characteristics render essential oils particularly effective in establishing a wellness-oriented interior environment.

Aromatherapy is a holistic therapy that utilizes essential oils to enhance health and wellbeing. This practice involves the inhalation of essential oils or the topical application of diluted oils on the skin, often through massage techniques. Essential oil diffusers or face steams can also be employed to breathe in the scent. Benefits of aromatherapy include reduced anxiety and improved sleep quality. As a comprehensive therapy, aromatherapy promotes overall wellbeing, addressing the mind, body, and soul.

Aromatherapy activates the neurological system, comprising the brain, spinal cord, and nerves, upon inhalation. This triggers a series of messages to the body's chemical reactions and brain. The moment an essential oil's scent is detected, this activity commences. Essential oils, like any fragrant substance, release tiny molecules into the air. Upon inhalation, these molecules enter the nose. Olfactory receptors, specialized cells within the nasal cavity, detect the chemicals, transmitting signals to the brain via the olfactory nerve. These signals activate the limbic system and hypothalamus, including structures like the amygdala, which regulate emotions and memory. Consequently, the brain releases chemicals such as serotonin,

dopamine, and endorphins. These hormones regulate various bodily processes, including mood, digestion, and sleep. The production of these hormones can have numerous benefits, including reduced anxiety and pain perception.

The Poaceae family, which includes the perennial grass known as vetiver, is indigenous to India. The word "Vetiver" comes from the Tamil word hatched up. Its tall stems and long, thin, stiff leaves can reach a maximum height of 1.5 meters. It has brownish-purple blooms. Despite being native to India, vetiver is now commonly grown in tropical regions of the world. The cooling properties of vetiver root offer numerous health benefits. It may help alleviate ulcers and lower body temperature. Additionally, vetiver root is beneficial for skin health, as it can nourish and prevent acne and pimples. It is also effective in relieving tension, easing emotional trauma, shock, and stress. Furthermore, vetiver root can assist with circulation and nerve disorders, and provide relief from stomach discomfort, including bloating, acidity, constipation, and stomach pain. The root is also used in aromatherapy to alleviate nervousness, sleeplessness, and joint and muscle aches. Vetiver root has the potential to boost immunity and aid in improved digestion, making it a versatile and valuable natural remedy.

A primary motivation for individuals seeking wellness products for their interiors is the enhancement of mental and emotional health. Essential oils, herbs, and other natural items can significantly affect mood, stress levels, and overall emotional stability. For instance, the aroma of lavender is known to alleviate anxiety and foster relaxation, whereas the refreshing scent of peppermint can enhance focus and concentration. By integrating these natural elements into their living spaces, individuals can cultivate environments that promote mental clarity, emotional equilibrium, and relaxation.

Beyond their role in supporting mental and emotional health, herbal wellness products also play a part in physical well-being. Certain essential oils, such as eucalyptus and tea tree oil, possess antiseptic and antimicrobial qualities that can purify the air and enhance respiratory health. Herbal remedies like chamomile, lavender, and peppermint can also relieve physical ailments, including headaches, muscle pain, and insomnia.

Furthermore, a notable advantage of herbal wellness products is their sustainability. By opting for items crafted from renewable and biodegradable materials, consumers can lessen their environmental footprint and contribute to a more sustainable future. Herbal products are typically devoid of harmful chemicals and synthetic substances, making them not only more environmentally friendly but also safer for individuals, particularly those sensitive to artificial fragrances.

Aim of the Study

To develop wellness products from essential oil and herbal sources that help to promote overall wellbeing.

Objectives of the study

- Design functional, attractive and ecofriendly products for wellness
- Create wellness products using herbal sources and essential oils.
- Evaluation of wellness products.

Chapter 2
Review of Literature

2.1 Importance of wellness products
2.2 Benefits of essential oil
2.3 Benefits of aromatherapy
2.4 Benefits of Vetiver
2.5 Importance of eco-friendly products

2.1 importance of wellness products

With the continuous improvement of people's living standards in modern life, people no longer only pay attention to the simple needs of eating and drinking, but begin to pay attention to the improvement of the quality of life, which increases the demand and consumption of healthy products, the environment in which people live is also deteriorating, and in the face of the pressure and pressure brought by life, modern people's health has also appeared various problems (Sanga, 2022).

The Indian wellness industry is still nascent, reflecting the lack of awareness reported by its consumers regarding various wellness segments and their offerings. This confusion in the mind of consumers may stem from 'poor positioning' of services and 'blurred demarcations' of the wellness segments (Sing, 2020).

In the last few years, a growing body of research has been interested in wellness, quality of life, and well-being issues. Furthermore, institutions, governments, and policymakers start to introduce numerous physical and mental well-being programs, whereas scholars interested in well-being research use different indicators to evaluate them (Ciziceno, 2022).

Traditional methods utilising aromatic plants have served as a significant resource for addressing both emotional and physical health issues for centuries. These plants offer a diverse array of potential compounds that can be harnessed for the treatment of various medical conditions, thereby

enhancing the range of pharmacological agents available in conventional medicine. They remain a promising avenue for the discovery of new pharmaceuticals. In contemporary practice, innovative therapeutic strategies have emerged, including the use of nanotechnology for disease diagnosis, treatment, and prevention, the development of drugs that target specific receptors, surface antigens, and signalling pathways, as well as tissue regeneration therapies informed by pluripotent stem cell research. Additionally, digital therapies leveraging artificial intelligence have been integrated into healthcare approaches due to scientific and technological advancements. Nevertheless, traditional practices that incorporate herbal extracts and aromatherapy, particularly essential oils, are increasingly recognized as valuable complementary or alternative therapies within global healthcare systems. These practices are supported by evidence-based research and have become essential tools for promoting both psychological and physiological well-being in patients, effectively enhancing their quality of life while minimising discomfort in a cost-effective manner and with fewer adverse effects compared to standard medical treatments (Rincon,2025).

2.2 benefits of essential oil

Essential oils are aromatic, volatile liquids obtained from plant material through steam distillation and named after the plant from which they are derived. Essential oils can be defined as either products or mixtures of fragrant substances or as mixtures of fragrant and odourless substances. These fragrant substances are chemically pure compounds that are volatile under normal conditions. Essential oils vary greatly, sometimes due to genetic causes, but also because of climate, rainfall, or geographic origin (Rio,2016).

Essential oils are very important and widely used since early times. The important role and mode of action of these naturally occurring products are discussed about their bioactivity as antibacterial, antiviral, antioxidant and diabetic. Also, its important role in chemoprevention and cancer suppression is discussed. The therapeutic properties of essential oils in aroma will be outlined. All these functions and their properties are due to the presence of certain constituents, which are discussed in this review along with their chemical structures (Tanu, 2016).

Since ancient times, essential oils have been recognised for their medicinal value, and they are very interesting and powerful natural plant products. They continue to be of paramount importance until the present day. Essential oils have been used as perfumes, flavours for foods and beverages, or to heal both body and mind for thousands of years (Baris et al., 2006; Margaris et al., 1982; Tisserand, 1997; Wei & Shibamot,o 2010).

Record findings in Mesopotamia, China, India, Persia and ancient Egypt show their uses for many treatments in various forms. For example, in ancient Egypt, the population extracted oils by infusion. Later, Greeks and Romans used distillation and thus gave aromatic plants an additional value. With the advent of Islamic civilisation, extraction techniques have been further refined. In the era of the Renaissance, Europeans took over the task, and with the development of science, the composition and the nature of essential oils have been well established and studied (Burt et al, 2004, 2011; Steven, 2010; Suaib et al., 2007). Nowadays, peppermint, lavender, geranium, eucalyptus, rose, bergamot, sandalwood and chamomile essential oils are the most frequently traded ones (Djilan, 2012).

Essential oils are the volatile compounds that have an oily fragrance. Essential oils are obtained from the different plant parts, and they are extracted the different techniques, and the most preferred method of extraction is the hydrodistillation, which is cheap and easy to use. Plant parts, including the flowers, leaves, stem, bark and roots, are used for the isolation of essential oils. Essential oils are used in almost every field of life, and because of these characteristics, the market for essential oils is growing rapidly. Essential oils are used in aromatherapy and act as antioxidants, antimicrobials, antifungals, pain relievers, anxiety, depression. In the field of cosmetics and industries, the essential oils are used rapidly and are mostly used in the perfume industry, which is growing rapidly. Essential oils are used as food preservatives and many food items. Essential oils are used as folk herbal medicines, and their fragrance is used for the improvement of the mood and as the depression release (Arshad, 2020).

The wellbeing and sustenance of food amid its preparation, transport and storage are requirements for present day food handling. Essential oils (EOs) are important aromatic components of herbs and spices and their biological activities have been known and utilized since ancient times in perfumery, food preservation, flavoring, and medicine. The antimicrobial activities of essential

oils clearly indicates that, they are more acceptable because of their unique antibacterial, antifungal and antiviral properties (Ayega, 2019).

The increasing consumer awareness regarding the use of natural ingredients in textile finishing has led to a rising demand in the market. Advances in textile technology have facilitated the incorporation of innovative ingredients into fabrics, enhancing their functional attributes. Essential oils have emerged as a favored choice, representing a "green" alternative, and are utilized to impart specific functionalities to textiles due to their environmentally friendly and biodegradable characteristics. Certain essential oils, which can be employed to infuse textiles with fragrance, are recognized for their antimicrobial, antifungal, antiviral, antiseptic, and antioxidant properties, making them suitable for various textile applications. Aromatherapy, a branch of alternative medicine, utilizes essential oils to provide therapeutic benefits. The development of textile materials with enhanced functional properties is crucial for fostering a healthy and sustainable lifestyle. Vetiver essential oil, known for its economic and ecological significance, is particularly noteworthy. Its primary influence is on the nervous system, exhibiting both sedative and invigorating effects. Traditionally, vetiver has been employed in aromatherapy for alleviating stress, anxiety, depression, tension, and insomnia. Consequently, vetiver essential oil can be utilized in textile finishing to create functional textiles with beneficial properties (Rukhaya,2023).

Essential oils (EOs) are extracted from flowers, leaves, barks, roots, and fruits of the medicinal plants using hydrodistillation or steam distillation and continuous solvent extraction. EOs are mixtures of chemical constituents which have less molecular weight substances, such as alcohols, polyphenols, terpenoids, carbonyl compounds, and aliphatic compounds which provide smell and possess biological properties. EOs have been used as folk medicine throughout history. Nowadays, EOs are widely used as an alternative medicine in varied industries such as pharmaceutical, agricultural, sanitary, and food industries due to their antibacterial, antifungal, antiviral, antiparasitics, antidiabetic, anticancer (cytotoxic), insect repellent, food industry (flavoring), aromatherapy, antioxidant, perfume, and cosmetic properties. EOs have a great demand and interest as cosmetic and pharmaceutical substances. The isolation, identification, and characterization of major components of EOs have a premier significance. Individual compounds present in EOs mixture such as thymol, camphor, limonene, α-pinene, terpinolene, menthol,

menthone, etc. exhibit wide-ranging biological properties. Commercially, still synthetic chemicals are more widely used as biological activities than the EOs from the plants. However, EOs from natural sources are more effective and safe for human health and the environment compared to the synthetic chemicals (Reddy, 2019).

The bioactivity of essential oils and their flavour and fragrance components have been known since ancient times. Essential oils are a mixture of numerous compounds characterized by an essence of aromatic plants. Currently, approximately 3000 essential oils are known, 300 of which are commercially important, in particular for the pharmaceutical, food, household and cosmetic industries. Essential oils have been known to have various bioactivities including antibacterial, antiviral, anti-inflammatory, antifungal, antimutagenic, anticarcinogenic, and antioxidant as well as other miscellaneous activities. Consequently, studies on the biological activities of essential oils have become increasingly important in the search for natural and safe alternative medicines in recent years (Ban, 2012).

Essential oils are products obtained from plants, by steam distillation, mechanical processes of citrus fruit epicarp, or dry distillation after separation of the aqueous phase by physical processes. They are usually composed of secondary metabolites of aromatic plants with oxygenated structures such as alcohols, ketones, aldehydes, and esters, presenting therapeutic properties such as antibacterial, antifungal and antioxidant activities. Essential oils are used in the pharmaceutical, food, and fragrance industries. The increasing use of plants by the pharmaceutical industry makes the study of essential oils crucial to design new bioactive delivery systems (Silva, 2020).

Essential oils have become an integral part of everyday life. They are used in a great variety of ways: as food flavorings, as feed additives, as flavoring agents by the cigarette industry, and in the compounding of cosmetics and perfumes. Furthermore, they are used in air fresheners and deodorizers as well as in all branches of medicine such as in pharmacy, balneology, massage, and homeopathy. A more specialized area will be in the fields of aromatherapy and aromachology. In recent years, the importance of essential oils as biocides and insect repellents has led to a more detailed study of their antimicrobial potential. Essential oils are also good natural sources of substances with commercial potential as starting materials for chemical synthesis (Schmid, 2020).

Vetiver essential oil (VEO) is composed of over 100 sesquiterpenes and their derivatives. The primary aromatic components of vetiver oil include khusimol, α-vetivone, and β-vetivone, which are often regarded as the distinctive markers of the oil. These compounds are extensively utilized in the production of high-end men's fragrances and in the cosmetic industry, owing to their fixative properties, pleasant scent, and benefits for skin care. Recent research has significantly broadened the scope of applications for vetiver essential oil, leading to its adoption as a natural insecticide,The integration of nature-based therapies into contemporary healthcare practices is essential for enhancing well-being. In an era characterized by technological advancement and rapid lifestyles, the urgency to reconnect with nature and harness its therapeutic benefits is increasingly critical. The fundamental relationship between humans and the natural world, supported by evolutionary history and scientific evidence that demonstrate nature's beneficial effects on mental, emotional, and physical health. Central to this holistic healing approach are various nature-based therapies, including ecotherapy, horticultural therapy, forest bathing, wilderness therapy, and nature meditation. Each of these modalities utilizes natural elements to foster healing and well-being, catering to individual needs while cultivating a deeper connection with the environment. The analysis explores the distinct advantages of each therapy, underscoring their effectiveness in reducing stress, enhancing mood, improving cognitive abilities, and bolstering the immune system. This integrative healthcare model, which prioritizes prevention, personalized treatment, and exploration of root causes, aligns seamlessly with the principles of nature-based therapies. Additionally, the incorporation of herbal medicine into modern healthcare complements this framework by offering natural and gentle healing methods that address the whole person—mind, body, and spirit. The report also emphasizes the importance of the biophilia concept, which highlights the intrinsic human affinity for nature. By embracing the therapeutic potential of nature, individuals not only enhance their own well-being but also cultivate a sense of responsibility towards environmental conservation and sustainability. The deeper connections fostered through nature-based therapies promote a greater respect for the natural world, inspiring a commitment to protect it for future generations. As we look ahead in the field of healing cosmeceutical, and aromatherapeutic agent, attributed to its phytochemical constituents (Jamal,2023).

Vetiver oil is known for its calming and restorative effects on the nervous system, making it effective in the treatment of depression, anxiety, insomnia, and various stress-related conditions. Additionally, it promotes the production of red blood cells, thus proving advantageous for individuals with anemia. The oil serves as an effective warming and analgesic rub, ideal for alleviating muscular pain, sprains, stiffness, rheumatism, and arthritis. VEO exhibits significant antioxidant properties, demonstrating strong free radical scavenging activity. Among the diverse components found in crude VEO, β-vetivenene, β-vetivone, and α-vetivone have been identified as key contributors to its potent antioxidant effects. Furthermore, vetiver roots are commonly utilized as raw materials for crafting curtains, mats, and fans, prized for their sweet, refreshing, and enduring fragrance. As the aging population increasingly seeks non-invasive solutions for anti-aging treatments and various health issues, the potential applications of vetiver oil in diverse formulations are being actively investigated (Roshita,2024).

2.3 benefits of aromatherapy

Aromatherapy is defined as" the art and science of utilizing naturally extracted aromatic essences from plants to balance, harmonize and promote the health of body, mind and spirit". Aromatherapy is the use of essential oils from plants for healing. Essential oils have been used for therapeutic purposes for nearly 6,000 years. The ancient Chinese, Indians, Egyptians, Greeks, and Romans used them in cosmetics, perfumes, and drugs. Essential oils were also commonly used for spiritual, therapeutic, hygienic, and ritualistic purposes. By the 1950s massage therapists, beauticians, nurses, physiotherapists, doctors, and other health care providers began using aromatherapy. Aromatherapy did not become popular in the United States until the 1980s. Today, many lotions, candles, and beauty products are sold as" aromatherapy." Aromatherapy is used in a wide range of settings from health spas to hospitals to treat a variety of conditions. In general, it seems to relieve pain, improve mood, and promote a sense of relaxation. In fact, several essential oils including lavender, rose, orange, bergamot, lemon, sandalwood, and others have been shown to relieve anxiety, stress, and depression (Halligudi, 2013).

Aromatherapy is one of the most ancient healing arts & traces its origin to 4500 BC, when Egyptians used aromatic substances in medicines. The term Aromatherapy was coined by Prof.

GatteFosse, a French cosmetic chemist. Aromatherapy is a holistic healing treatment that uses natural plant extracts from flowers, bark, stems, leaves, roots or other parts of plants to enhance psychological and physical well-being. The inhaled aroma from" essential" oils is widely believed to stimulate brain function. Essential oils can also be absorbed through the skin, where they travel through the bloodstream and can promote whole-body healing. Aromatherapy activates areas in the nose called olfactory receptors, which send messages through the nervous system to the brain. The oils may activate certain areas of the brain, like the limbic system, which plays a role in controlling emotions. They could also have an impact on your hypothalamus, which may respond to the oil by creating a good feeling in the brain. Its use ranges from pain relief, mood enhancement and increased cognitive function to treat asthma, insomnia, fatigue, depression, inflammation, alopecia, cancer, arthritis, erectile dysfunction, menstrual disorders, menopausal syndromes, etc. According to the National Association for Holistic Aromatherapy, the most popular essential oils include fennel, geranium, lavender, lemongrass etc (Halder, 2018).

Many of the techniques of alternative healing that have become popular today trace their origin to ancient systems of knowledge. Their scientific basis and relevance in modern life are only now being recognised and appreciated by medical research. Aromatherapy is a method of treatment that involves using essential oils to promote physical and emotional well-being. It is an ancient discipline that has withstood the test of time. This book captures the essence of aromatherapy and explains how certain oils can be effectively used to treat physical ailments. Aromatherapy is a safe and natural method which restores the balance of the body and promotes good health. An exotic way to heal (Sharma, 2010).

Aromatherapy is one of the most actively growing forms of alternative medicines that use essential oils and aromatic plant compounds combining massage together with counselling and nice odour. Aromatherapy using essential oils can help to relieve stress and anxiety symptoms, which may help improve sleep indirectly. A study found aromatherapy improved both depression and anxiety in a group of postpartum women. Aromatherapy can do more than soothe the mind. Scientific studies show that aromatherapy–inhaling or absorbing aromatic plants extracts also may help soothe the body and relieve pain. Studies have shown that essential oils have an effect on brainwaves and also alter behavior. It is possible that most of the effect of the oils is probably

transmitted through the brain via the olfactory system. Used professionally and safely, aromatherapy can be of great benefit as an adjunct to conventional medicine or used simply as an alternative (Hedaoo, 2019).

People with anxiety disorders can benefit from a variety of treatments and services. Following an accurate diagnosis, possible treatments include psychological treatments and mediation. Complementary and alternative medicine (CAM) plays a significant role in health care systems. Patients with chronic pain conditions, including arthritis, chronic neck and backache, headache, digestive problems and mental health conditions (including insomnia, depression, and anxiety) were high users of CAM therapies. Aromatherapy is a holistic method of treatment, using essential oils. There are several essential oils that can help in reducing anxiety disorders and as a result the embodied events that they may cause (Fradelos, 2015).

Aromatherapy is the use of essential oils derived from herbs, flowers, and other plants for therapeutic purposes. Essential oils can enter the body through the skin or through the olfactory system. Aromatherapy is delivered in a variety of ways, including diffusers, baths, massage, and compresses. Aromatherapy is the use of essential oils derived from herbs, flowers, and other plants for therapeutic purposes. The goal of this overview was to give a summary of systematic reviews that evaluated the efficacy of aromatherapy. This overview aims to summarise and critically assess all systematic evaluations on aromatherapy as a treatment for any health problem (Parihar, 2022).

Essential oils, derived from natural aromatic compounds, possess a wide array of physiological and pharmacological attributes, making them applicable across nearly all medical disciplines, both in therapeutic and preventive contexts. While responses to essential oils may vary slightly between genders, individuals of all ages can derive benefits from aromatherapy. When practitioners are well-informed and adequately trained, and when the essential oils utilized meet established medical quality standards, both aromatherapy and aromatology can provide significant complementary support to numerous patients, extending well beyond the scope of anti-stress massage techniques.(Steflitsch,2008).

Essential oil-based therapy (EOBT), commonly referred to as aromatherapy, is a practice often categorized as pseudoscience, which relies on the application of aromatic substances, particularly essential oils (EOs), to promote enhancements in both physical and mental health. It is proposed as a complementary approach and a form of alternative medicine, serving as a natural means to support the well-being of an individual's body, mind, and spirit. The global market for EOBT was valued at approximately USD 1.6 billion in 2020, with projections indicating a compound annual growth rate of 11.6% from 2021 to 2028**.** The bioactive components found in essential oils have the ability to selectively interact with specific cellular targets, primarily proteins or cell membranes, thereby altering their functional characteristics and directly influencing physiological processes within the human body. The pharmacological effects of EOBT are both substance-specific and dependent on dosage. Aromatherapy can be categorized into several types, including cosmetic, massage, medical, olfactory, and psycho-aromatherapy. Essential oils can be derived from various plant parts, such as seeds, stems, flowers, rinds, fruits, and leaves. There is a substantial body of scientific evidence supporting the efficacy of EOBT in the treatment and management of conditions such as pain and inflammation, psychological disorders, nausea and vomiting, menopausal symptoms, dermatological concerns related to skin and hair, and even symptoms associated with COVID-19. However, it is important to note that essential oils can be toxic and potentially hazardous if not utilized safely under the guidance of trained professionals. Therefore, careful consideration and precautions are essential during their application (Tripathi,2023).

2.4 Benefits of Vetiver

Vetiver, a native of India is known for its perfumery and medicinal value since ancient times, much before the world became familiar with rose scents. The annual world trade in vetiver oil is estimated to be around 250 tons, with Haiti, Indonesia (Java), China, India, Brazil, Japan being the main producers, and USA, Europe, India, and Japan being the main consumers. It is a gift of India to the modern world, and finds its greatest use in modern perfume creations. The essential oil distilled from the roots of vetiver, is one of the most complex mixtures of sesquiterpene alcohols and hydrocarbons, and also one of the most viscous oils with an extremely slow rate of volatility. Slow evaporation rate of vetiver oil coupled with its pleasant aroma makes it a perfume by itself.

Its high solubility in alcohol that improves its miscibility with other perfumery material, makes it unique perfume resource, for which no synthetic substitute is yet available. The essential oil produced in different countries possesses distinct odor note–Reunion (Bourbon) and Haitian oil with roseate note is highly regarded in perfumery industry, but the vetiver (khus) oil obtained from wild 'Khus' roots in India is considered to be the best for its balsamic woody note

Vetiver, commonly known as Usira or Khus, balances the elements of Pitta and Kapha in Ayurvedic treatment. This plant can treat stress, headaches, skin conditions, gastrointestinal issues, calm mood, and fever as a cooler. It also helps cleanse blood, moisturize the body, and wash away harmful chemicals. The present study aims to evaluate the screening of vetiver. Vetiver is a fragrant, evergreen tussock grass highly valued for its aromatic essential oil and medicinal properties. Khusimol, vetiverols, isopropenyl, and several other flavonoids, phenols, and phytochemicals are the primary ingredients of this plant. These compounds possess potent antibacterial, anti-inflammatory, antioxidant, tonic, and skin-rejuvenating qualities. For generations, traditional medicine has utilized the ancient plant vetiver as a means of healing and cleansing (dhamane,2004).

Since ancient times, vetiver grass and its roots are well known for their fragrance, medicinal and soil erosion control properties. Native to India, vetiver is a perennial grass that grows up to 2 meters in height and the roots grow up to 3 meters deep. They can grow in harsh conditions with limited water availability or in drought conditions. The roots hold plenty of soils, which encourages using this grass as a soil conservation tool in erosion prone areas. The aromatic oil present in the roots of vetiver is used in perfumery and holds a very high commercial value. On the other hand, several research studies over the past years prove that vetiver grass could be used in other applications such as bioremediation of toxic wastes, farm hedges, termite control, household handicrafts, composites and herbal medicine (Gnansounou,2017).

The rise in precipitation attributed to climate change has led to an increase in landslide incidents. Vetiver, a perennial grass, is gaining global recognition as a vegetation-based soil bioengineering solution for landslide prevention. Commonly referred to as Sunshine Vetiver grass (Chrysopogon zizanioides), it is noninvasive and does not compete with native flora in its environment. Despite

being a tropical species, Vetiver is capable of thriving in a diverse array of climatic conditions, including those that are particularly challenging in terms of soil and climate. Under optimal circumstances, its roots can extend up to 3 meters in a dense, bushy network. This review examines the role of Vetiver in landslide mitigation as a climate-adaptive slope stabilization method, drawing on existing research. Additionally, the authors discuss the future prospects and limitations of utilizing Vetiver for this purpose. Evidence suggests that Vetiver effectively reduces pore water pressure, while its robust root system enhances slope stability and increases soil shear strength. The grass also improves saturated hydraulic conductivity and diminishes surface runoff and slip surface depth. As a vegetation-based, climate-adaptive technology, Vetiver shows significant potential in addressing landslide challenges. However, its effectiveness tends to decrease with depth, making it particularly suitable for mitigating shallow landslides. Moreover, Vetiver grass offers a variety of practical applications due to its distinctive properties, providing further advantages. Its use is economically viable compared to conventional engineering approaches and necessitates minimal initial maintenance, suggesting that community-driven initiatives can successfully tackle landslide issues (khan 2024).

Vetiver grass (Vetiveria zizanioides) is widely recognized in India, where it is referred to as khus. It serves various purposes, including its use in cooling applications, medicinal oils, and the production of numerous pharmaceuticals, fragrances, and food preservatives, as well as in refrigeration processes for various liquids. The grass is characterized by its earthy flavor and possesses a cooling effect similar to that of mint or peppermint. Vetiver grass is a tall, perennial plant with a straight stem, narrow leaves, and a fibrous root system, which is found in abundance. It offers numerous benefits as an affordable, efficient, and environmentally friendly means of preventing soil erosion and conserving moisture. Classified within the groups of medicinal and aromatic plants, its components contain active chemical constituents that are beneficial for treating various ailments while also imparting pleasant flavors. The harvested vetiver leaves, culms, and roots can be processed for use in agricultural practices (such as mulch, compost, nursery blocks, animal feed, mushroom cultivation, botanical pesticides, and allelopathy), handicrafts, medicinal applications, fragrances, and construction materials (including thatch for roofs, mud bricks, vetiver-clay composite storage bins, veneer or fiberboard, artificial pozzolans, ash for concrete, and straw bales). Additionally, vetiver is utilized in containers (such as pottery and melamine

utensils), bouquets, energy sources (like ethanol and green fuel), industrial products (including pulp and paper, and panels), among many other applications. This review paper provides a concise overview of Vetiver Grass Technology (VGT), which encompasses a comprehensive array of technological solutions aimed at promoting sustainable development within the country (Kumar 2016).

Vetiver essential oil (VEO) has been used centuries ago for religious and medical purposes. Vetiver plants are cultivated in tropical and subtropical countries. VEO contains sesquiterpene compounds. VEO can be applied to treat neurological, psychiatric, dermatological, and musculoskeletal disorders. VEO has low toxicity and no carcinogenic effect. VEO has some pharmacological mechanisms in medical treatments. The possible mechanisms are gamma aminobutyric acid (GABA) potentiation, antioxidant, anti-inflammation, anti-stress, tissue regeneration, anti-microbe, and cytotoxicity against cancer. VEO can be applied as topical and oral treatment (Suyono, 2020).

2.5 Importance of Eco Friendly Products

Environmental concern has been an important topic for more than 40 years and has recently become even more critical with today's concerns about creating a sustainable and healthy environment (AKoyne,2011).

In recent years, there has been a significant increase in global awareness regarding environmental issues. Many nations have enacted legislation aimed at environmental protection and the promotion of sustainable economic practices. In addition to governmental regulations, the growing public consciousness about environmental concerns and the rising demand for eco-friendly products have spurred the growth of the ecological product sector. Consequently, a wide range of organizations, spanning from service providers to manufacturing firms, have been formulating and implementing green marketing strategies to align with consumer preferences and to stay abreast of current trends (Heliyon,2023).

The increasing demand for eco-friendly products has led to a proliferation of supposedly environmentally responsible goods, including organic clothing, energy-saving light bulbs, and reusable shopping bags. Many products, ranging from food items to cleaning supplies, boast "all-natural" claims. The term "greenwashing" was coined by New York biologist and environmentalist Jay Westerveld in a 1986 essay to describe organizations that prioritize advertising their environmental credentials over implementing genuine eco-friendly practices. The primary objective of greenwashing is to create a perception among consumers that an organization is taking necessary steps to manage its ecological footprint responsibly. In the future, adopting a green approach will necessitate considering the entire life cycle of a product during the design phase. By integrating eco-design principles into their products and services, companies can gain a significant competitive advantage (orange, 2010).

The green marketing incorporates a broad range of activities such as the product modification, changes to the production process, packaging changes, as well as modifying advertising of the environment-friendly commodities. The green marketing of products of the company are presumed to be environmentally safe. Sustainable forest management is the ways and processes of managing forest resources to meet society‟ s various needs, today and tomorrow, without compromising the ecological capacity and the renewal potential of the forest resource base. Both the producers and the customers must be conscious about the products whether these are really following eco-labeling schemes. This book analyses whether the manufacturers are conscious about green products and eco-labeling, and also the difficulties in implementing green marketing. The green economy is not only to produce clean energy but also technologies of cleaner production processes which reduce environmental impact or improve natural resource use (Mahajan,2012).

Increasing awareness of the various environmental problems has led to a shift in the way consumers go about their lives. There has been a change in consumer attitudes towards a green lifestyle. People are actively trying to reduce their impact on the environment. However, this is not widespread and is still evolving. Organizations and businesses however have seen this change in consumer attitudes and are trying to gain an edge in the competitive market by exploiting the potential in the green market industry. The current study introduces the concept of green marketing

and looks into the various ways in which the different consumer attributes are related to the concept of green marketing (Cherian , 2012).

The word green marketing refers to environmentally friendly or eco-friendly products that are no harm to our earth. This paper is explaining consumer attitude towards green marketing, and their buying behavior about green products in the Thiruvallur District. To study the awareness of consumers, willingness of the consumers to pay more for green products, and analyze the relationship between gender, education, and income with an awareness of green products (Kalaselvi,2021).

Sustainable consumption has emerged as a vital consideration for both consumers and manufacturing companies. The integration of green marketing strategies, which focus on minimizing environmental impact, has been adopted in numerous business models to address traditional patterns of waste and pollution (Munoz,2011).

Numerous environmental issues impact the global community. A significant number of nations are increasingly focused on the importance of environmental conservation. The industrial sector plays a crucial role in this endeavor by developing eco-friendly products that contribute to environmental sustainability (Alodini,2008).

The role of environmental awareness in shaping consumer behavior towards the acquisition of eco-friendly products was examined, alongside an exploration of contextual elements that may contribute to reluctance in purchasing such items. Our research also analyzed the moderating influences of these factors in relation to the perceived convenience of purchase and the credibility of eco-labels (Lee,2023).

The primary motivation for transitioning to eco-friendly products lies in their potential to mitigate the detrimental effects of harmful gases, non-biodegradable plastics, and toxic emissions, which not only pollute the environment but also contribute to respiratory issues in humans. The adverse impacts of plastics, chemicals, and non-biodegradable materials underscore the urgency of adopting eco-friendly alternatives. Understanding the significance of eco-friendliness is crucial;

individuals can contribute to environmental preservation by choosing these products and favouring organic chemicals over harsh substances. In summary, embracing eco-friendly practices has become essential, and it is imperative for everyone to engage in this endeavour (Xavior,2014).

Chapter 3

Methodology

Methodology is the organized framework or collection of techniques employed to gather, analyze, and interpret data with the aim of addressing a research question or resolving a specific issue. It includes the comprehensive strategy or blueprint for executing the research, which involves the choice of methods, instruments, and processes for collecting and analyzing information. Research constitutes a methodical inquiry into a specific topic, problem, or question aimed at uncovering new insights, confirming established knowledge, or addressing a particular challenge. This process encompasses the collection of data, its subsequent analysis, and the formulation of conclusions grounded in empirical evidence. Research is applicable across adverse array of disciplines, including the sciences, social sciences, humanities, medicine, and technology. The purpose of research is to acquire knowledge, address challenges, and provide answers to inquiries that enhance our comprehension of a particular subject or issue. The main objectives of research may differ based on the area of study. Research methodology encompasses the comprehensive strategy or framework employed in the execution of a research study. This includes the particular methods, techniques, and procedures utilized for the collection, analysis, and interpretation of data aimed at addressing research inquiries or resolving issues. In essence, it serves as a blueprint that delineates the manner in which the research will be conducted, thereby ensuring that the study maintains rigor, validity, and reliability.

The methodology adopted for the study entitled is discussed under the following heads.

3.1 Selection of ecofriendly materials for preparation of the wellness products

3.2 Preparation of wellness products from vetiver and essential oil

3.3 Evaluation of the wellness products

3.1 Selection of ecofriendly materials for preparation of the wellness products

The investigator did research on the prevalent ecofriendly materials and herbal sources which had therapeutic properties and aromatic qualities. The herbal sources suitable for this study were shortlisted as vetiver and essential oils. The benefits of each essential oil was studied, and a few like orange, lemon grass and bergamot were selected. The selected materials are vetiver, essential oils, jute, kora cloth, etc. All these materials were eco-friendly and locally available. The materials were selected with the suitability to the product in mind. All materials were sourced from Ernakulam, Broadway.

3.2 Preparation of wellness products from Vetiver and essential oils

After research on various types of wellness products available in the market, and from secondary data, the investigator decoded to create five products that would be appreciated for its utility and aesthetics. These were prepared by using different types of locally available ecofriendly materials. The products were created and named as follows

P1 – Baby Cap
P2 _ Eye Mask
P3_ Shoe Sole
P4 _ Hanger Wrap
P5 _ Neck Pillow

The methods of preparation and materials required are given below.

3.2.1 Product P1- Baby Cap

Materials required:

- Kora fabric
- Essential oil – Orange*
- Vetiver**

● Jute for covering

● Lace

*** Orange essential oil is useful for its calming properties, it also aids in suppressing nausea and helps with digestive issues. **Vetiver has also got a calming effect and improves sleep.**

Procedure:

Kora fabric of size 13 x 13 cm was taken for the construction of the baby cap. The first step was to fold the fabric into the square shape. Measurement of seven was marked within the cloth. The fabric was cut along the measurement. Two identical pieces of fabric were taken. Two fabric pieces were placed right sides facing together and sewn around the edges. Measurements of 13 cm was taken along the border, excess cloth was cutout. Step for construction for head band- Two pieces of cloth of measurements length 13 cm and width 4 cm was taken. Similarly two pieces of jute were taken. The ecofriendly product – vetiver (60 gms) was placed in between the 2 pieces of jute and stitched along the border after adding 3 drops of orange essential oil. This jute pouch was placed in between the cloth and stitched around the border. The lace is joined to the head band then head the band was attached to the cap. Small cloth strips were attached to the two sides of the cap for tying purposes.

Plate no 1

Product P1 - Baby Cap

3.2.2. Product P1 - Eye mask

Materials required :

- Kora cloth
- Essential oil- Lemongrass*
- Vetiver**
- Jute
- Lace

* **Lemon grass is a stress relieving agent, mood booster and also helps with digestive issues, reduce inflammation also. **Vetiver has also got a pleasant aroma, calming effect and improves sleep.**

Procedure:

Draw a basic eye mask shape on paper, Size - about 8–9 inches wide, 3–4 inches long.

Cut out the same pieces of jute also. Place vetiver in between the jute, add 3 drops of lemongrass essential oil. Pin the pattern to the fabric. Cut 2 pieces of outer fabric using the pattern and cut 2 layers of jute, then stitch the jute around the border after adding vetiver (30 gms) and essential oil. Place the stitched jute pouch in between the cloth that early taken and stitch the border. Cut a piece of strip to fit around the head (usually 12–14 inches).Attach the ends of the strips to the sides of the fabric piece. Attach lace around the eye mask for improving aesthetic appearance.

Plate No.2.

Product P2 - Eye Mask

3.2.3 Product P3 - Shoe sole

Materials required:

- Kora fabric
- Jute
- Essential oil- Orange*
- Vetiver**
- Lace

***Orange oil is an excellent air purifier, insect repellent and has antimicrobial properties. It is also used for pain relief. **Vetiver is noted for its aroma and for its antimicrobial properties.**

Procedure:

Take 2 pieces of kora fabric. Place foot on a brown paper. Mark around the edges. Decrease 3/4 inch all around and cut out so that the sole will remain inside the shoe, and cut out. Draw the pattern on cloth and cut it. Take 2 pieces of jute and cut the jute also with the foot pattern. Add ½ inch all around for seam allowance. Place Vetiver (30gms) in between the jute, add 3 drops of essential oil and stitch the border. Then place this in between the kora fabric and stitch around the border. Attach lace around the shoe sole to make a single pair.

Plate no. 3

Product P3 - Shoe sole

3.2.4 Product p4 - Hanger wrap

Materials required:

- Hanger
- Kora fabric
- Essential oil- Orange*
- Vetiver**
- Jute fabric

***Orange oil has a very aromatic odour, refreshing property, is used as an insect repellent and can purify air.**Vetiver is noted for its aromatic odour and antimicrobial properties.**

Procedure:

Cut 2 long rectangular pieces of kora fabric and jute with measurement with 15 cm length and 4.5 cm width. Place vetiver (30gms) in between the jute and stitch around the border. Add 3drops of essential oil. Place the vetiver pouch in between the cloth and stitch the border. Attach 4 strips of cloth to the corner of the hanger wrap for tying purpose. Drape the scented vetiver hanger wrap around the hanger main bar and secure with the tie.

Plate no. 4

Product P4 - Hanger Wrap

3.2.5 Product P5 - Neck pillow

Materials required:

- Kora fabric
- Essential oil - Bergamot*
- Vetiver**
- Jute
- Lace

***Bergamot essential oil reduces stress and anxiety, is a mood booster, promotes relaxation.**Vetiver is noted for its aroma and antimicrobial properties.**

Procedure:

Cut a neck pillow pattern on 2 pieces of cloth and 2 pieces of jute. Place the vetiver in between the jute and stitch around the border add 5 drops of bergamot essential oil. Place this vetiver pouch in between the cloth and stitch around the border. Attach lace around.

Plate no. 5

Product P5 - Neck Pillow

3.3 Evaluation of the wellness products

Evaluation of the prepared wellness products is done by 20 judges. Since the study was related to the use of ecofriendly contents, the aspects of evaluation included functional aspects, comfort/ease of use, quality of therapeutic aroma, aesthetic appearance and the overall acceptability of the products. The scores were given from 1- 5.Average scores were taken and results presented in the Chapter Results and Discussion.

Chapter 4

Results and Discussion

The result obtained from the present study 'Creation of Wellness Products from Herbal Sources' is discussed under following subheadings

4.1 - Evaluation of Wellness Products

4.2 - Evaluation of Product Design

4.3 - Ease of maintenance of Products

4.4 - Environmental impact of Products

4.5 - Prospect of Products for Entrepreneurial Ventures

4.1 - Evaluation of Wellness Products

The evaluation of the wellness products created from eco-friendly and herbal products was done by 20 judges. The aspects of evaluation included functional aspects, comfort/ease of use, quality of therapeutic aroma, aesthetic appearance and the overall acceptability of the products.

Table 1

Evaluation of Wellness Products

Products	Functionality (5)	Comfort/Ease of use (5)	Aroma quality (5)	Aesthetic appearance (5)	Acceptability of product(5)
Baby Cap(P1)	5	5	5	5	5
Eye Mask(P2)	5	4.85	4.85	4.85	4.7
Shoe Sole(P3)	4.95	4.95	4.85	4.7	4.85
Hanger Wrap(P4)	4.9	4.9	4.85	4.8	4.85

Neck Pillow(P5)	4.85	4.7	4.85	4.7	4.85

From the above table it could be seen that the Baby Cap (P1) achieved a perfect score (5/5) in all individual categories - functionality, comfort, quality and aesthetic appearance - and achieved a maximum acceptability point of 5/5 .The Eye Mask (P2) was rated as having excellent functionality with a score of 5.The aroma quality and aesthetic appearance was slightly lower at 4.85, and also showed an acceptability score of 4.7. For the Shoe Sole (P3), the functionality had an average score of 4.95, comfort at 4.95 and the aroma quality at 4.85. However, the aesthetic appearance was slightly lower at 4.7. The acceptability had an average score of 4.85. The Hangar Wrap (P4) also had a high score of above 4.8 in all categories, and also an acceptability score of 4.85.The Neck Pillow (P5) scored a little less in comfort (4.7), while other parameters remained high (4.8 and above), and maintained an acceptability score of 4.85.

Thus it is seen that the Products P1 and P2 scored highest in terms of functionality, P1 and P3 in terms of ease of use, P1 for aroma quality, aesthetic appearance and acceptability.

4.2 Evaluation of Product Design

The table below presents the evaluation of Product Design. Whether the product developed offers something new, better or more efficient, whether the product is easy and adaptable for use, whether the materials used impacts people negatively are studied and discussed below.

Table 2

Evaluation of Product Design

Product	Innovat-ive (5)	Simple& adaptable (5)	Useful (5)	Non allergic (5)	No harmful contents (5)	Skin friendly materials (5)	Good Craftsman-ship(5)
Baby Cap (P1)	4.9	4.9	5	4.95	5	5	4.9
Eye Mask (P2)	4.9	4.85	4.85	4.9	5	4.9	4.8
Shoe Sole (P3)	4.9	4.95	4.85	4.8	4.85	4.8	4.85
Hanger Wrap (P4)	4.95	4.9	4.85	4.8	5	4.9	4.9
Neck Pillow(5)	4.7	4.8	4.7	4.9	4.75	4.65	4.7

The product- Baby Cap (P1) had high scores in all categories, with an average score of 5 for being innovative, simple and adaptable. It also scored maximum with regard to usefulness,the absence of harmful materials, use of skin-friendly materials and scored 4.95 for being non-allergic. Product secured 4.9 for craftsmanship

The product - Eye mask (P2) had high score in all categories, the score of Eye Mask is 4.9 for innovativeness, for being, simple & adaptable and useful the product score is 4.85. With regard to

being non-allergic and use skin-friendly material, it scored 4.9, it is also scored maximum 5 for use of non-harmful contents and the product secured 4.8 for craftsmanship.

The product - Shoe Sole (P3) had high score in all categories, with an average score of 4.8 for being useful, being non allergic and the use of non harmful contents and skin friendly, product secured 4.85 for craftsmanship.

The product - Hanger wrap (P4) had high score 5 for use of non - harmful contents, with the average score of 4.85 for being useful. It scored 4.9 and more for being innovative, skin friendly, simple & adaptable. Product secured 4.9 for craftsmanship.

The product Neck pad (P5) had high score 4.9 for being non allergic, with an average score of 4.7 for being innovative, useful, use of non harmful contents. Product secured 4.7 for craftsmanship.

In summary, all five products scored well for product design. Baby Cap (P1) received the highest or nearly highest scores over the entire board, while the neck pillow scored the lowest .

4.3. Ease of maintenance of product

The ease of maintenance was adjudged to be high for all products, since the outer layer of fabric could not be removed for washing. It was pointed out that this problem could be rectified if covers of all items/products could be fixed with zippers.

4.4. Environmental impact of product

Table 4

Environmental Impact of Product

Product	Uses of organic content (5)	Can degrade effectively(5)	Non polluting(5)	Eco friendly Process of production(5)
Baby Cap(P1)	4.9	4.8	5	5
Eye Mask(P2)	4.9	4.9	4.9	4.95
Shoe Sole(P3)	4.95	4.9	4.8	4.9
Hanger Wrap(P4)	4.9	4.85	4.8	4.9
Neck Pillow(P5)	4.8	4.6	4.7	4.8

From the above table it can be seen that:

The product Baby Cap (P1) had high score in all categories. It has scored maximum 5 in being non polluting and for using ecofriendly process of production. For the use of organic content, it scored 4.9 and for the degradable effect of product, it got an average score of 4.8.

The product Eye mask (P2) had high scores in all categories. The product scored maximum in use of organic content, ability to degrade effectively, and for being nonpolluting. Product secured 4.95 in the ecofriendly process of production.

The product Shoe Sole (P3) had high score of 4.9 in the use of organic content and ecofriendly production process of product. For the degradable effect of product, it scored 4.85 and the

score for being non polluting was 4.8.The product Hanger wrap (P4) had high score of 4.9 in having an ecofriendly process of production and its use of organic content. The score for being non polluting and degradable is 4.8.

The product Neck Pillow (P5) had a high score of 4.8 for its use of organic content and the ecofriendly production process. The score obtained for aspects of degradable nature is 4.6 and for being nonpolluting is 4.7.

4.5. Prospect for Entrepreneurial Ventures

The products created with herbal sources for enhancing wellness could be taken up as an entrepreunerial venture. Products need to have the ability to be created to suit different sizes, it needs to be cost effective also. Also, the life span of the products could also be extended by creating diverse options. The perception of respondents as to whether the products developed could be taken up for entrepreneurial ventures in future is given in Table 5.

Table 5

Prospect for Entrepreneurial Ventures

Product	Product is scalable(5)	Product is innovative(5)	Product life span can be extended *(5)	Product can be cost effective**(5)
Baby Cap(P1)	4.75	4.9	4.7	4.5
Eye Mask(P2)	4.7	4.6	4.75	4.75
Shoe Sole(P3)	4.9	4.6	4.75	4.65
Hanger Wrap(P4)	4.6	4.8	4.65	4.65

Neck Pillow(P5)	4.4	4.6	4.5	4.45

*With the use of removable covers/provision of supplementary sachets/oils

**Cost per item ranges from Rs 100 -120/-

The above table shows that the product Baby Cap (P1) has maximum score of 4.9 in being an innovative product. The scores for scalability was 4.75 and for the ability to extend the life span of the product scored an average of 4.7.The cost effectiveness of the product is 4.5.

The product Eye Mask (P2) had a maximum score with regard to ways of increasing the life span of the product, cost effectiveness of the product was 4.75 and the score for scalability of the product with a score of 4.7. For innovative idea, the product had a score of 4.6.

The product Shoe Sole (P3) had the maximum score for its scalability with an average score of 4.9, for innovative idea, the product scored 4.6, the scores regarding life span of the product is 4.75 and for being cost effective, the average score was 4.65.

The product Hanger Wrap (P4) had a maximum score of 4.8 for its innovative idea, with regard to the ability to extend the life span and consideration of cost effectiveness, the average score was 4.65, and score for scalability was 4.6.

The product Neck pillow (P5) scored 4.6 for its innovative idea, the scores for scalability was 4.4, for the ability to extend the life span was 4.5 and consideration of cost effectiveness, the scores were 4.45.

Chapter 5

Summary and Conclusion

The study entitled 'Creation of Wellness Product from Herbal Sources' was aimed to develop wellness products from essential oil and herbal sources that help to promote overall wellbeing. The objectives of the study were to design, create and evaluate functional, attractive and ecofriendly products for wellness. The method used for the study was product development from vetiver and essential oils. Five varieties of vetiver wellness products were developed. The results from the study is summarized below.

- Ingredients that promote overall wellbeing are identified through articles, books, and online sources. Eco friendly ingredients were identified and collected from various sources. Based on the research done vetiver was used as the foundation for making wellness products. These ecofriendly ingredients were collected from local market at affordable rate.
- The products were developed in a way that was cost effective and ecofriendly in the process of production also.They were developed in a way that is suitable for the kids and adults.
- The Products developed were baby cap, eye mask, shoe sole, hanger wrap, neck pillow.
- Using a five point scoring, the evaluation of the wellness products created from eco-friendly and herbal products was done by 20 judges. The aspects of evaluation included functional aspects, comfort/ease of use, quality of therapeutic aroma, aesthetic appearance and the overall acceptability of the products.
- It could be seen that the Baby Cap (P1) achieved a perfect score (5/5) in all individual categories - functionality, comfort, quality and aesthetic appearance - and achieved a maximum acceptability point of 5/5.
- Products P1 baby cap and P2 eye mask scored highest in terms of functionality, P1 baby cap and P3 shoe sole in terms of ease of use, P1 baby cap for aroma quality, aesthetic appearance and acceptability.
- All five products scored well for product design. Baby Cap (P1) received the highest or nearly highest scores for 4.9 while the neck pillow scored the lowest for 4.7

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- The ease of maintenance was adjudged to be high for all products, since the outer layer of fabric could not be removed for washing. It was pointed out that this problem could be rectified if covers of all items/products could be fixed with zippers.
- The product Baby Cap (P1) had high score in all categories. It has scored maximum 5 in being non polluting and for using ecofriendly process of production. For the use of organic content, it scored 4.9 and for the degradable effect of product, it got an average score of 4.8.
- The product Eye mask (P2) had high scores in all categories. The product scored maximum in use of organic content, ability to degrade effectively, and for being nonpolluting. Product secured 4.95 in the ecofriendly process of production.
- The product Shoe Sole (P3) had high score of 4.9 in the use of organic content and ecofriendly production process of product. For the degradable effect of product, it scored 4.85 and the score for being non polluting was 4.8.The product Hanger wrap (P4) had high score of 4.9 in having an ecofriendly process of production and its use of organic content. The score for being non polluting and degradable is 4.8.
- The product Neck Pillow (P5) had a high score of 4.8 for its use of organic content and the ecofriendly production process. The score obtained for aspects of degradable nature is 4.6 and for being nonpolluting is 4.7.
- The products created with herbal sources for enhancing wellness could be taken up as an entrepreunerial venture. Products need to have the ability to be created to suit different sizes, it needs to be cost effective also. Also, the life span of the products could also be extended by creating diverse options(With the use of removable covers/provision of supplementary sachets/oils).Cost per item for all products range from Rs 100 -120/-.
- Baby Cap (P1) has maximum score of 4.9 in being an innovative product. The scores for scalability was 4.75 and for the ability to extend the life span of the product scored an average of 4.7.The cost effectiveness of the product is 4.5.

Conclusion

Usage of wellness products from herbal sources are a good option to promote and enhance overall wellbeing. The study effectively demonstrates that wellness products developed

from herbal sources, particularly using vetiver and essential oils, have significant potential to promote overall well-being. The use of natural, eco-friendly materials such as jute, kora fabric, and essential oils not only ensures environmental sustainability but also supports cost-effective production methods. The products developed were found to be functional, aesthetically pleasing, and suitable for both children and adults.Furthermore, the affordability and low investment required suggest strong potential for these wellness products to be developed into a viable small-scale business. Overall, the study concludes that creating wellness products from herbal and natural sources is both beneficial for human health and supportive of sustainable environmental practices.

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1. **Evaluation of wellness product**

Products	Functionality (5)	Comfort/Ease of use (5)	Aroma quality (5)	Aesthetic appearance (5)	Acceptability of product(5)
Baby Cap(P1)					
Eye Mask(P2)					
Shoe Sole(P3)					
Hanger Wrap(P4)					
Neck Pillow(P5)					

2. **Evaluation of Product Design**

Product	Innovat-ive (5)	Simple& adaptable (5)	Useful (5)	Non allergic (5)	No harmful contents (5)	Skin friendly materials (5)	Good Craftsman-ship(5)
Baby Cap (P1)							
Eye Mask (P2)							
Shoe Sole (P3)							

Hanger Wrap (P4)							
Neck Pillow(5)							

3. Evaluation of Product Design

Product	Uses of organic content (5)	Can degrade effectively(5)	Non polluting(5)	Eco friendly Process of production(5)
Baby Cap(P1)				
Eye Mask(P2)				
Shoe Sole(P3)				
Hanger Wrap(P4)				
Neck Pillow(P5)				

4. Prospect for Entrepreneurial Ventures

Product	Product is scalable(5)	Product is innovative(5)	Product life span can be extended *(5)	Product can be cost effective**(5)
Baby Cap(P1)				
Eye Mask(P2)				
Shoe Sole(P3)				
Hanger Wrap(P4)				
Neck Pillow(P5)				