Managerial Railway Research - An Outcome.

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ABSTRACT: *Indian railways plays a major role in nation building ever since its inception.Indian railways to improve its productivity besides being passenger pocket friendly.Indian railways to relieve itself off the subsidy on passenger fares and run into profits, to control rupay inflation. The paper presents such numerous avenues in Indian railways research.*
KEYWORDS: *railway, employees, below poverty line*

I.   INTRODUCTION AND LITERATURE SURVEY:

James Watt invented the steam engine [1]. Watt's early experiments included comparing the time taken for water evaporation. The first method was to pour water in bulk in a pan. The second method was to deliver the same quantity of water a drop at a time, allowing the drop to evaporate before the next was added. Both the methods took same time of twenty minutes for evaporation [1].Watt concluded that the water evaporation rate varied not with the surface area or quantity of water, but simply with the quantity of heat that enters water[1].The number of railways stations across india are to the number 7321 [2]. The originating passengers are 8439 millions [2]. Regular employees in indian railways are 1227 thousands [2]. Total number of coaches in indian railways are 74,003 [2]. GSM has 99.5 percent probability of correct message reception, and a maximum transmission delay of 10 seconds [3]. Each A4 size copy paper consumes four to nineteen liters water in its manufacture [4]. The water footprint of a product is the amount of freshwater needed to produce it [4]. Water footprint (viz. green, blue and grey components) of paper could be reduced by choosing more water-efficient wood types [4]. Annually, recovered paper saves a global water footprint of forty percent [4].

II.   METHODOLOGY AND DISCUSSION:

a)   Softcopy railway timetable
b)   Sleeper and air-conditioned, only two types of passenger coaches
c)   Sleeper berths made of recycled plastic fiber instead of cushions
d)   Sleeper coaches to have one bathroom in every four toilets
e)   Zero subsidy
f)   Prefer air travel to first ac
g)   BPL passengers travel on zero fare
h)   Railways to implement leave management system software
i)   Salary slips generated online to employees email
j)   Railway employees encouraged to do software certifications
k)   Railway engineers to get paid leave for research programs
l)   Tickets at railway counters in SMS
m)   Solar panels in sleeper coaches
n)   Defence to pay full charges

Hardcopy railway timetable could be dis-continued. Passengers could check trains list online. Softcopy timetables could be made available to passengers upon nominal charges. However, the timetable is already freely available in softcopy, upon specific search criteria.

All varieties of trains to be merged into either sleeper or air-conditioned trains. The train will be entirely of sleeper coaches or entirely of AC coaches. This doubles the number of trains on each route, demanding more track utilization. Thus, the first-ac and second-ac coaches to be replaced with third-ac coaches, thus increasing the passenger head count. This eliminates the need to revise the railway timetable in its entirety. The sleeper coaches to be made of recycled plastic fiber instead of cushions.These sleeper coaches berths to be synonymous to pillows made of recycled plastic foam or fibers. The sleeper coaches toilets to have one bathroom in every four toilets. The bathroom will reduce passenger rush at civic amenities in railway stations of metro cities.

Subsidy in railway fare to be waived off entirely in AC coaches. The logic here is that passengers habituated to AC only opt AC coaches. These passengers don't ask for any subsidy in monthly household electricity bills. Thus, these passengers could afford zero subsidy on any occasional AC journeys.

Let the wealthy prefer air journey to first AC. It saves time and is more comfortable at the same price. Below poverty line people could travel in railways on zero fare.

Railways to implement leave management system online instead of hardcopy. This saves paper and is huge passive revenue to Indian railways. Monthly salary slips could be emailed from the railways technology server, to save paper. It increases the utilization of existing railway IT services.

Railway employees need to do software certifications for career growth and competitive capacity building. Railway employees to get paid leave for research programs at railway research center, IIT kharagpur. For the purpose, railways to prefer masters degree to bachelors degree in employment.

The free wi-fi in all railway stations enables SMS facility. Thus, railways could SMS tickets sold at the counter. This saves paper. India operates 108 crore mobile phones.
Sleeper coaches lights could be solar electrified. The solar panel should be able to work in any randomized direction as it does in space.

Indian armed forces to pay full charges for services utilized. However, Defense services to be a priority customer of railways, except in case of national emergency.

III. CONCLUSION:

Indian railways, a major resource for Indian economy to unburden itself besides being passenger pocket friendly. Railway employees to continuously improve qualification for capacity building.Indian railways should adopt the latest management practices and corporate work attitude to enhance productivity. Indian railways when embed latest and current trends in technology like solar energy, Indian railways would profit without increasing costs. The subsidy given on the passenger journey fare could relieved by the measures said in the article. Indian railways could be a major player in controlling rupay inflation.

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