**DATA ANALYTICS WITH COGNOS**

**Project Title: Marginal workers assessment in TN socio economic analysis**

**Phase 2: Consider conducting clustering analysis to identify patterns among different industrial categories and age groups.**

***PHASE 2: INNOVATION***

**Consider conducting clustering analysis to identify patterns among different industrial categories and age groups.**

Marginal workers are those whose employment is insecure, poorly paid, and unprotected. They often work in informal sectors such as construction, agriculture, and domestic work. Marginal workers are vulnerable to exploitation and abuse, and they often lack access to social security benefits.

***Major problems with assessing marginal workers in Tamil Nadu:***

**Lack of data**: There is no comprehensive database of marginal workers in Tamil Nadu. This makes it difficult to assess their numbers, characteristics, and needs.

**Complexity of informal sector:** The informal sector is complex and dynamic, making it difficult to track and monitor marginal workers

***Multiple definitions:*** *There is no single, universally accepted definition of a marginal worker. This can lead to inconsistencies in data collection and analysis****.***

***Stigma:*** *Marginal workers often face stigma and discrimination. This can make them reluctant to participate in surveys and other data collection activities.*

***How cluster analysis can be used to solve this problem***

*Cluster analysis is a statistical technique that can be used to group data points into clusters based on their similarities. This can be used to identify groups of marginal workers with similar characteristics, such as age, gender, education level, and type of work.*

*To use cluster analysis to assess marginal workers in Tamil Nadu, the following steps could be taken*

*1.Collect data on marginal workers, including their age, gender, education level, type of work, and location.*

*2.Use cluster analysis to identify groups of marginal workers with similar characteristics.*

*3.Analyze identify the major problems faced by marginal workers in each group.the characteristics of each cluster to*

*4.Develop targeted interventions to address the problems faced by each cluster of marginal workers*

***For example, cluster analysis could be used to identify the following groups of marginal workers:***

* *Young, female workers in the garment industry*
* *Older, male workers in the construction industry*
* *Transgender workers in the beauty industry*
* *Migrant workers in the agricultural sector*

*Once these groups have been identified, targeted interventions can be developed to address the specific problems faced by each group. For example, the government could provide vocational training to young, female workers in the garment industry to help them find better jobs. The government could also provide social security benefits to older, male workers in the construction industry.*

*Cluster analysis can be a valuable tool for assessing marginal workers in Tamil Nadu and developing targeted interventions to address their problems.*

***Here are some specific examples of how cluster analysis can be used to assess and address the problems faced by marginal workers in Tamil Nadu :***

* *Cluster analysis can be used to identify groups of marginal workers who are at risk of exploitation and abuse. Once these groups have been identified, targeted interventions can be developed to protect them. For example, the government could provide legal aid to marginal workers who have been exploited or abused.*
* *Cluster analysis can be used to identify groups of marginal workers who lack access to social security benefits. Once these groups have been identified, targeted interventions can be developed to provide them with access to these benefits. For example, the government could provide health insurance and pension benefits to marginal workers.*
* *Cluster analysis can be used to identify groups of marginal workers who need vocational training. Once these groups have been identified, targeted vocational training programs can be developed to help them find better jobs. For example, the government could provide vocational training in garment making to young, female workers in the informal sector*

*By using cluster analysis to assess marginal workers in Tamil Nadu, the government and other stakeholders can develop more effective and targeted interventions to address their problems.*

*Teammates:*

* *M KEERTHIGA*
* *S RANJITHA*
* *K VASUKI*
* *K KAYALVIZHI*