Chapter - 1

INTRODUCTION

1.1 Statement of the Problem
1.2 Research Gap
1.3 Significance of the Study
1.4 Objectives of the Study
1.5 Hypotheses
1.6 Scope of the Study
1.7 Operational Definitions and Concepts
1.8 Methodology
1.9 Limitations of the Study
1.10 Chapter Scheme
INTRODUCTION

“सर्वेभर्वन्तुसुखिन, सर्वेसन्तुनिरामयः”.

“All should remain happy, all should remain healthy.”

(Mantra :Brihadaaranyaka Upanishad 1.4.14)

Veda means ‘knowledge’ and Ayurveda means ‘veda of life’ or “the complete knowledge for long life”. According to this Indian system of health care, health is the complete state of wellbeing, not the absence of disease. The long tradition of saints and hermits who created this system of healthcare believes in a harmonious relationship with nature.

Samadosha, samagni, samadhatumalakriyah
Prasannaatmaindriyamanahswasthitabhidheyate.

– Sushrutastru 24/41

“Health is in balance, when all three doshas (bio-energy), and Agni (metabolic process) are in balance, and excretions are in proper order. When atman (soul), indriyas (senses) and manah (mind) are in harmony with internal peace, then svastha (optimal health) is achieved.”

Ayurveda is one of the unique systems of health care that has been practiced and based on codified traditional knowledge over 5000 years. As an experiential science, Ayurveda is considered as one of ‘the most documented and commonly practiced disciplines of alternative medicines’ in the world (Gogtay, Bhatt, Dalvi & Kshirsagar, 2002). This vast as well as elegant knowledge has stood the test of time and still continues to be relevant even in this current age. The classical texts of Ayurveda are written in Sanskrit. It emphasizes on treating a person as a whole rather than treating his symptoms or syndrome alone. Hence, it is focused on the rectification of the imbalances formed or occurred in the body and eradication of the cause. The ultimate aim of Ayurveda is to generate a state of perfect health for the individual. The knowledge of Ayurveda was passed on orally through a lineage of rishis or sages in India, until it was documented in the second millennium BC in Vedas (Vagbhata –"AshtangaHridaya Sutra Sthana"). The Atreya Samhita is perhaps the oldest medical book in the world; it survives from
Taksashila University, going back to the mid-I Millennium BC. (Agrawal & Tiwari, 2017). Ayurveda’s peculiar nature of transmitting knowledge orally from generation to generation helped it to a certain extent, to preserve this knowledge in its original form, but at the same time gradually, with the passage of time, the knowledge declined in practice, due to its transformation from its full magnificence to being an alternative health care system. In order to preserve the traditional Ayurveda knowledge in its full glory and to remain competitive in future, effective knowledge management is very essential. Managing Ayurveda Knowledge Assets involves identification, examination and acceptance of available Ayurveda knowledge and preventing these traditional knowledge assets from deterioration. All the knowledge assets related with the Ayurveda knowledge mentioned in ancient “Puranas” must be carefully tapped and properly managed with the implementation of Knowledge Management to ensure sustainability.

The introduction of the term Knowledge Management in the 1980s was not accidental. The phrase “Knowledge Management” is explained as the systematic, explicit, and deliberate building, application and renewal of knowledge to maximize an enterprise’s knowledge-rated returns and effectiveness from its knowledge assets. Although it happened gradually and managements often voiced their uncertainty, it was a natural change brought about by numerous factors (Wiig, 1997). Knowledge Management, as an emerging management technique, aims at solving the business challenges so as to increase efficiency and professionalism.

Peter Drucker, management professor and sociologist (1993) had pointed out the shift from post capitalist society to knowledge society. The premise for the need for management of knowledge is based upon a paradigm shift in the business environment where knowledge is vital to organizational performance. Nonaka and Takeuchi (1995) studied how knowledge is produced, used and diffused within organizations and how this contributes to the diffusion of innovation. Nonaka (2007) authenticates that in any economy where the only certainty is uncertainty, the one definite source of long-lasting competitive advantage is knowledge. When markets of a product shift, competitors multiply, technologies proliferate and products become obsolete almost overnight. Successful organizations are those that consistently create new knowledge, widely disseminate
that knowledge throughout the organization and quickly embody it in new technologies and products.

In the modern economy, the most important responsibility of the management of an organization is creation of knowledge as it is a vital factor affecting an organization’s capacity to remain competitive in the new global economy. (Ishak, Eze, Sook, 2010). The organizations that are able and efficient to manage uncertainty through knowledge creation and dissemination across all levels throughout the organization are treated as successful organizations. (Chawla., Joshi, 2011). Knowledge regulates the firm’s core competencies (Prahalad & Hamel, 1990) and also determines value creation (Grant, 1996). In addition to knowledge creation, scholars of the modern world have stressed a lot that sharing and utilization of knowledge is essential for organizational effectiveness (Tsai, 2001; Nonaka & Takeuchi, 1995; Akram & Bokhari, 2011). The way an organization creates, collects, shares and exploits this knowledge can be central to its ability to develop successfully. Thus, knowledge has been treated systematically like other tangible resources and many organizations are exploring the field of knowledge management in order to improve and sustain their competitiveness. (Al-Hawary, 2015)

In a nutshell, Knowledge Management (KM) refers to getting the right knowledge, in the right place, at the right time. The right knowledge is the knowledge that a person needs to have to do his job to the best of his ability. In the context of Ayurveda, it means diagnosing a patient, duly communicating with patients, making a decision, administering a treatment, mentoring a new colleague, booking a referral, interpreting a section of research, dealing with suppliers, managing a project etc. Information and knowledge can usually be found in a variety of places – books, reports and manuals, research papers, databases etc. Often it will be in people’s mind. Sometimes the right place may be in a meeting, hospital bedside, patient helpline, behind a reception desk and so on, that depends on the point of action or decision. The right time is when the person or the team is doing the work or the time when the knowledge is needed.
Knowledge creation is a human activity while managing humans is a Human Resource (HR) activity. Recently many scholars have argued that knowledge is dependent on human resources and that Human Resource Management (HRM) practices, such as recruitment and selection, training and development, performance management, fixing pay and reward, as well as the creation of a learning culture and environment are vital for managing knowledge within firms ((Evans, 2003), (Carter & Scarbrough, 2001), (Currie & Kerrin, 2003), (Hunter, Beaumont, & Lee, 2002), (Edvardsson, 2007)). Carter & Scarbrough argued that there is an urgent need for a greater interaction between the concerns of Human Resource Management and Knowledge Management. Several studies in various business sectors suggest that organisations need to pay attention to HRM practices to facilitate knowledge sharing behaviour.

Human Resource Management (HRM) is the process of procuring, developing, and retaining competent human resources in the organisation. The core purpose of HRM is to make efficient use of existing human resource in the organisation. According to Armstrong (2010), human resource management has a pivotal role to play in ensuring that right knowledge leads to performance in the organization. He suggests different ways wherein human resource can contribute to knowledge management such as developing a culture emphasizing the importance of knowledge sharing, promoting a climate of commitment and trust, encouraging the cause of knowledge management and supporting knowledge management initiatives (Armstrong, 2010). According to Evans (2003), the core business of the HR function is to develop the employees in accordance with the business strategy, select and hire people, train and develop the workforce, evaluate their performance, reward them and create a culture of learning (Evans, 2003). Knowledge is mainly dependent on people who depend on HRM practices, such as recruitment and selection, education and development, performance management, pay and reward as well as the creation of a learning culture that are vital for managing knowledge within firms (Edvardsson, 2007).

Managing knowledge in the healthcare organizations is considered to be very important due to the characteristics of healthcare situations and the knowledge management stages. For providing a high quality of health care, effective
knowledge management through the better HRM practices is needed. Human resources, pertaining to health care can be classified as clinical and nonclinical. The performance and the quality of service delivered by the health care system depend upon the knowledge, skills and motivation of human resources of this sector (World Health Report, 2000).

Ayurveda is found in the Rig Veda and the Atharva Veda, both from the second millennium BC. It is believed to be one of the world's oldest medical systems which originated in India and is now one of the most recognized and widely practiced disciplines of alternative health care system (Dennis, Weber & Killen, 2015; Agrawal & Tiwari, 2017). The ancient Indian concepts relating to health care are holistic and that traditional medical knowledge asset is still precious. Hence proper management of the traditional knowledge assets for the future need is one of the major challenges that Ayurveda organisations are facing today.

1.1 Statement of the Problem

In the present era, as a complementary and alternative system of medicine, Ayurveda has gained more significance than ever. Ayurveda industry, being a knowledge-based industry, depends largely on the management of its knowledge and the quality of its human resource. The real knowledge level of human resources is the genuine asset of Ayurveda industry. In the case of organizations, knowledge acquired once must be codified and recorded for future requirements. For effective Knowledge Management, each Ayurveda organization must identify its own knowledge assets in order to sustain its efficiency.

Ayurveda industry as a service sector has a significant role in India’s healthcare sector. It mainly consists of small and medium sized organisations rather than large organisations. In Kerala, most of the small and medium Ayurveda organisations are owned and managed by Ayurveda physicians and not by management professionals. Most of the organizations follow informal Human Resource Management practices and Knowledge Management system and do not possess a clear awareness about their own strengths and opportunities. The heterogeneity that persists in the Ayurveda industry, especially in the approach
Introduction
towards professionalism, is disadvantageous to the small and medium firms. Due
to many reasons like lack of planning and organizing, lack of finance, lack of
realizing one’s own real strength and lack of managerial skills, the Ayurveda
industry in Kerala is still lagging behind in the healthcare system even though it is
a growing industry which has a rich traditional knowledge base. Hence
identification of one’s own Knowledge Asset and understanding of how to manage
these assets in order to realize the competitive advantage is very important for each
and every organisation.

The immensely rich knowledge in Ayurveda can be best utilised for human
well-being, if Ayurveda practicing organisations adopt better Human Resource
Management. For managing Knowledge Assets in Ayurveda industry, the owners
of the organisation must realize its importance first and then try to convert it into a
benefit for the society. For deriving better economic benefits from the traditional
knowledge, proper knowledge asset management is required and for the execution
of knowledge asset management, effective human resource management practices
is needed. For effective knowledge management of this traditional health care
system, proper management of human resources is also needed. Although
Ayurveda is widely practiced in Kerala, studies relating to knowledge creation,
sharing, storing and disseminating knowledge practices and the Knowledge Asset
Management of Ayurveda are scanty. Hence the present study on “Management of
Human Resources and Knowledge Assets in the Ayurvedic Industry in Kerala” is
intended to identify how far the practices of Human Resource Management and
Knowledge Asset Management are existing and influencing the Ayurvedic
organisations in Kerala.

1.2 Research Gap

From the review of the collected literature (presented in chapter two), it can
be perceived that Knowledge Management is a key concept that attracts much
attention in the present business world. According to Wiig (1997), the business
world practices the system of knowledge management to attain two important
objectives. The first one is to convert the organisation into an intelligently
successful one, and the second one is to identify the better value of their
knowledge assets. By realizing the value of knowledge, organisations have begun
to manage and improve their knowledge assets professionally. For the implementation of Knowledge Management system, effective Human Resource Management is required. Many researchers have attempted to explain the relation between Knowledge Management Practices and Human Resource Management and their role in organizational performance (Kumar, 2016).

There is an abundance of international studies abroad that explain the benefits of Knowledge Management. But studies in India are scanty [(Suresh, 2013), Thakur & Sinha (2013), Chawla & Joshi (2010)]. Another important fact is that almost all the researches describe how large companies are successfully executing Knowledge Management Practices, but only few studies have been done in small organizations [Vasudevana & Chawan, (2014), Anand & Singh, (2011)]. It has also been noted that knowledge management is more complex in the healthcare sector and few studies are available to guide the researchers, especially in India. In the case of Indian System of Medicine, the studies about Knowledge Management or Human Resource Management are very rare, especially in Kerala. Management of human resource as well as management of Knowledge Asset is equally important for the development of Ayurveda industry in Kerala. Hence the present study entitled “Management of Human Resources and Knowledge Assets in Ayurvedic Industry in Kerala” is an effort to understand the existing practices of Ayurveda industry in this regard.

1.3 Significance of the Study

Knowledge Management and Human Resource Management practices are not only important for large organizations but are equally important for small organisations to achieve better outcomes. Especially in the case of health care organizations irrespective of their size and mission, they all are basically knowledge-based organizations and their most important asset is human beings. The quality of the health care organisations mainly depends on the quality of human resources. Human resources in health care sector always seek to improve the quality of services through proper Knowledge Management in order to acquire patients' satisfaction.
Knowledge Asset Management can help Ayurveda organizations in the process of gathering, managing, and sharing the traditional knowledge of health care throughout the organization for enhancing existing knowledge assets. For that, proper management of human resources is also needed. Managing the knowledge assets of an organization is very important for Ayurveda industry to develop sustainability and withstand challenges in the modern competitive world. As a growing industry, many studies have been undertaken on Ayurveda industry. However, there is no in-depth study exclusively on the management of Human Resource Management and Knowledge Asset Management of Ayurveda industry in India.

Management of Knowledge Assets can be done effectively and efficiently with proper alignment from Human Resource Management. In any organization, through an efficient recruitment and selection process, the appropriate human resource can be procured and then with proper training, their knowledge creation and skill acquisition can be developed for the requirement of the organization. Through the provision of proper reward and welfare facilities, human resource can be retained within the organization and through their knowledge sharing and transfer, organizational knowledge assets can be enhanced. With good performance appraisal method, knowledge and performance can be evaluated; which facilitates further growth and development. Successfully managed human resources can meet the expectations of knowledge management. Thus through the implementation of human resource practices, knowledge asset management can attain its success and can ensure organizational effectiveness. In this context, the present study is significant as it investigates into the effects of existing management practices of human resources and Knowledge Assets in Ayurveda Industry, along with the problems and possibilities related to knowledge asset management as well as its impact on the sustainable performance of this industry.

1.4 Objectives of the Study

The overall objective of this study is to assess the practices of Human Resource Management and Knowledge Asset Management in Ayurveda industry in Kerala State. In view of the overall objective, the specific objectives are:
1. To study the potential of human resource in Ayurveda Industry in Kerala.

2. To study the influence of Human Resource Management practices on performance of Ayurveda Medical Practitioners.

3. To identify Knowledge Assets of Ayurveda industry.

4. To study the knowledge asset management practices in the Ayurveda industry.

5. To examine the techniques and methods used for the Knowledge Asset Management Practices

6. To examine the influence of knowledge asset management practices on organisational performance.


8. To identify common problems experienced in the knowledge asset management system in Ayurveda industry.

1.5 Hypotheses

1. There is no significant influence of Human Resource Management practices on the performance of Ayurveda medical practitioners of Kerala.

2. Knowledge Asset Management practices have no significant influence on Organizational Performance.

3. There is no significant influence of Human Resource Management on the Knowledge Asset Management Practices of Ayurveda industry.

1.6 The scope of the Study

Ayurveda industry is one of the health care sectors broadly comprising of public and private hospitals. The Human Resources of the sector includes Ayurveda Medical Practitioners, Therapists, Nurses and Pharmacists. It also includes the people, activities, and organizations involved in the production of Ayurveda medical equipment and pharmaceutical products. To run an ayurvedic health center as per the regulations of Kerala Ayurveda Health Centres (Issue of
License and Control) Act, 2007, there shall be at least one Ayurveda Medical Practitioner of full time service, registered under the Travancore-Cochin Medical Practitioners Act, 1953. To obtain a drug manufacturing license for ayurvedic medicine and GMP Certificate as per the Drugs and Cosmetics Rules 1945 under the Act Drugs and Cosmetics 1940 (1), production must be under the direction and supervision of competent technical staff consisting of at least one person who is a full time employee and having specified qualifications in Ayurveda as per the rules. Thus the role of Ayurveda Medical Practitioners (AMP) in Ayurveda industry is inevitable. Besides, most of the Ayurvedic organisations are owned or managed by Ayurveda Medical Practitioners. As mentioned, they perform management functions too in addition to medical practice. Hence AMPs are the better informnants on any study related to management. In this context, this study attempts to evaluate the influence of HRM on the performance of medical practitioners as well as the impact of Knowledge Asset Management on organisational performance, on the basis of the perception of Ayurveda Medical Practitioners in Kerala.

1.7 Operational Definitions and Concepts

For the meaningful reading and proper understanding of the thesis, the domain or industry-specific concepts and definitions to be conceived are given below.

i. Human Resources in Healthcare

Human resources in healthcare generally include physicians, nursing professionals, dentists, allied health professions, community health workers, social health workers and other health care providers, as well as health management and support personnel. In this study human resource refers to Ayurveda medical practitioners who are engaged in treatment, administration of organisation as well as manufacturing of medicine.
ii. Human Resources Potential

Human resources potential is defined for this study as “the quantity of prospective Ayurveda medical practitioners in the Ayurveda industry”. The study covers only the number and ratio of BAMS graduates in this field.

iii. Alternative Medicine

Alternative medicine in this study means “any practice or products that are put forward as having the healing effects of medicine, but is not proved on the evidence base, using the scientific method.”

iv. Ayurveda Industry

Ayurveda industry refers to an economic activity that comprises of providers of Ayurvedic diagnostic, preventive, remedial, and therapeutic services such as physicians, nurses, hospitals and other private, public, and voluntary organizations. It also includes Ayurvedic medical equipment and Ayurvedic pharmaceutical manufacturers.

v. Knowledge Management

Knowledge management is the systematic management of an organization's knowledge assets for the specific purpose of creating value and meeting tactical and strategic requirements. Knowledge management involves the identification and analysis of available and required knowledge and the subsequent planning and control of actions to develop knowledge assets so as to fulfill organisational objectives.

vi. Knowledge Assets

Knowledge assets refer to the accumulated intellectual resources within a business that makes it more valuable or competitive. Knowledge assets cover the knowledge regarding markets, products, technologies, and organizations that a business owns or needs to own and which enable its business processes to generate profits. It is the knowledge possessed by an organization and its workforce in the form of information, ideas, learning, understanding, memory, insights, cognitive and technical skills, and capabilities.
vii. Knowledge Asset Management

Knowledge Asset Management is defined as the systematic management of an organization's knowledge assets for the purpose of creating value and meeting tactical & strategic requirements of an organisation.

viii. Knowledge

Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, or descriptions, which are acquired through experience or education by perceiving, discovering or learning. Knowledge can refer to a theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic.

ix. Organizational Knowledge

Organizational Knowledge refers to individual knowledge paired with that of other individuals in an organization. Organizational knowledge is the type of knowledge asset within a business, to which no value can be named. When individuals pool their knowledge within an organization, that knowledge can give the organization advantages over others in the same field.

x. Market Knowledge

Market knowledge means knowledge regarding market, which involves knowing the customer’s need, market trends, market size and market share, for making an evaluation of the demand and supply of certain products, other competitors and other similar products or services and the psychology of the market and political stability etc. It helps to provide market awareness that contributes a lot to the success of any business.

xi. Product Knowledge

Product knowledge means knowledge regarding product which provides a better understanding of the product or service offered by a firm that includes gathering information about the characteristics of the product, functional features and use of the offerings. Product knowledge about the goods and services include
acquiring information about its application, function, features, uses and support requirements. This knowledge is crucial for creating a positive customer experience and instilling faith and trust within the customer.

xii. Knowledge Creation

Knowledge creation means the ability to create new knowledge or formation of new ideas through interactions between explicit and tacit knowledge in individual human minds.

xiii. Knowledge Sharing and Dissemination

Knowledge sharing is an activity through which knowledge i.e., information, skills, or expertise is exchanged among people, friends, families, communities or organizations. Dissemination is the interactive process of communicating knowledge to change. Knowledge sharing activities are generally supported by knowledge management systems.

xiv. Knowledge Utilisation

Knowledge utilisation means the sum of actions that have the objective of maximizing the usage of research outcomes by third parties. Knowledge utilisation means using accumulated knowledge to tackle problems, develop new products and deal with unfamiliar situations.

1.8 Methodology

This research study is undertaken to analyse the existing practices of management of human resources and knowledge asset in Ayurveda industry and their influence on the performance of the industry. The unit of study is Ayurveda medical practitioners. The survey method was adopted for this study.

1.8.1 Research Design

This study is both descriptive and analytical in nature. The study attempts to identify the knowledge assets of the Ayurveda industry and describes it. The study also analyses the influence of HR practices and Knowledge Asset Management Practices on the performance of medical practitioners as well as Ayurveda organizations in Kerala.
1.8.2 Data Source

This study makes use of primary data and secondary data. The secondary data were collected mainly from the Travancore Cochin Medical Council for Indian Systems of Medicine, Thiruvananthapuram; Office of the Drugs Controller, Arogya Bhavan, Thiruvananthapuram; Ayurveda Medical Association of India; and Ayurveda Drug Manufacturers' Association. Besides, the available literature was collected from libraries of the University of Kerala; Mahatma Gandhi University; Institute of Management in Kerala; State Central Library, Thiruvananthapuram; ICSSR, New Delhi; and from the E-journals of Emerald, Sage, and Wiley publications.

The primary data were collected from the selected Ayurveda medical practitioners of selected Ayurveda organizations of Kerala by using a structured questionnaire. The questionnaire used for collecting data was designed and tested by the Researcher, before administering it.

1.8.3 Period for the Study

After review of literature and discussions with the Ayurveda medical practitioners, the questionnaire was framed to conduct the pilot study. The pilot study was conducted among 50 Ayurveda medical practitioners of 30 different organisations for a period of four months from 2014 June to December 2014. After testing the reliability and fixing the sample, the final questionnaire was administered to 375 sample Ayurveda medical practitioners for a period of nine months from 2015 March to November.

1.8.4 Research Instrument

A well-structured questionnaire is prepared with the objective of collecting information from Ayurveda medical practitioners of Kerala about their opinion and perception about Human Resource Management and Knowledge Asset Management and their impact on the Ayurveda industry. The detailed discussions with experienced Ayurveda medical practitioners were very much helpful in the identification of relevant variables relating to the human resource management practices and Knowledge Asset Management practices of Ayurveda industry and the preparation of the questionnaire. The Questionnaire is given in Appendix –I.
1.8.5 Population

The population for the study is the Ayurveda Medical Practitioners of Kerala who have registration in the Travancore Cochin Medical Council for Indian Systems of Medicine, Thiruvananthapuram, as on 31-12-2014. The size of the population was 15160. For designing the sampling frame, a pilot study was conducted by the Researcher.

1.8.6 Pilot Study

A pilot study was conducted by using questionnaire among 50 Ayurveda Medical Practitioners in Kerala. The Researcher directly approached all the Ayurveda medical practitioners considered for the pilot study. The data provided by them were studied in detail to incorporate necessary modifications in the questionnaire. Five-point scaling techniques were mainly applied in the questionnaire. Reliability analysis was done on the responses pertaining to the Human Resource Management practices and Knowledge Asset Management practices based on various statements recorded on a five-point scale. The reliability was determined by using Cronbach’s Coefficient Alpha.

The following are the details of the reliability test of various scales used in the schedule.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach’s Alpha</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resource Management Practices</td>
<td>0.978</td>
<td>40</td>
</tr>
<tr>
<td>Self-appraisal about individual performance</td>
<td>0.766</td>
<td>10</td>
</tr>
<tr>
<td>Knowledge Asset Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identification</td>
<td>0.750</td>
<td>10</td>
</tr>
<tr>
<td>Practices</td>
<td>0.976</td>
<td>18</td>
</tr>
<tr>
<td>Evaluation</td>
<td>0.945</td>
<td>5</td>
</tr>
<tr>
<td>Problems</td>
<td>0.875</td>
<td>10</td>
</tr>
<tr>
<td>Benefits</td>
<td>0.984</td>
<td>10</td>
</tr>
</tbody>
</table>

As the value exceeded the minimum requirement 0.700, all the statements included in the questionnaire are internally consistent.
Introduction

1.8.7 Sample Size

In this study, all the Ayurveda medical practitioners registered under medical council for practicing is considered as population. The population is large in size but homogenous. Hence the sample size was determined through the use of Kukeran Formula.

Kukeran Formula.

\[
n = \frac{Z^2 \cdot pq}{d^2} \times \left( 1 + \frac{1}{N} \left( \frac{Z^2 \cdot pq}{d^2} - 1 \right) \right)
\]

Z = statistic for a level of confidence (e.g. 1.96 for 95 percent)

p & q = Expected proportion (0.5 used for sample needed)

n = sample size with definite population

d = precision (0.05 used for sample needed)

N = Whole Statistical population

For the target population of 15160, with a margin of error of five percent and 95 percent confidence level the recommended sample size was 375.

1.8.8 Method of Sampling and Sample Design

A multi-stage random sampling technique was applied for the selection of sample:

In the first stage, the State was divided into three regions, namely, north, central and south. In the second stage, two districts, from each region were randomly selected. In the third stage from the selected districts, 375 samples were selected using the random method. The following is the details of the sample selected for the study.
### Introduction

<table>
<thead>
<tr>
<th>State</th>
<th>Region</th>
<th>Districts</th>
<th>Sample Selected</th>
<th>Total Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerala</td>
<td>North</td>
<td>Kozhikode</td>
<td>Kannur</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>Central</td>
<td>Thrissur</td>
<td>Ernakulam</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>South</td>
<td>Kollam</td>
<td>Thiruvananthapuram</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>375</strong></td>
</tr>
</tbody>
</table>

From northern region two districts viz, Kozhikode and Kannur were randomly selected, and 119 respondents were identified. From the central region two districts viz, Thrissur and Ernakulam were randomly selected and 130 samples were collected through random sampling technique. From the southern region two districts viz, Kollam and Thiruvananthapuram were randomly selected and from there 126 samples are obtained.

#### 1.8.9 Statistical Tools for Analysis

The following statistical tools were used for analysis of the study.

- **Descriptive Statistics**: Descriptive Statistics such as mean, standard deviation, percentage were used to summarise the study variables under the study.

- **Chi-square Test**: Chi-square is used to test the independence of two categorical variables.

- **One sample t-test**: To compare mean values of the response scores with an arbitrary constant, namely the mean of response scales

- **ANOVA**: To determine whether there are any statistically significant differences between the means of two or more independent groups

- **MANOVA**: To determine whether there are any statistically significant differences between more than one mean with respect to two or more independent groups

- **Spearman’s Rank Correlation**: To compare ranks of two independent samples
Multiple Regressions: To find out the effect of predictor variables on dependent continuous variables

Multiple Classification Analysis: To find out the absolute effect of predictor variables on dependent continuous variables

1.9 Limitations of the Study

Although this research was carefully prepared, there were some unavoidable limitations.

1. The study concentrated on the management of human resources and knowledge Assets from the views of Ayurveda medical practitioners only. The views of the other paramedical or administrative staffs were not considered.

2. The present study has relied largely on qualitative data collected from the perspectives of Ayurveda medical practitioners regarding non-financial aspects. The quantitative aspects of data used to measure the performance of an industry are not considered in this study to evaluate Knowledge Asset Management system.

3. Knowledge creation and sharing attitude may vary according to the professional status of Ayurveda medical practitioners. This study has not considered the status of Ayurveda medical practitioners like permanent employees, temporary employees or self-employed.

4. Even though extreme care has been applied to avoid the pitfalls like perceptual differences occurring out of individual viewpoints, there is a chance that a few biases on the part of the respondents might have crept in.

1.10 Chapter Scheme

The thesis is presented in six chapters, as follows:

Chapter 1 is an introduction to the study. This chapter signifies the background of the study. It also presents the methodology viz. statement of the problem under study, research gap, significance of the study, objectives and hypotheses, scope of the study, methodology of the study, operational definition of key terms and the limitations of the study.
Chapter II presents Review of Literature based on the previous studies. The abstracts are presented in two sections; the first section consists of abstracts related to human resource management practices and its influence on organisational performance. The second section consists of abstracts of studies related to knowledge asset management practices and its impact on organisational performance. These studies are arranged in chronological order starting from the latest year.

Chapter III gives a theoretical overview of the study. It consists of conceptualization of Knowledge Asset Management, theoretical concepts of Human Resource Management and theoretical background of Ayurveda knowledge.

Chapter IV is a presentation of survey results on Management of Human Resources in Ayurvedic industry. It contains mainly human resource potential and human resource management practices of Ayurveda Industry.

Chapter V deals with analysis related with knowledge Assets and knowledge asset management practices of Ayurveda Industry and the results are given in five sections. It deals with the identification of Knowledge Assets, study the knowledge asset management practices, methods used for knowledge asset management, impact of Knowledge Asset Management on organisational performance and problems and benefits of knowledge asset management practices in Ayurveda industry.

Chapter VI concludes the study with the summary of findings derived from the analysis along with policy implications and suggestions.
Introduction

References


Introduction


