



Exploring the challenges of smart city creation through an understanding of citizens' participation: The case of Jalandhar city, Punjab

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Abstract

A Smart City has no exact definition. Different countries have different meaning of smart cities. Within a country, different cities have different meaning of smart cities. The meaning depends upon the people who live in that city. Therefore the understanding of citizens participation is important. A Smart city is just an imagination in India right now. It is not a reality yet. Therefore Smart cities will have to be created through updating of previous or old cities. They are not new cities. Thus, the people of that city must participate in the re-creation of old cities into smart cities. In India there are some cities, which have been selected to become smart cities. In the state of Punjab there are two cities which are selected to become smart cities, Ludhiana and Jalandhar. For the re-creation of old cities, naturally there will be so many challenges to be faced. The purpose of this research is to explore the challenges of smart city creation through an understanding of citizens participation. The objectives of this research is to study the challenges faced during the re-creation of Jalandhar city into smart city and to study the citizen participation in the process of smart city creation with respect to Jalandhar city.

Keywords: smart city, challenges, citizen's participation, digitalisation, Jalandhar

Introduction

A Smart City has no exact definition. Different countries have different meaning of smart cities. Within a country, different cities have different meaning of smart cities. The meaning depends upon the people who live in that city. Therefore the understanding of citizens participation is important. A Smart city is just an imagination in India right now. It is not a reality yet. Therefore Smart cities will have to be created through updating of previous or old cities. They are not new cities. Thus, the people of that city must participate in the re-creation of old cities into smart cities. In India there are some cities, which have been selected to become smart cities. In the state of Punjab there are two cities which are selected to become smart cities, Ludhiana and Jalandhar. For the re-creation of old cities, naturally there will be so many challenges to be faced. The purpose of this research is to explore the challenges of smart city creation through an understanding of citizens participation.

Statement of problem

While analyzing the success of Smart City Projects in various developed and developing countries, several barriers and challenges were observed. These challenges are ranged from economic and technological to social and regulatory, which are typical for any other project. But there are some specific challenges, considering the innovative and complex character of Smart City, of which citizens' participation is a very important one.

Study area

Jalandhar is earlier known as Jullundur in British India.

Jalandhar city is a city in the Doaba locale of the north western Indian territory of Punjab. Jalandhar is the most seasoned city in the Indian province of Punjab and is one of the most seasoned in the nation. Lately the city has experienced quick urbanization and has formed into an exceedingly industrialized focus of business. Jalandhar has been shortlisted for the second period of the savvy city activity of the Indian Government.

Literature review

In excess of 50 percent of the total populace lives in urban areas (UN, 2011) and city governments confront an extensive variety of difficulties: they have to deliver riches and advancement yet in addition wellbeing and maintainability. Urban areas are to be green and safe yet additionally socially energetic (Landry, 2006) [6]. Over this, urban areas should have the capacity to incorporate developing populaces from various (ethnic, religious, financial) foundations. As of late, Barber (2013) [2] has contended that city government is urgent to tackling worldwide issues and expresses that 'chairmen lead the world'. The current managerial accentuation on urban communities as administration focuses has been paralleled by scholarly consideration. Urban administration has formed into a develop scholastic field (Pierre, 1999, 2011) [9, 10] in any case, more as of late, this train is being associated with disciplines that attention on innovation and advancement. E-government and advancement contemplates are being associated with urban administration to create approaches that can make urban communities more quick witted (Nam and Pardo, 2011) [7].

While Richard Florida's (2002) work about innovative urban

areas stresses the worldwide rivalry between urban communities, Charles Landry (2006) ^[6] features that nearby lawmakers and city directors ought not to endeavour to be the best city on the planet however for the world. Making urban areas quicker witted is something that no one can be against on the off chance that it brings about more powerful answers for an expansive scope of societal issues. Shrewd innovations, keen cooperation, an exceedingly instructed populace and successful foundations are contended to be expected to confront the difficulties of present day urban communities. This talk about savvy urban areas is quickly spreading the world over. The possibility that urban communities are the core of financial improvement is across the board and, for representing the city, this implies city government officials and executives ought not plan to take care of the considerable number of issues in the city yet rather they ought to reinforce the limit of urban frameworks to handle a wide assortment of issues and create an extensive variety of open qualities (Landry, 2006) ^[6].

Objectives

1. To study the challenges faced during the re-creation of Jalandhar city into smart city.
2. To study the citizen participation in the process of smart city creation with respect to Jalandhar city, Punjab.

Data base and methodology

The investigation is for the most part in view of the gathering of optional information. The optional information was gathered from different wellsprings of distributions, for example, Magazines, diaries, Research articles, Internet and distributed and unpublished records of statistics of Govt. of India.

Challenges in smart city creation

'Urban areas are the primary shafts of human and monetary movement. They hold the possibility to make collaborations enabling awesome improvement chances to their occupants. In any case, they likewise produce an extensive variety of issues that can be hard to handle as they develop in size and many-sided quality. Urban communities are likewise the spots where disparities are more grounded and, on the off chance that they are not appropriately dealt with, their antagonistic impacts can outperform the constructive ones' (Monzon, 2015; 17p). The issues are come in nation's individuals amid the entertainment of urban communities

Challenges faced by officials

There are so many challenges which are faced during recreation of Jalandhar city by MCJ into a smart city. The rapid growth of population has placed a stress on physical infrastructure in Jalandhar like Social Infrastructure and Institutional Infrastructure because all these 3 major areas already suffer from problems. Jalandhar Smart city could be a possible solution to all these problems. Smart city is mainly concerned with smart governance, smart energy, smart environment, smart people, smart transportation, smart IT and communications, smart buildings and smart living at large. Smart is not just about technology, but also about power, water, transportation, solid waste management and sanitation.

Jalandhar smart city. Creation of a smart city involves the redevelopment and additions made to the existing infrastructure of the cities, same is the case with Jalandhar and that is why it is most obvious that many challenges will be faced and as a result it is extremely important to understand these challenges. Though Jalandhar has not become a smart city already, it is in the process of becoming one and that is why it is probably not fair to criticise the project right from the beginning. This research is not even trying to do that. However, it is important to understand the problems that Jalandhar is likely to face or is already facing in this regard. As a result, this chapter basically tries to understand the challenges or the difficulties which the government officials are facing at the moment and which they may face more intensely later.

After talking to government officials associated with smart city project in the Jalandhar Municipal Corporation, the following challenges were identified. The first challenge is obviously, as expected in terms of money or budget because all smart solutions are very expensive ones. After budgetary challenges, I have discussed political challenges and then the social challenges, which have been dealt in detail.

Development scenario

As Jalandhar has figured in the third rundown of 'smart urban communities' under the Center's leader conspire, an investigation of the plans uncover that out of the visualized venture worth over ₹ 1,984 crores, around ₹ 1,519 crores (77%) would be spent on zone based advancement (ABD) making 1,010 sections of land territory 'real brilliant.' More than 55% of the population of Jalandhar took an interest in native meeting process from April 2016 and 66% of them voted setting up sports center point as Jalandhar's best need. The territory has 8,023 families which makes around 4% of the aggregate families in Jalandhar city, which as indicated by official evaluations has more than two lakh family units. This zone is around Burlton Park, 63 sections of land of which are in control of Jalandhar city organization. This would be created as games center of Jalandhar while likewise making it a natural living and recreational space.

Further, ₹ 465 crores (23%) would be spent on container city advancement to make rest of Jalandhar savvy by giving a midway controlled open transport framework with continuous traveller data framework on transports; integrated open utility and open safe PR ty framework including checking of water supply and sewerage framework with sensors, survey spear through cameras and road lights over the city.

Recent developments

However to understand the inside hugeness of Smart-City. Nevertheless, OJECT there can be two or three budgetary glitches in like manner as the state government would need to contribute with a huge offer. Jalandhar isn't totally secured with storm water leakage to exhaust out rain water. It is flown into the sewer system suggested for exhausting out unsanitary water. In the ABD proposals, storm water sewer would be laid in the entire zone and water restoring systems have also been imagined. The treated water from sewage treatment plant (STP) would in like manner be reused.

The vision explanation for Jalandhar as splendid city might be

"to create and extend Jalandhar's gathering based economy, sports culture and existing social structure, support a culture of business undertaking, and make far reaching spots for living, preoccupation and unwinding ensuring that Jalandhar is a strong and beneficial city to live, work and play".

Extra Resources for financing Smart Cities incorporates around rupees five hundred crores from the Government of India, open securities, client charges, metropolitan securities and so on the thought is to include natives even in budgetary interest.

Budgetary challenges

As detailed in one of the main daily papers of the zone, The Tribune, it has been accounted for that the Municipal Corporation of Jalandhar having spending plan of ₹ 544.79 crore in 2017. The community body is hoping to gain around ₹ 534.40 crore as wage, it has likewise spared ₹ 10.39 crore from the present money related year. Furthermore, the aggregate gauges, the municipal body is relied upon to spend ₹ 189.10 crore on foundation consumptions, ₹ 24.22 crore on arranged and ₹ 323.85 crore on advancement works. This year, the MC was anticipated to spend ₹ 537.16 crore and to spare around ₹ 7.62 crore at the budgetary year end. Out of the ₹ 537.16 crore, the MC is relied upon to spend ₹ 23 crore on fitting and keeping up the streetlights in the city. The municipal body has intended to introduce 400 new streetlight focuses to add further to the 1,900 current focuses in the city. Additionally, it is intending to spend ₹ 30 crore on the establishment of new tube-wells. The MC has kept ₹ 1.25 crore for the urban surveys to be held not long from now.

The general population figure is likewise expected to offer its territory worth ₹ 21.48 crore arranged in Jansher town, Basti Bawa Khel, Paragpur, Dhanowaali, Lamma Pind, Dakoha and ChakJindaan. While the city body, which has as of late got the city's name joined in the keen city list, bombed in enhancing the obligations in a standard of the segments, it has set the recover targets significantly higher than a year ago. While the VAT recover for the present business year was just ₹ 118.84 crore until the point when December a year ago, the community body is hoping to recoup another ₹ 411.55 crore by March 31 this year and has set the objective of ₹ 175 crore for the following financial year. In the building delicate charge as well, the subdivision misses the mark in recovery and just recuperated ₹ 4 crore till December a year ago. In any case, hoping to recuperate ₹ 66 lakh, the MC has again set the objective of ₹ 4 crore in the following business year.

Political challenges

The officials also reported having faced political pressures and vote bank related issues. The political alignment of municipal officials also matter. However, the project is centrally controlled. Therefore, political pressures are less relatively.

Social challenges

In the field of social challenges, the most important problem is the unawareness of the common people. There is very less interest and participation from citizen's side despite the government making efforts. Also some citizens do not support the project because it will increase the land rent and that will make living and business expensive in these areas. These and

other citizen related problems will be discussed in the next chapter. The Jalandhar municipality has created a special section on citizen's participation in the website and has made special efforts to ensure citizen's participation. However, that itself has become a challenge and a very important challenge.

Conclusion

Two important challenges are faced by the MCJ, one is budget oriented and the other is social challenge in terms less citizen's participation Political challenge is either less or less reported, therefore that has not been highlighted.

Other challenges could be the given time limit, the over population, over-crowding and transportation issue and labour problems in smart city creation as informed during field survey.

Citizen's participation scenario

In Jalandhar, individuals can think about claim shrewd city with the assistance of authority site of Jalandhar. This rate is demonstrate the less digitization of Jalandhar and furthermore demonstrate the attention to national in digitization among less individuals. A keen city depends, among others, on an accumulation of savvy registering advancements connected to basic foundation parts and administrations. Brilliant figuring alludes to "another age of incorporated equipment, programming, and system innovations that furnish IT frameworks with ongoing consciousness of this present reality and progressed examination to enable individuals to make more shrewd and mindful. ICTs are key drivers of brilliant city activities. The reconciliation of ICT with improvement undertakings can change the urban scene of a city and offer various potential open doors they can upgrade the administration and working of a city (Hafedh Chourabi Université Laval, Canada)

Individuals are thought about the budgetary data of Jalandhar brilliant city. From the study, 20% natives of Jalandhar are know the financial plan of Jalandhar. What's more, the rest 80% individuals don't think about the financial plan of diversion of Jalandhar savvy city. Savvy Cities is good to go to end up the most-prominent task in everywhere throughout the nation. It was discovered that they are predominantly youngsters, females, individuals living in PAP Chowk, taught individuals and individuals who with less length of remain in the city.

In this undertaking the amusement of Jalandhar into savvy city, 23.3% individuals are taking an interest in the diversion of Jalandhar. Also, 76.7% individuals are not taking an interest. Each table having own detail like age astute, sex shrewd, area insightful, training savvy and term shrewd which again demonstrates that lone particular individuals are taking an interest.

Individuals of Jalandhar get data about the amusement of brilliant city. They counsel by city company of Jalandhar. From the information of review just 6.7% subject are counseled by MCJ and 93.3% individuals are not counseled by MCJ. Every one of the tables of information like age savvy, sex astute, training insightful, area shrewd and term astute are demonstrate their own points of interest.

As an analyst and a native myself, I believe that if the Municipal Corporation counsels the nationals, at that point

their investment and contribution will increment.

Suggestions for improvement

1. MCJ should do make citizens aware.
2. MCJ should consult citizens
3. MCJ should find out people's problems and increase resources.
4. Citizens need to be more aware and actively participate
5. There should be good government-citizen interaction.

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