

## CHAPTER 2 : BACKGROUND

### 2.1 Background

Marakanda AB Sweden is mainly involved in providing software solutions to the international market. They are currently enjoying a market share of around 20% in their respective category in domestic market (Sweden). In order to implement the various products in their customer sites, the staff has to travel regularly. To manage those traveling expenses they needed an application which can use via web. Propose travel expense application developed to fulfill that requirement.

Proposed software application will cater to manage the travel expenses of a company in a more precise manner. The application will be helpful for employees to claim their traveling expenses related to official visits from any where in the world. It will include enter all expenses related to a particular travel, apply all business rules, calculate the correct amount for bill, send it for approval via electronically, and finally attesting it.

**Simple for the traveler, economical for the payer**

Perception of business travel is changing rapidly. All companies, organizations and public authorities are seeking to reduce their travel costs. Agreements with travel suppliers are being renegotiated, travel policies are being put under the microscope and internal travel management is being reviewed. All measures are important, but a comprehensive and flexible travel management system is often the foundation and a precondition for succeeding with changes in the long term.

Propose system will automate all parts of travel management from traveler profiles, travel booking and travel expense accounting to invoice management and salary payment. Travel administration is more efficient at every step. Time and resources are saved when all bookings and all management of documents take place electronically, and it is easy to obtain an overview of the travel patterns in the company.

Opportunities for statistics, control and follow-up are virtually unlimited with this system. At the same time it is an efficient tool for implementing the company's travel

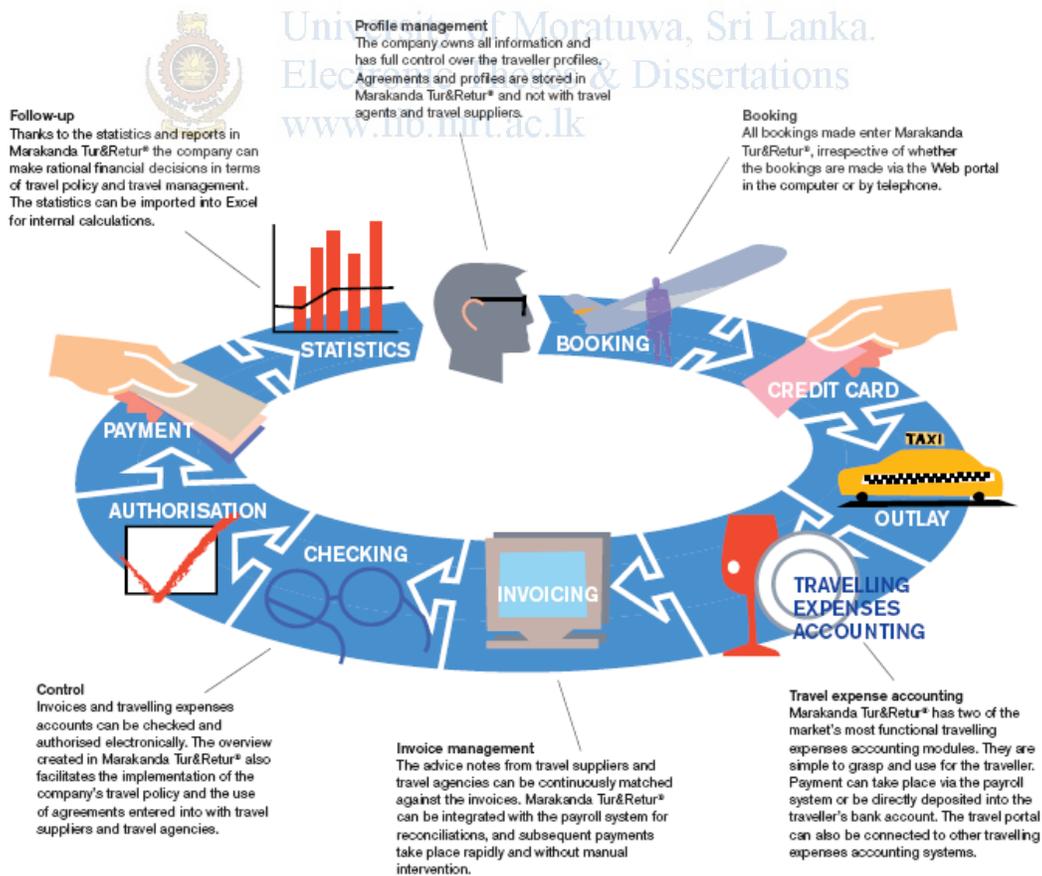
policy, as there is the facility in the system to add only the suppliers the company has chosen to collaborate with.

One of the major advantages is that the company and its travel supervisors retain control over the travel profiles of their staff.

Propose travel expense system is a complete solution for electronic travel management, where traveler profiles, bookings, traveling expense accounts and invoices are managed via a web-based business travel portal. Travel management becomes more efficient through taking a collective grip, which means reduced costs for business travelers.

As a result of implementing such a system, company can reduce the costs for business travels as well as easy to manage all travels in a precise manner. This will help managers to track all expenses of a travel related each project and also easy to calculate the cost of project before finish the implementation.

**Figure 2-1 Basic flow of the travel**



## 2.2 Problem

In this project I am only focusing to the travel expense accounting part. The main feature in the application is that it calculates the travel allowances according to the rules defined in the system and print a travel expense report for the traveler. This will consist basically travel advances, day allowance, night allowance, traveling time allowance, car allowance, traveling expenses, meal deductions and any interruptions during the travel. Further the expense report enters by a traveler is going through an approval process. Finally traveler can claim the expenses using approved travel bills.

Travel expense system will cater for mainly two types of travels, as international Travel and domestic travel. Again these two types can be divided in to multi day and single day travel. According to these types the business rule that has to be applied on a travel, will be changed.

The final claimable amount will depend on the number of days travel with effect of start and end times, country where traveled, meal information's during the stay, traveling times, way of travel (for example by car, taxi, train, flight), any other claimable expenses occurred and interruptions during the whole travel period. According to the time duration, country of visit, and the contract between employee and employer, the allowance amount for a day will be changed.

When user enters all relevant data in travel bill, the system will calculate the correct allowance amount using the rates define in the applicable rule. For that purpose the application will allow to define rules (we say it as agreements) with relevant amount for various conditions.

Travelers can request for an advance amount before travel starts. These advance amounts will be deducted against the relevant travel bill when doing the payments.

After user enters the travel expenses, it will be sending for approval. By the same time the approver should be notified by a message (email) that there is a travel bill is pending for his/her approvals. When approver approved the travel bill, it will be ready for payments and payment department should be notified.

Within this application user will allow to do the following functions

**Figure 2-2 Main functions**

Travel Advance	Traveler	Create / Edit / Search / Link to Travel Bill
Travel Bill	Traveler	Create / Edit / Delete / Copy / Search
	Approver	Search / Approve / Reject
Agreement (Rule)	Administrator	Define / Load / Edit / Search

The travel bill calculation rules (agreements) are defined in the system in a flexible manner and the calculation process should cater to calculate the amounts correctly depending on the entered information in the travel bill. It will have the flexibility to define different agreements for each calendar year, type of travel as international or domestic and other criteria that company wish. The link between traveler and agreement will maintain by a contract between these 2 parties.

Travel Expenses section can be categorized into two sub sections as Travel Bill and Travel Advance. Travel advance is given prior to the travel and relevant advances will set off against the relevant travel bill.

System will facilitate to enter travel bill by traveler him/herself or by a secretary. Some employees are allowed for car usage and claim the car expenses. All interruptions during the visit also should be captured. After user enters the relevant data the final travel bill should be calculated automatically using a predefined travel agreement in the system.

When complete entering the data the travel bill should be send for approval. There can be more than one person involve in to this approval process of a particular bill. Approver can approve or reject a travel bill. When approver rejects the bill system should notify to the traveler.

Users with no valid employment can't create any travel bill or travel advance. I.e. when there is an employment stop date, in the user's profile, which has been passed by the current date, the traveler will be able to enter travel bills only until that date.

The traveler's default accounting information will be copied to the accounting fields in the travel bill as default value. The traveler and secretary can only edit travel bills with the state Preliminary or Rejected. The approver/reviewer can edit others travel bills with the state definitive/approved.

## **2.3 Similar Implementation**

There are several past attempts were taken to implement such an automated travel management system for Marakanda by past employees. But those attempts are failing due to insufficient funds as well as insufficient employees allocated to internal IT.

## **2.4 A Survey of Similar System**

Most of the commercially available systems are focus only the booking part of the travel management system. That is reservation of hotels, tax and flight etc. Here is some example of similar systems.

### **2.4.1 Travel Management System ((TMS) Software Application)**

The Travel Management System (TMS) is a software application which provides organizations having a high volume of travel with a complete solution to manage all business processes and data related to travel. Originally designed for organizations in remote regions, especially in the Health Care sector, the TMS has been adapted to provide benefits to any organization in the public and private sectors.[8]

### **2.4.2 SkyGate International**

Since 1992 SkyGate International has developed innovation Travel Management solutions for Corporations and Travel Agencies. Our Travel Agency solutions include Newport, our multi-channel front-office solution, our CRM solution for key account and Sales and SpeedFares, our low-cost search engine. Our solutions for Corporations include travel management solutions for corporations with in-house travel departments and data consolidation for corporations that have outsourced their travel management operations. Our list of customers include renowned corporations such as BMW, Novo Nordisk and Ikea and leading Travel Agencies such as Via Travel, BTI, American Express and FCm Travel Solutions.[9]

### **2.4.3 Amadeus**

Amadeus, a leading global technology and distribution partner for the travel and tourism industry, has launched the latest version of its corporate self-booking tool, Amadeus e-Travel Management (v11.2), which includes an unused ticket trader feature and extended carrier content from two key Brazilian airlines, Gol - a low cost carrier - and TAM.

The new unused ticket trader which will initially be made available in the U.S. fully automates the entire process of managing unused air tickets from 26 airlines. This will bring significant cost savings for corporations and productivity efficiencies for travel management companies by making refunding bookings easier and quicker. The feature allows travelers to easily submit any previously unused domestic and international tickets towards payment of a new reservation and automatically calculates the fare for the new booking, including all applicable refunds, charges and taxes.

[10]

**Figure 2-3**

System	Travel Management System ((TMS) Software Application)	SkyGate International	Amadeus
Reservation	Yes	Yes	Yes
Expense Record	No	No	No
Calculation of travel expense	No	No	No
Accounting	No	No	No
Request Travel Advance	No	No	No

So there is no at least one travel management system which caters Marakanda requirements. That is managed travel expense of the employees; according to the rule and regulation define in the Europe tax department. May be this kind of systems is already developed but not available in commercial or open source.

## 2.5 Summary

The background of the project is presented in detail, considering the manual procedure of each activity of travel management, covered by Marakanda AB Sweden. And also discuss similar system and survey carry out with similar system.

Following chapter will discuss about requirements and how it analyzed.