“A Study on factors affecting adaptation and implementation of digital logistics management system among the staff of the logistics management department at Sankara eye hospital.”

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Contents

INTRODUCTION

Every day, many patients visit healthcare facilities for their physical or mental problems. The medical and administrative staff must manage and integrate clinical, financial, operational, and regulatory information.

All the health professionals use a Computer-based system for performing a specific type of management activities, and that is known as HIS/MIS, wherein Sankara eye hospital uses MoveX for managing day-to-day operations of Fleet management.

Fleet Management system plays a crucial role, in hospital having large fleet of vehicles. Fleet management system can perform spread of functions like- Vehicle Tracking, Driver management, Speed Management, fuel management ; these functions helps to reduce costs on fuel and maintenance.

MoveX is implemented across all Sankara eye hospital units in india but, somewhere it was lagging in adaptation by the employees, which have resulted incomplete data and confusing reports in the past.

OBJECTIVES

To identify the possible barriers in adapting a computer-based logistics system amongst the hospital staff involved in the Monitoring and Administration of fleet management.

To identify significant gaps present in MoveX- the Computer-based logistics system if any, contributing to adaptation and Implementation at Sankara Eye Hospital.

Identify problems faced by End-users and Administrators in the adoption of the MoveX.

To evaluate the suggestions and feedback provided by the administrators.

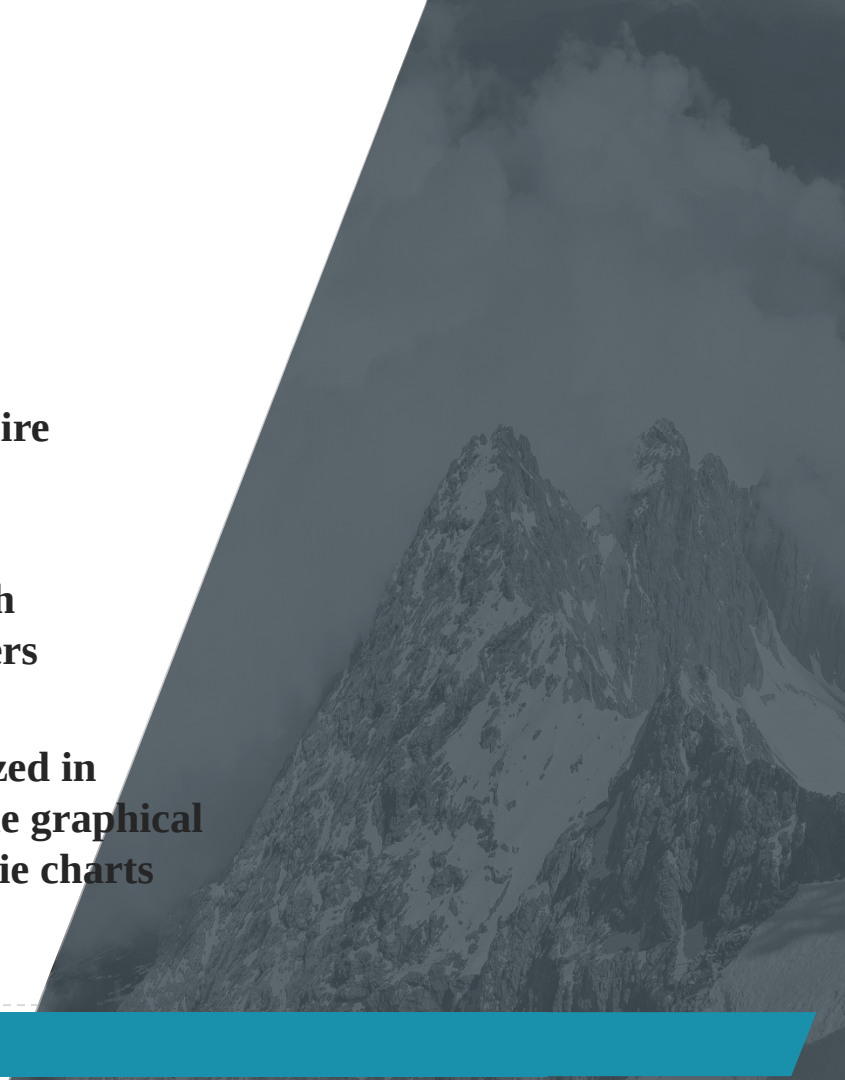
Suggest possible solutions for overcoming potential gaps and problems.

METHODLOGY

Study Design	Cross-sectional
Study Area	This study was conducted amongst various users of MoveX across all Sankara Eye Hospital units in India
Sampling Method	Total Enumeration Sampling / Census Sampling
Sample Size	33

METHODLOGY

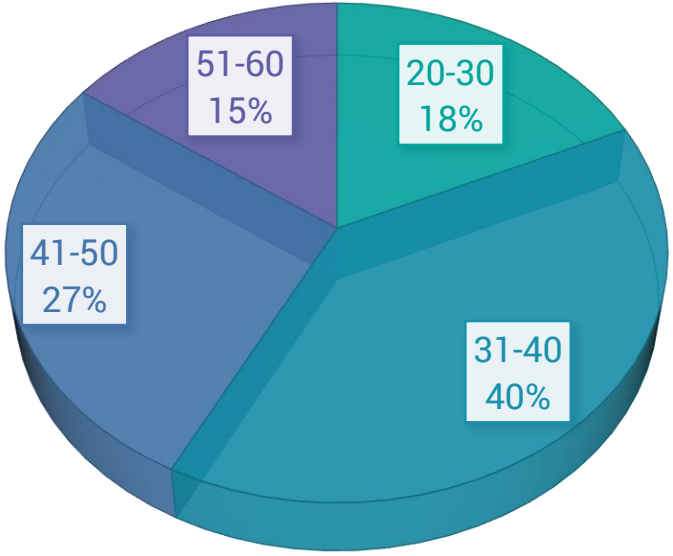
Study Duration	3 Months (03 February to 03 May)
Source of Data	Primary Data collected by a questionnaire
Data Collection Tool	Self-administered questionnaire for both the administrators and the fleet managers
Data Analysis Procedure	The collected response data were analyzed in Microsoft Excel 365 for analysis, and the graphical depiction was done as bar graphs and pie charts



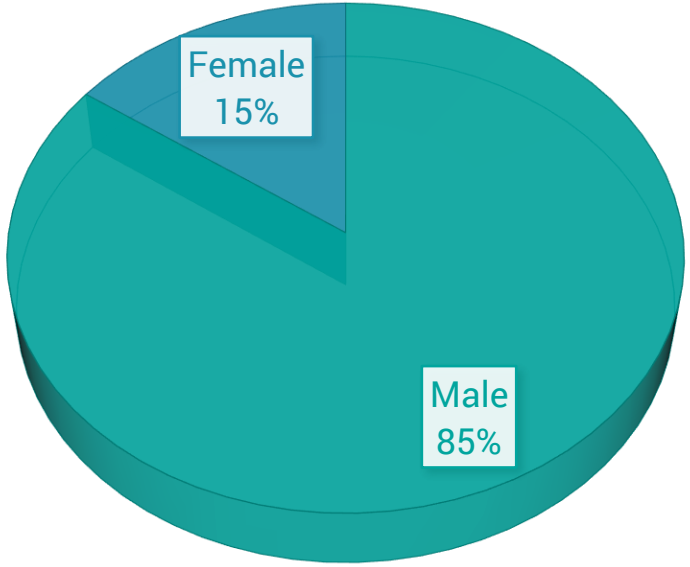
FINDINGS

Characteristics of Sample

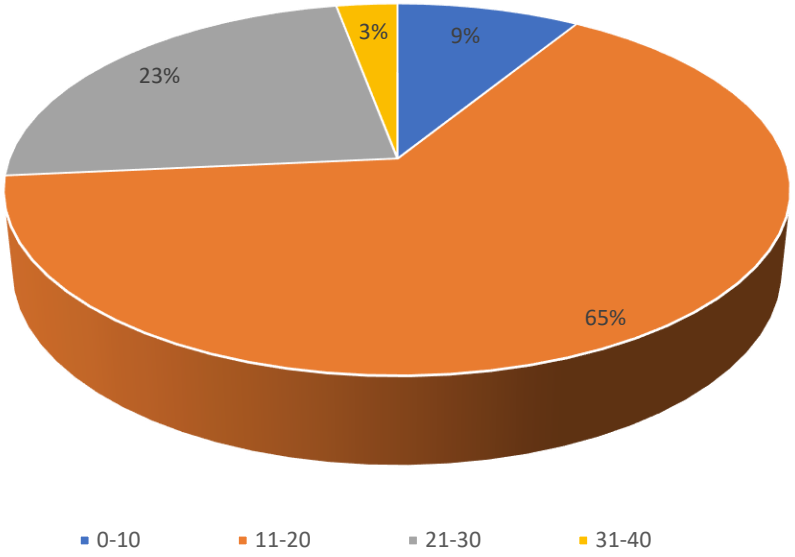
AGE WISE DISTRIBUTION



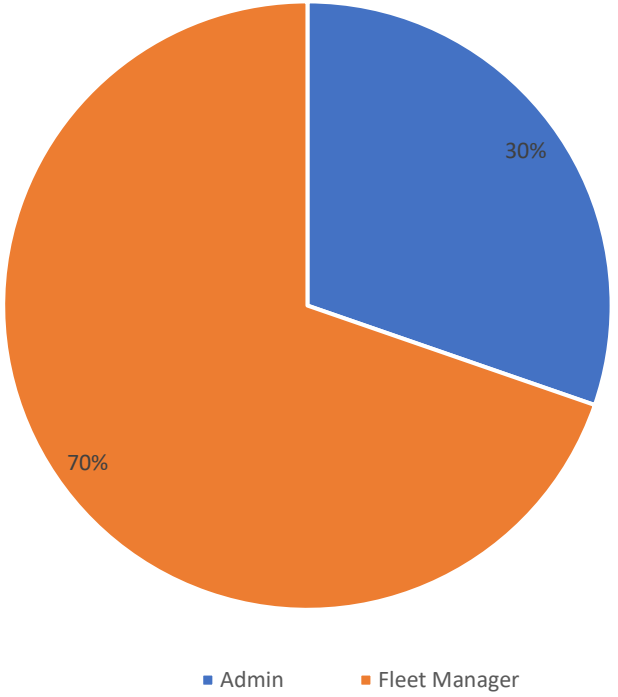
GENDER WISE DISTRIBUTION



Years of experience wise distribution



Designation wise distribution of Respondents



Unit Heads

Responses of Administration staff (Unit Heads) on various parameters

Sl No	Parameter	Yes	No
1	Lack of sufficient capital is a barrier?	40%	60%
2	Uncertainty of ROI	30%	70%
3	Receiving support from the vendor	100%	0%
4	Lack of proper IT support	30%	70%
5	Did MoveX enhance productivity?	100%	0%
6	Lack of proper training and guideline is a barrier?	50%	50%
7	Implementations lead to data safety issue	0%	100%

Percentage

Sl No	Factor	Not a Barrier	Minimum Barrier	Moderate Barrier	Major Barrier
1	Uncertainty of Return of Investment after implementing and using MOVEX?	0%	67%	33%	0%
2	Is the lack of a good IT support system a barrier in the Implementation of MOVEX?	50%	50%	0%	0%
3	Lack of proper training and unavailability of manuals or guidelines for using MoveX is a barrier?	0%	40%	40%	20%
4	Do you think that the lack of sufficient capital resources is a barrier in the Implementation of Digital fleet management like MOVEX?	0%	0%	100%	0%

Fleet Managers

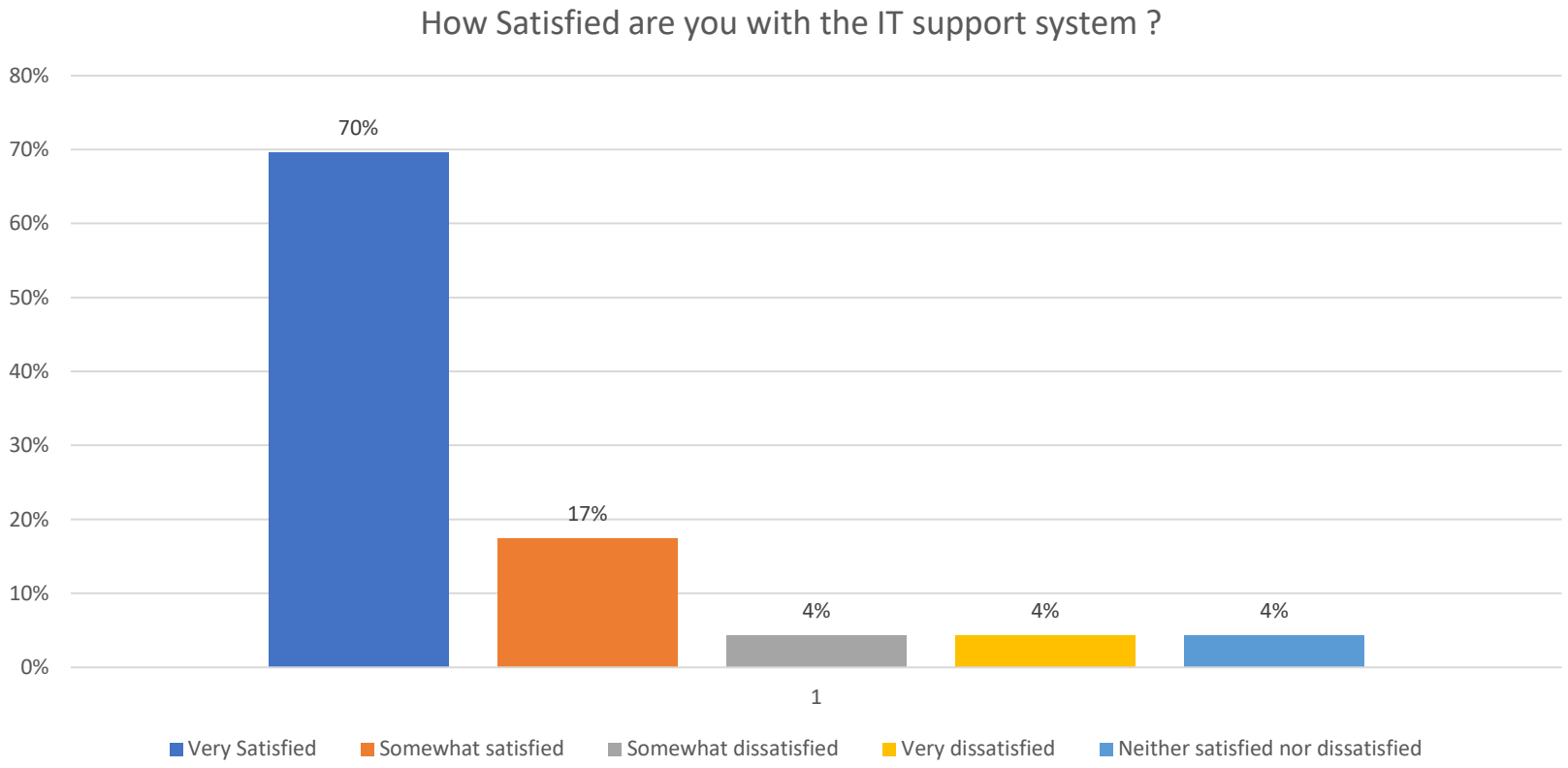
Responses of Fleet Manager on various parameters

Parameter	Yes	No
Current Software Meeting Needs	87%	13%
Difficulty in information exchange	30%	70%
Do you think there is a reduction in operation time	74%	26%
Lack of proper training and unavailability of manuals or guidelines for using “MOVEX” is a Barrier for implementation?	48%	52%
Does this software "MOVEX" Provide relevant information across the fleets and gives you value addition?	83%	17%
Improper Maintenance and technical support for hardware and network is a barrier in the use of “MOVEX”?	69%	31%

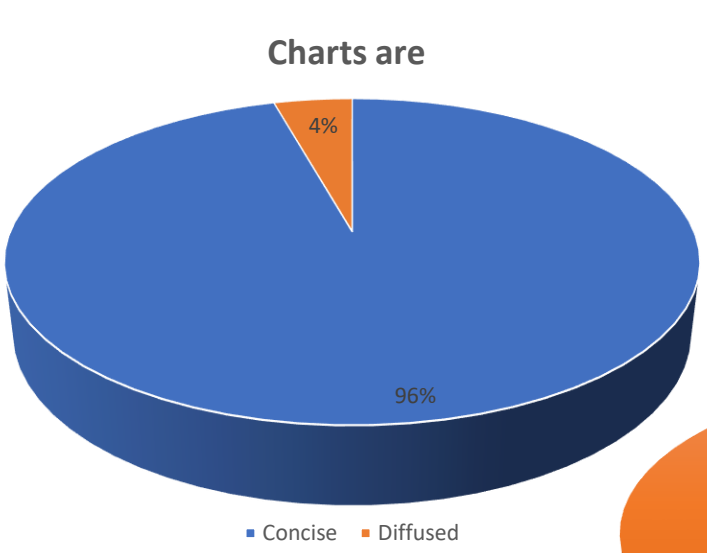
Percentage

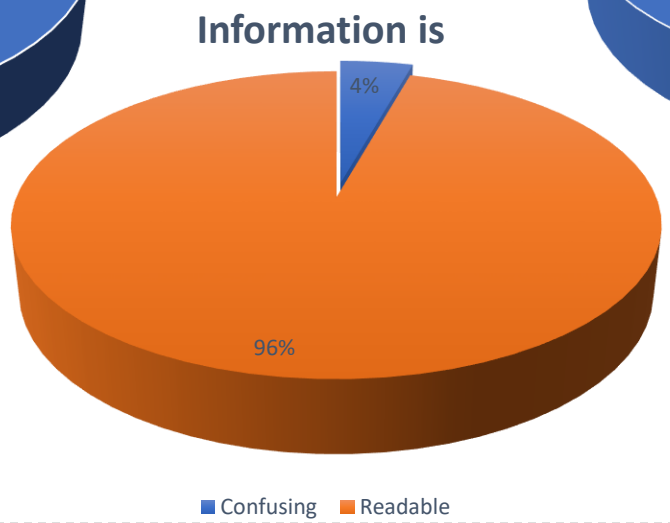
Sl no	Parameter	Not Barrier	Mnimum Barrier	Moderate Barrier	Major Barrier
1	Current Software Meeting Needs	33%	67%	0%	0%
2	Difficulty in information exchange	14%	14%	43%	29%
3	Do you think there is a reduction in operation time	50%	17%	33%	0%
4	Lack of proper training and unavailability of manuals or guidelines for using “MOVEX” is a Barrier for implementation?	18%	18%	18%	46%
5	Does this software "MOVEX" Provide relevant information across the fleets and gives you value addition?	25%	0%	50%	25%
6	Improper Maintenance and technical support for hardware and network is a barrier in the use of “MOVEX”?	31%	19%	19%	46%

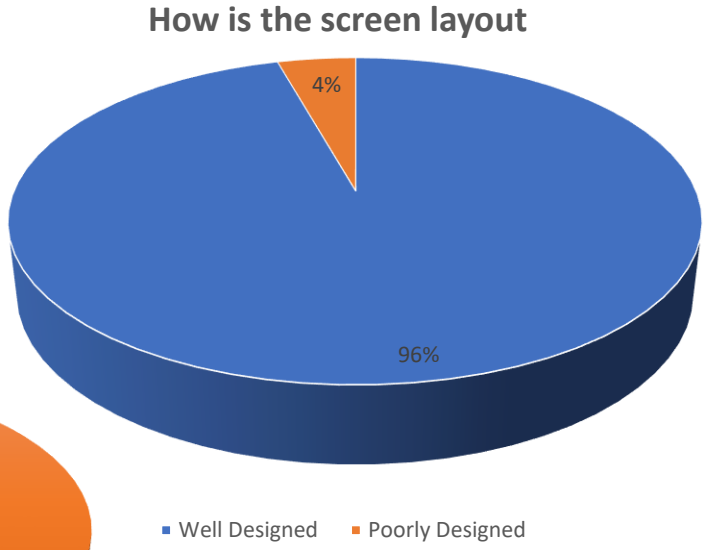
How satisfied are the fleet managers with the IT Support System



Response on User Interface







RESULTS

As per the Fleet Managers

Current software not meeting department workflow

These are some issues, which were denoted by fleet managers that some operations they have to do manually, like the entry from odometer reading, which is done by the security staff and same done by drivers in MoveX, where the security staffs are using traditional logbook for recording. All those data are re-entered into the system for checking.
Some of the other issues are the inability to edit data put by mistake and change of routes after starting a trip.

Difficulty in exchange of information

Difficulty in exchange of information means, unable to communicate to other departments like transportation department is unable to outreach department or user to IT Support.
The reasons vary from cases to cases like, "MoveX" is least compatible with the HMIS used in the hospital, which is "Medics" so the data from MoveX cannot be retrieved through medics. This is a critical issue which is faced by the end-users is the unavailability of the server. GPS/Network Failure, Hardware technical limitations, which could be improved to get more data about the fleet and can be used for better management.

No Reduction of operation time

Very few respondents said about no reduction in operation time, though everything is done digitally, some of the things like recording entry of time of drivers into campus.

Lack of guidelines, manuals, and training

As the fleet managers are more used to the traditional system of management, without proper training and less availability of Manuals is causing resistance in adaptation to use the system.

Lack of technical support for hardware as well as network

This is a place where the organization is doing excellent still, Some of the suggestions came, where the respondents said, they were unable to fetch Live GPS Location of fleet/fleets, Non-Availability of Halt data and prompt less support is always a barrier in implementation.

Screen Interface

This is a part, which is visible to the end-user, which is also called as a graphical user interface or GUI, As very few respondents have said, the data is not concise, and charts are diffused, though there were some suggestions for improving the screen interface. The less intuitive interface creates a barrier in implementation among the users.

MoveX not providing valuable information across the fleet

Not fetching crucial driving information during a trip, inability to track halt data, as well as the failure of GPS data, are the points which need to be addressed. As the information is crucial and neatness of data is also essential for analysis. This is also a significant barrier, which needs to be checked.

As per the Unit Heads

Uncertainty of Return on investment and lack of capital

In a financial aspect, the uncertainty of ROI and lack of sufficient capital has always been a barrier in implementing software solutions, because operational and maintenance cost is high on implementing digital solutions. Still, here, in this case, this was denoted as a minimum and moderate barrier.

Lack of IT support

This is also a very important factor, only 30% responded with lack of IT support.

Lack of Training and Guideline

Only 50% responded with a lack of training, and guideline is a barrier to implementation and adaptation. Lack of training always leads to confusion and slow working process.

CONCLUSION

- A digital fleet management solution is pointless, if the end-users will face challenges in daily usage and if the answer is unable to provide relevant and essential information, which can improve management of fleet in hospital.

- Barriers identified in this study are as per the Unit Heads are Lack of Training and availability of guidelines and the Uncertainty of ROI and lack of capital resources as well as lack of IT support and vendor support are the contributing factors in barriers of implementation and Adaptation of MoveX.

- As per the Fleet managers, the barriers identified in implementations and adaptation are difficulty in information exchange across department and challenges in meeting departmental workflow. Moreover, Lack of Training and availability of manual and guidelines are the profound barriers in implementation.

CONCLUSION Continued..

- As per the suggestion and report, the User interface is playing a vital role in the adaptation of the modern system by the end-users, Mostly regarded barrier is lack of IT support system, which plays a crucial role in daily issues regarding hardware and software.

- The barriers which were covered under the open-ended question were, inability to perform changes in route, in the ability to modify MIS entry data by the end-user and less training of end-users. These are all the barriers which were reported by the unit heads as well as Fleet managers

RECOMMENDATIONS

To achieve better smooth operation of the MoveX, Operation Manual and training of the end users could be made available.

Before Implementing any digital solution, Hospital Administration need to have a specific requirement list, so from the initial phase the software could be built accordingly

Fast Paced technical support could be implemented for better troubleshooting during significant problematic situations.

As the fleet managers are not much acquainted with modern technological systems, implementation of simple, concise user interface could be recommended. Easy to customize user interface creates an environment of ownership for the end user, so Easy to customize and simple user interface could be recommended for better implementation.

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RECOMMENDATIONS Continued..

Significant issues regarding software as well as hardware could be addressed for making the system more usable, More systemic data could be made available for the fleet managers and administration staff, which are presently not available and requested by administration staff, the data like, Vehicle Idling time and halt location.

As the use of mobile technology among the end users are increasing day by day, Android and Apple mobile application could be introduced, so it could help the fleet managers track vehicles and resolve issues

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An **idea** that is not **dangerous** is unworthy of being **called** an idea at all.