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**PROJECT TITLE: AUTO RESPONSE OF THE CLOTH DRYING CLIPS**

**\*\*The idea is to describe about the Auto response of the cloth drying**

**DIMENSIONS IN THE AREA:**

People in the modern era are busy with their daily life schedules and they need to balance every work in their day-to-day life

People need to wash the cloths and dry after the washing after washing after the long time they need to check whether the cloth are dried or not if not, they have to go once more, so this makes them to waste their time in the part of their schedule.

1. Auto response of the cloth drying clips by the registered mobile number, the **people** at home get the message after the cloths dries.
2. This Idea not only applicable in the villages but also everywhere in the people daily life.
3. So, by this we can dry our cloths at any picnic places and many more places because the work totally done by the sensors, the only thing we have to do is when we get the message, we have to collect our clothes where we have dried.
4. This Idea is most helpful in the rainy and the summer season, in the villages who have out resource to dry the cloths.

#### ASPECTS OF THE PROBLEM IDENTIFIED BY ME.

- As we need to check whether the cloths are dried or not if not we have to go and check once more in which our time is wasted if we any other works.
- The major **problem** is that people always use to spend their time to remove their clothes where they dried if they are going outside of the home for long days.

\* If it is a rainy season if people forget to remove their clothes even they dried, by next rain the whole clothes are distracted and they to dry the cloths again.

1.except the problem of the cloth drying clips I saw the problems in various dimensions.

2. In each dimension I found many different problems related to the social life.

3. AS many prospective can possible in solving my area of Interest, noyt only in the one aspect we can find these types of problems but in the whole universal, so to solve these issues different techniques are used.

4. The problem which are Identified by me can reach up to solution , because the team in which we have, includes all departments which relates to this problem.

5. The main aim of this problem is that to save the time of people in which they include in their daily life schedules.

## **PARTS AND RELATIONS OF THE GIVEN PROBLEM**

### **STATEMENT**

## **PARTS**

### **1. CLIPS**

**Parts are** - As we look after the parts of the clips, we use stainless pins on the both sides of the clip. We Always prefer to choose the plastic clips which are free from the electric earthing and shocks.

### **2. ROPES**

The parts for the ropes are in the way that we have to use the synthetic or jute plant made ropes which are plastic free and help people from protecting the electricity shocks and earthing and many other electric aspects

### **3. SENSORS**

There is different type of the sensors we use in the drying of the cloths.

**They are:**

- Temperature sensors
- Thermal humidity sensors

**Temperature Sensors:**

A temperature sensor is an electronic device that measures the temperature of its environment and converts the input data into electronic data to record, monitor, or signal temperature changes. There are many different types of temperature sensors.

### **Thermal humidity sensors:**

Thermal sensors are categorized as the type that measures the AH (or absolute humidity). They are great for places with high temperature or ones that have corrosive environments. For measuring the humidity of the environment with this humidity sensor, one thermal sensor measures the ambient air while the other sensor is encased in dry nitrogen.

### **4. CLIP PROTECTOR**

It will protect the clips to not lose its sensors by heavy rains and the heavy sunlight.

## **WHY 5 TIMES?**

### **1. WHY is this project specifically about the auto response of cloth drying clips?**

In the present society the people are very irritated with their busy schedules in their daily life.

So, the main aim to take this project is, as part of their schedule this is also **(cloths drying after washing)** the work they have to do and by the time the person who is at house always need to check the cloths whether dried or not.

So, it will be irritating issue, and for that the idea that is suitable is that, **message conformation for mobile (who register for the authentication to mobile)** for the people in the home, when the cloths are dried.

## **2. WHY auto response of the cloth drying clips is useful?**

As it will reduce a little burden on the people especially in the rainy and the summer season, because people use to forget the cloths on the ropes where they dried the cloths, if the rain fall even the cloths dried, they have dried the cloths once again and it will be irritation for the people. so at that time the auto response of the cloth drying clips is very useful.

As the same situation happens in the summer but the cloths purely lose their colour and for the next to wear for the people it is unusable. So at that part of the time this idea is very useful.

## **3. WHY cloth drying clips only?**

Cloths drying clips are very easy and essential to take out from the ropes and they are helpful to children's in the home because they don't act as the good conductor of the electricity and for the earthing in any instance.

## **4. WHY they are free with the atmosphere?**

As we are using the ropes, the choice of drying the cloths at most will be the outside of houses if it is the villages and

If in the cities and town the people in the apartments will use the balcony to dry the cloths, so it doesn't contain any restriction to dry the cloths in a particular place if we use the cloth drying clips as we are keeping the clip protector which will protect the sensors.

## **5. WHY and how they will help in saving time?**

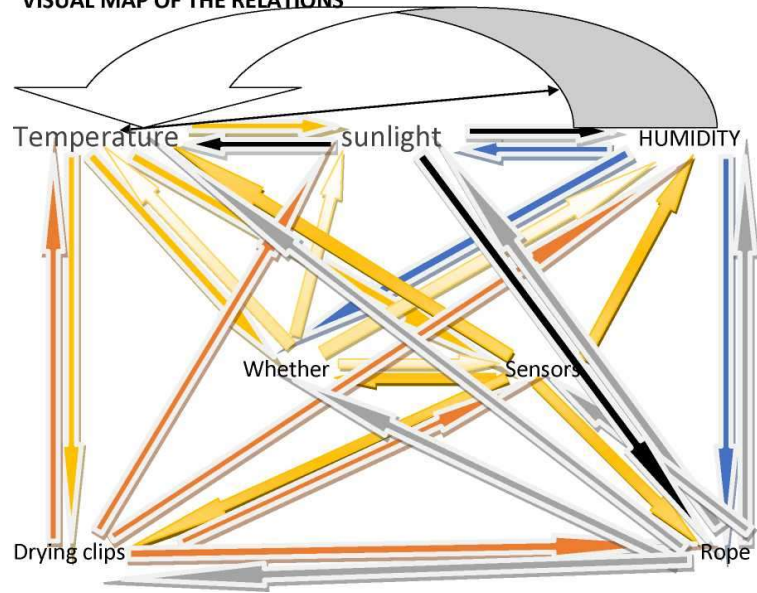
As just we will remove the cloths from the rope when we get a message to our mobile that our cloths are dried .so it helps in saving our time instead of checking every time.

To show the Relation among them we need to discover the discovery matrix.

## **DISCOVERY MATRIX**

	Humidity	Temperature.	Sunlight	Whether	Sensors	Drying clips	Rope
Humidity	x	1	1	1	0	0	1
Temperature	1	x	1	1	1	1	0
Sunlight	1	1	x	1	0	0	1
Whether	1	1	1	x	1	0	0
Sensors	1	1	0	1	x	1	1
Drying clips	1	1	1	0	1	x	1
Rope	1	1	1	1	1	1	x

VISUAL MAP OF THE RELATIONS



## SNAC CLASSIFICATION

STAKEHOLDERS	NEEDS	ALTERABLES	CONSTRAINTS
<b>Customer</b>	<ul style="list-style-type: none"> <li>&gt; Affordable services</li> <li>&gt; Self-reliable product(clips) and sensors</li> <li>&gt; No compromise with design and features of clips</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Guidelines to use the clips, sensors</li> <li>&gt; Connectivity with manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Not all requirements can be fulfilled by a company</li> <li>&gt; No steep change in price</li> </ul>
<b>Clips Manufacturers</b>	<ul style="list-style-type: none"> <li>&gt; Low effect on production cost</li> <li>&gt; No effect on sales, design</li> <li>&gt; Customer satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Tracker company</li> <li>&gt; Clip design</li> <li>&gt; Clip price</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Clip size</li> <li>&gt; Profitable deal</li> <li>&gt; Unaffected sales</li> </ul>
<b>T racker company</b>	<ul style="list-style-type: none"> <li>&gt; product</li> <li>&gt; IEasily available raw materials</li> <li>&gt; Workable and efficient to user</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Materials used</li> <li>&gt; Product design(clips and sensors)</li> <li>&gt; Working team</li> <li>&gt; Better ways of implementation</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Product design should not go in wrong hands</li> <li>&gt; Material cost</li> <li>&gt; Permanent solution</li> <li>&gt; No clarity with materials required</li> <li>&gt; Material availability</li> </ul>



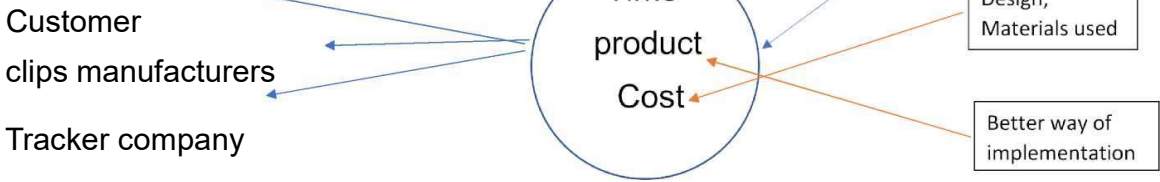
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stakeholder analysis on a product(CLIPS):

Diverse needs of stakeholders:

Customer	Self reliability
Clips manufacturers	Sales
Tracker company	Raw materials

Common needs of stakeholders :



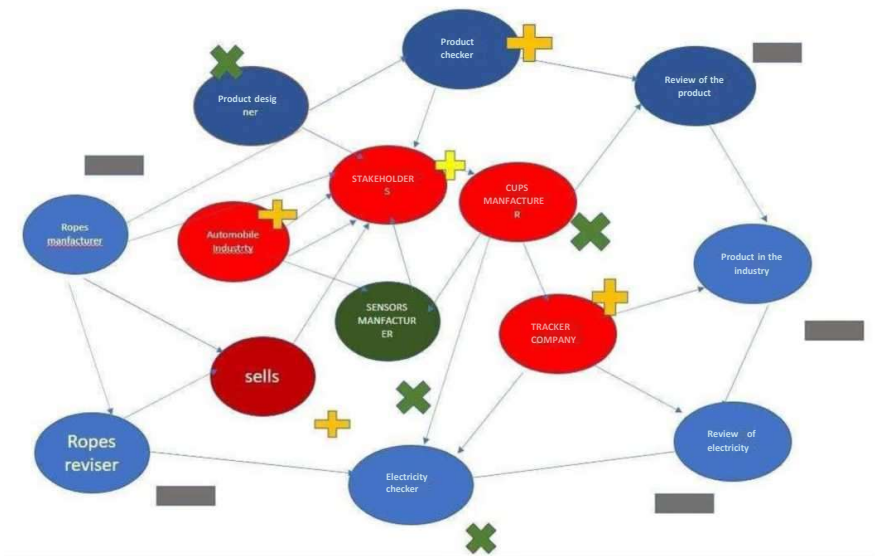
**Above** shows the common needs and respective alterables. The needs in circle are to be focused more in this context.

**Customer:** He needs the best quality of clips and sensors(product) with least price, so the addition of new product should not affect the price much. If there is a way then he should himself be able to solve his problem without any dependencies.

**Clips manufacturers:** Manufacturers need the sales and profit to remain same whatever need to be altered.

**Tracker company:** It expects to reach everyone's needs so tries to make product <sub>more</sub> efficient with less time taken. But to make good products it needs easy availability of raw materials at reasonable prices.

All feedback loops in model:



**(positive loop)**

Tracker price-:                    d sensors manufacturers-:    c ps and sensors price-:

**(negative**

Unsolved case->need      tracker->tracker company->clips manufacturer->customer-  
>clips found->demand

**(negative**

Need->tracker company->raw materials->tracker price-:      pS manufacturers->need

**Critical intervention**

Product design

Cost of production

Skilled engineers

Raw materials

## EXPECTED BEHAVIOUR OF SERVICE

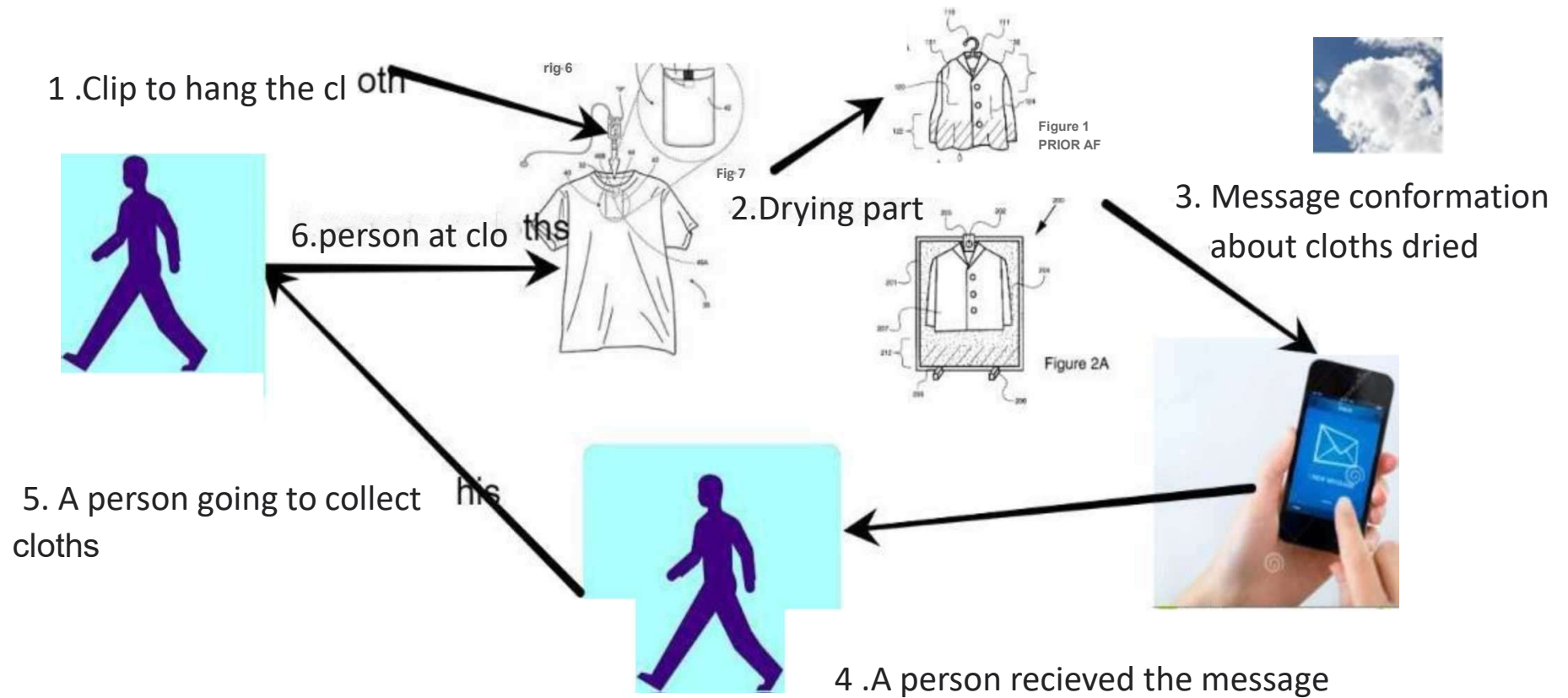
### **Clips useability/ reaction With respect to people:**

- 1 .comfortable to use for people without any distractions.
2. Available In market when the clips are needed.
3. Non shockable/non earthing clips and free to use by anybody .
4. The major aspect in the whole process is resubility of clips even though the sensors are damaged, while they are available in the market.
5. Always feasible to the mobile phones of the people, and the sensors always in the active mode.

### **Comfortness of clips with the cloth drying rope:**

As we used some technology to devolope this concept and we use many,python devoloping aspects/programms to reach the information to the mobile via message,clips will be good and knockable with rope.

## Structure of the product in graphical form



## Functions:

1. The process which is between the person mobile and sensors of clips is easy only.
2. It is easy to know the message to the person that their cloths has been dried ,as the software devolope by us is very easy in which people should understand.
3. Not much more its burden the people bare thosands of the messages everyday repeatedly,as just they get once the cloths dried.
4. The automation tool(AI) that rectify as soon as possible if any errors occurs in betwee the transfer of the messages.
5. Devolopers are always friendly with the people in which the way they need.
6. Message shows the information that, according to the tempearure they should dry their,cloths
7. people have been upadted regularly temperatures by the messages to dry theor cloths.

# Construction of ISM:

1. User friendly interfaced make users to be attracted by our service)
2. Devolopers team(a good enhanced skilled person to be with customers to devolope our service
3. customer service (further innovation and new ideas and helpful solutions will be given by us, in presence of their customer difficulty,
- 4, delivery of tiny products (to provide cofort for users)
- 5, Advertisement and marketing (to attract our service to users).
- 6, developement of our service based companyffo expand our business)



## Step-2:Adjacency Matrix

	1	2	3	4	5	6
1	1	1	1	1	1	0
2	1	1	1	0	0	0
3	0	0	0	1	0	1
4	1	0	0	1	1	0
5	1	0	1	0	0	0
6	1	0	1	1	0	1

## Adding identity matrix:

The matrix obtained after adding with an identity matrix T with adjacency matrix is,

	1	2	3	4	5	6
1	1	1	0	0	1	0
2	1	1	1	0	0	0
3	0	0	1	1	0	0
4	1	0	0	1	1	0
5	1	0	1	0	1	0
6	1	0	1	1	0	1

Identity matrix :

1	0	0	0	0	0
0	1	0	0	0	0
0	0	1	0	0	0
0	0	0	1	0	0
0	0	0	0	1	0
0	0	0	0	0	1

Now we will find  $(A+I)^2$

	1	2	3	4	5	6
1	1	1	1	0	1	0
2	1	1	1	1	1	0
3	1	0	1	1	1	0
4	1	1	1	1	1	0
5	1	1	1	1	1	0
6	1	1	1	1	1	1

This matrix is obtained by finding  $(A+I)^3$

	1	2	3	4	5	6
1	1	1	1	1	1	0
2	1	1	1	1	1	0
3	1	1	1	1	1	0
4	1	1	1	1	1	0
5	1	1	1	1	1	0
6	1	1	1	1	1	1

This matrix is obtained uniformly for any n  
 In  $(A+I)^n$  So the reachability matrix is  
 obtained at  $n=3$   
 $(A+I)^3 = (A+I)^4 = \dots (A+I)^n$  (for all n,  $n \geq 3$ )

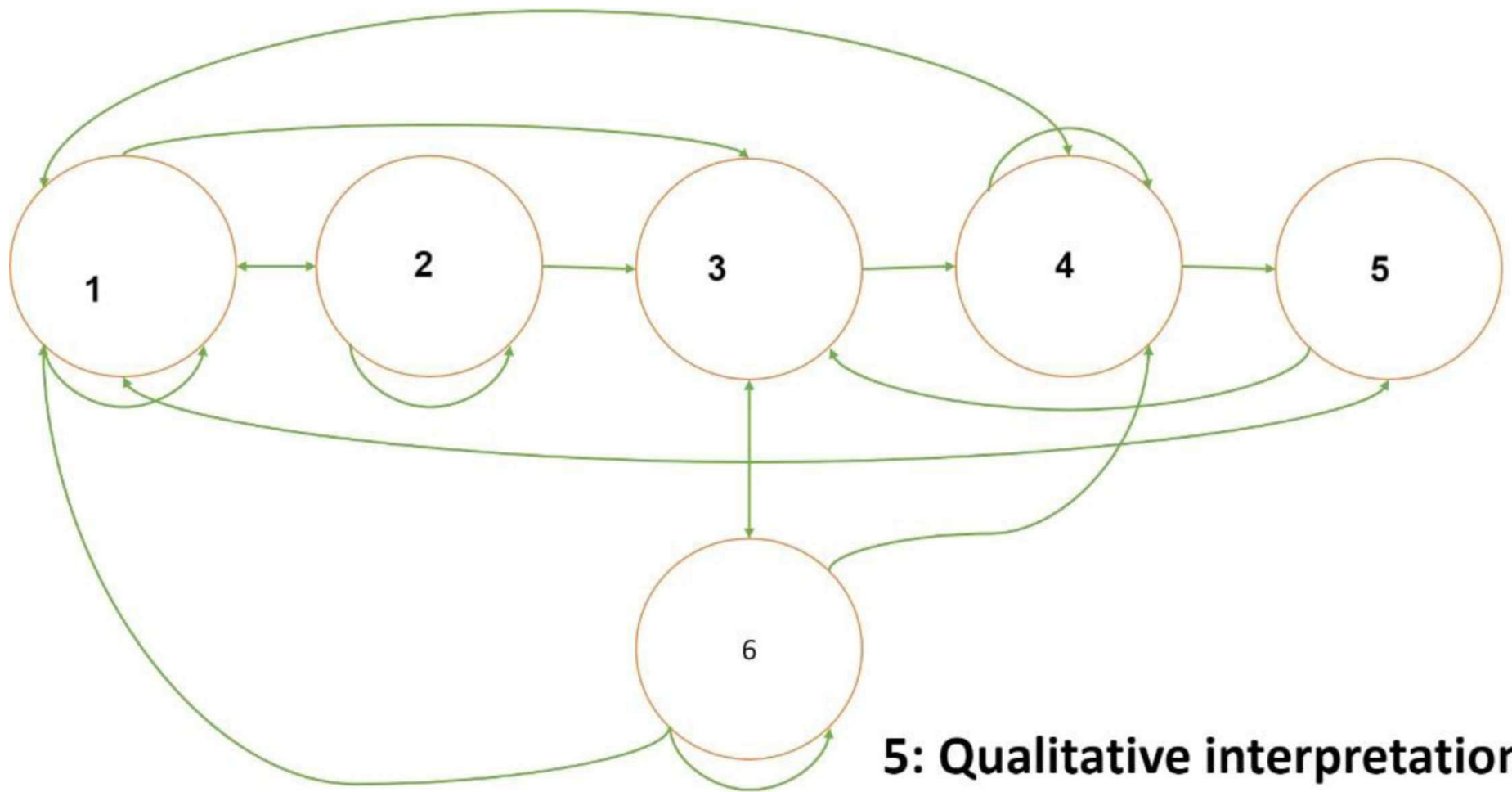
## Reachability Matrix

	1	2	3	4	5	6
1	1	1	1	1	1	0
2	1	1	1	1	1	0
3	1	1	1	1	1	0
4	1	1	1	1	1	0
5	1	1	1	1	1	0
6	1	1	1	1	1	1

At n=3

## Step-4:Identifying the hierarchical levels

	Reachability set	Antecedent set	Intersection Set	Level
1	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4,5	2
2	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4,5	2
3	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4,5	2
4	1,2,3,4,5	$U_{3,4,5,6}$	$U_{3,4,5}$	2
5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4,5	2
6	1,2,3,4,5,6	6	6	1



**5: Qualitative interpretation**

## Step-6: Interpreting the hierarchical model

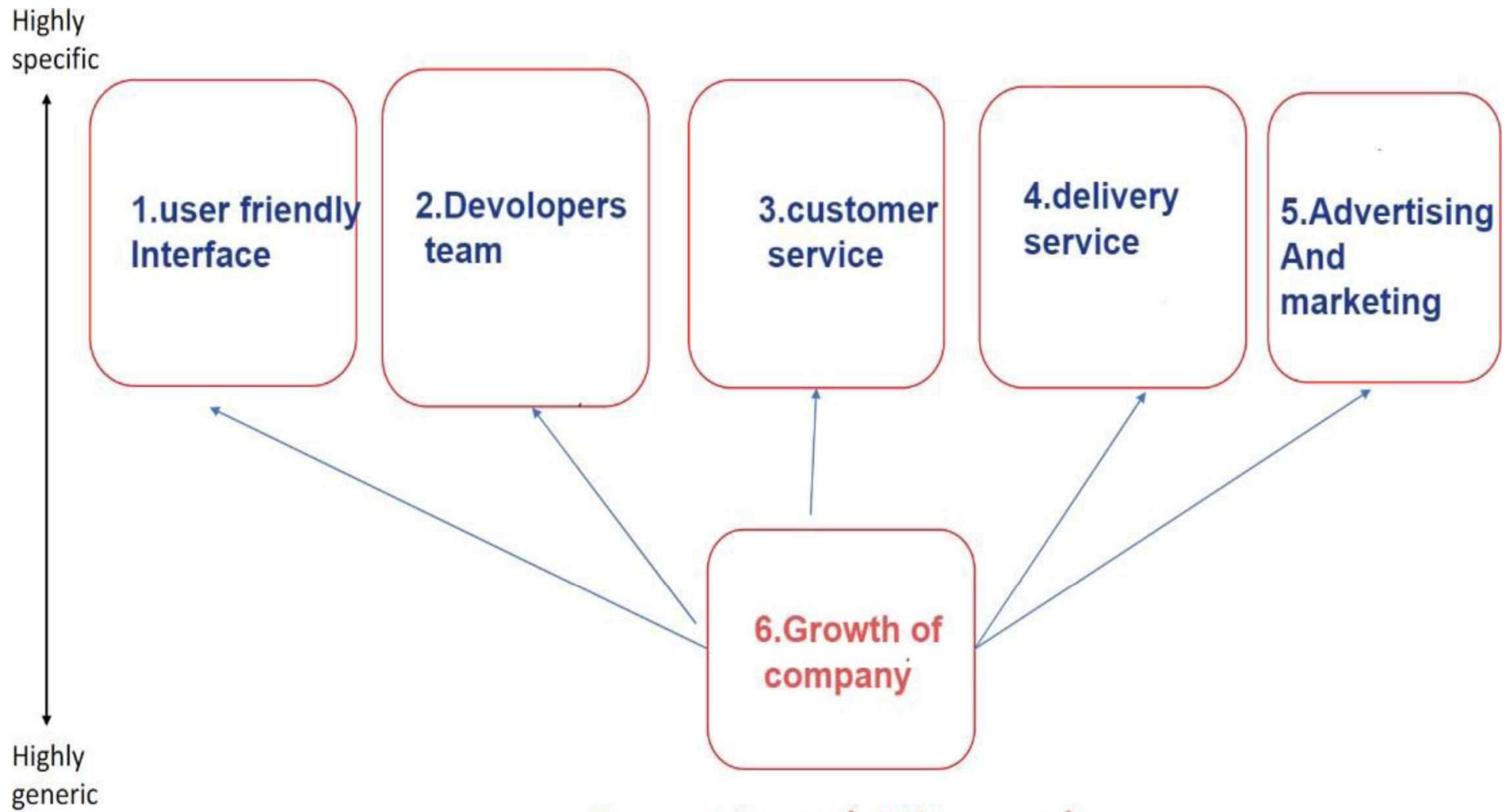
	1	2	3	4	5	6
1	1	1	1	1	1	0
2	1	1	1	1	1	0
3	1	1	1	1	1	0
4	1	1	1	1	1	0
5	1	1	1	1	1	0
6	1	1	1	1	1	1
D	6	6	6	6	6	1

In  
Degree

Degree Degree

[illegible]





## Functional Hierarchy