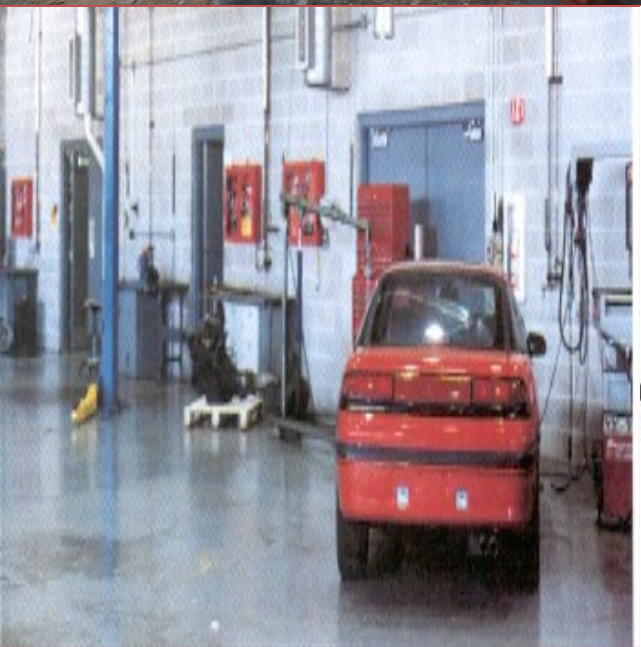
Debremarkos poly technique college\ 2008 E.C
Automotive vehicle repairing value chain analysis













Automotive vehicle repair value chain analysis

Sector:- Industrial development

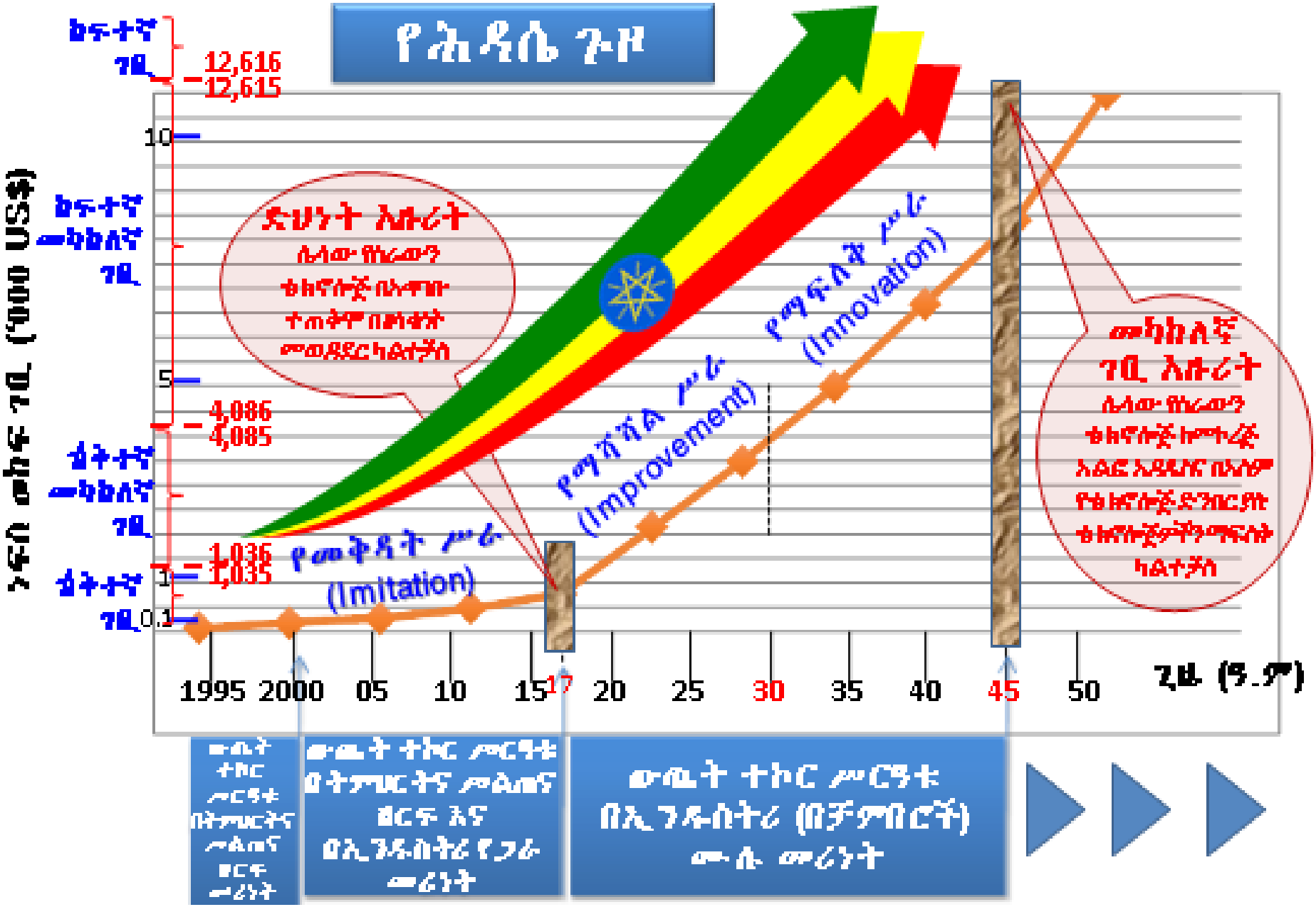
Sub sector:-Road transport

Objective

This project present quality service delivery procedures for all automotive vehicle repairing garages in accordance with standard parameters.

Specific objectives

- Evaluate service delivery on repairing work shops
- Describe how to make estimation of damage
- Explain the best vehicle repair procedures and materials
- Show application of kaizen & OHS


የሕዳሴ ጉዞ
ከፍተኛ ገቢ
ከፍተኛ መካከለኛ ገቢ
መካከለኛ ገቢ
ዝቅተኛ መካከለኛ ገቢ
ዝቅተኛ ገቢ
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12,615
4,086
4,085
1,036
1,035
10
5
1
0.1
የነፍስ ወከፍ ገቢ (‘000 US$)
ድህነት አስቡርተ
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የመቅዳት ሥራ (Imitation)
የማሻሻል ሥራ (Improvement)
የማፍለቅ ሥራ (Innovation)
መካከለኛ ገቢ አስቡርተ
ሲሳው የዜሮውን ቴክኖሎጅ ኮፒተሬ አልፎ አልፎለሀ በሌላው የቴክኖሎጅ ድንበርነት ቴክኖሎጅዎችን ማፍለቅ ካልተቻለ
1995 2000 05 10 15 17 20 25 30 35 40 45 50
ጊዜ (ዓ.ም)
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የዕድገትና ትራንስፎርሜሽን ዕቅድ ዘርፎች

1	ግብርና
1.1	ተፈጥሮ ሃብት ልማትና ጥበቃ የደን ልማትና አጠቃቀም
1.2	
2	ኢንዱስትሪ ልማት
2.1	ጨርቃ ጨርቅና አልባሳት
2.2	ቆዳና የቆዳ ውጤቶች
2.3	ስኳርና ተጓዳኝ ምርቶች
2.4	ሲሚንቶ
2.5	ብረታ ብረትና ኢንጂነሪንግ
2.6	ኬሚካል (ፋርማሲቲዩካል፣ ሀትመት፣.....)
2.7	አግሮ ኘሮሰሲንግ
3	ማዕድን
4	ኢኮኖሚ መሠረተ-ልማት
4.1	መንገድ ግንባታ
4.2	ባቡር ትራንስፖርት
4.3	መንገድ ትራንስፖርት **Automotive Vehicle repairing**
4.4	ባህር ትራንስፖርት
4.5	አየር ትራንስፖርት
4.6	ኢነርጂ
4.7	ውሃና መስኖ
4.8	ቴሌኮሙኒኬሽንና አይሲቲ
4.9	ከተማ ልማትና ህንፃ ኮ/ን
5	ንግድ
6	ጤና
7	ባህል፤ ቱሪዝምና ስፖርት
8	ማህበራዊ

FACTS

On D/markos

- Customer Vehicles are not positioned properly, could cause tire wear or unsafe vehicle handling and control conditions.
- Replacement parts are ordered manually which decrease part ordering accuracy and increase delivery time.
- Work shops are not well organized and equipped
- They did not implement kaizen.
- They did not use sst (special service tools)& mostly use human labor
- The technician does not Follow Up with the Customer

On Japan

- The work shops are well equipped and organized.
- Replacement parts are **ordered electronically** which improves part ordering accuracy and reduces delivery time.
- They make repair based on scientific procedures and customer need.
- All repairs are made based on quality standards and **manufactures recommended** repair procedures
- Handle customer vehicle in neat and safe place from entrance to delivery.
- The customer will be contacted by telephone Several days to evaluate his level of satisfaction with the repairs done,

AUTOMOTIVE : Value Chain for Automotive Vehicle re

As Is



Receiving

- Receive The vehicle From Customer

Evaluation of damage

- Inspection Visually
- Technician stand under ground
- Cost estimation
- Order the replacement part manually

disassembling

- Use mostly hand tools
- Place tools disorderly
- dismantle parts with wood ladder and rope
- Move dis assembled parts by human labor
- Place part on the floor & tables

Structural repair

- Mount the vehicle on wood ladder
- Repair by using manually operated tools
- Work on table and evacuated work shope
- Replace severely damaged parts

reassemble

- Made final inspection
- Clean the parts in Wash basin“safa”
- Assemble all removed parts

Check performance of the vehicle

- check by Start the engine &drive the vehicle/road test
- clean the vehicle
  - hand

delivery

- Return the vehicle to the customer

- The vehicles are parked Out side
- There is no well organized work shop

AUTOMOTIVE : Value Chain for vehicle repair

Bench Mark



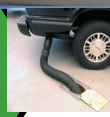






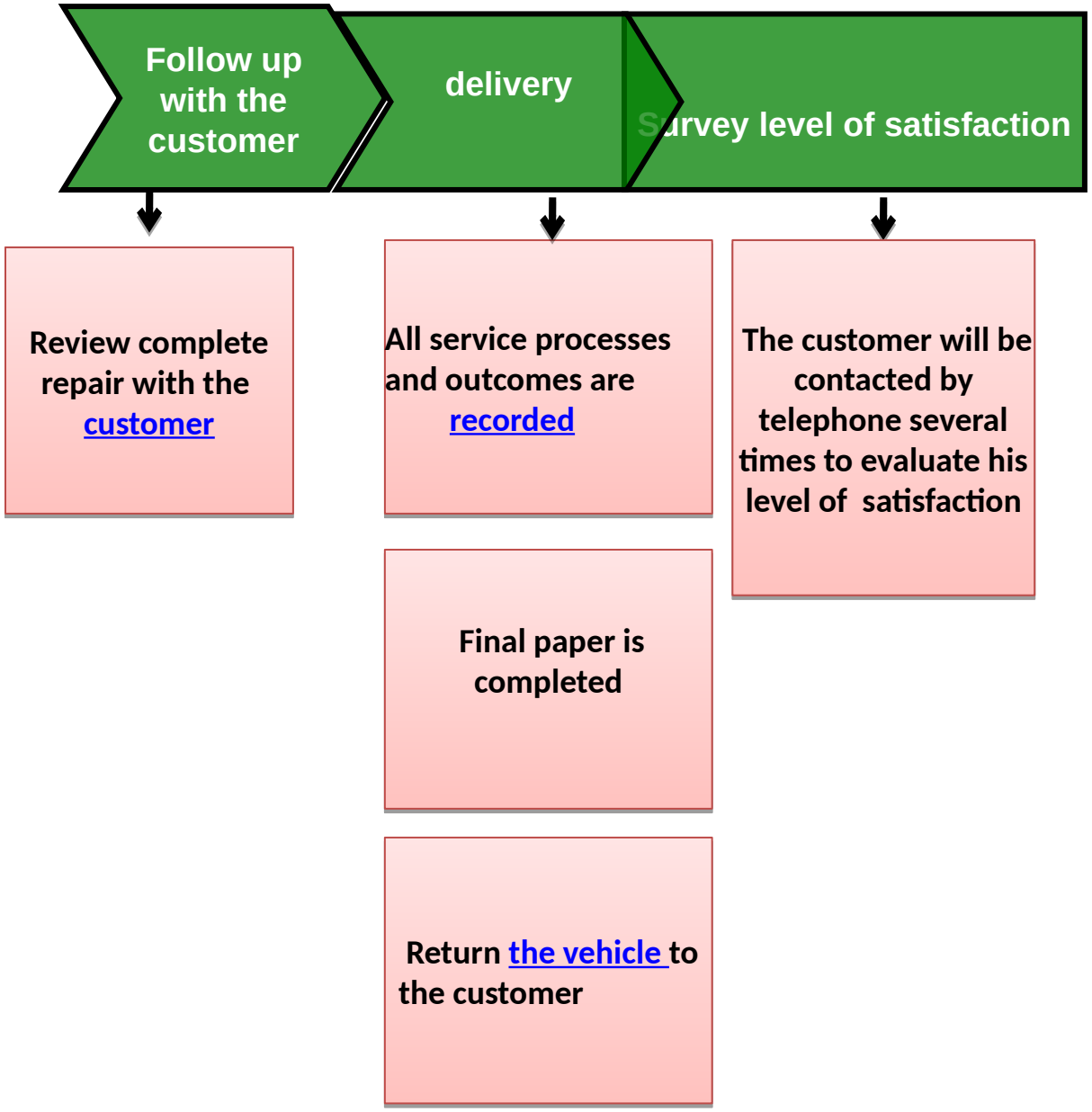






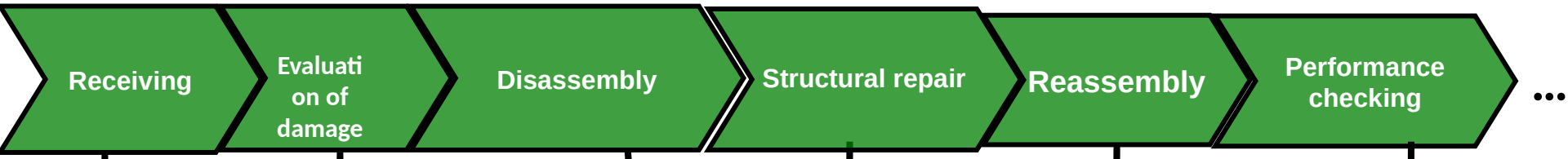
Receiving	Evaluation of damage	Disassembly	Structural repair	Reassembly	Performance checking
Documentation of vehicle history(information from customer)	Troubleshooting by using •Measuring tools •D/t testers •Gauges	Following service manual procedure and OHS	•Mount the vehicle on structural alignment machine to Return back to factory specification	Made final inspection	check original safety and performance engineering is maintained
The vehicle parked on safe and neat work shop	The vehicle is raised on a lift in their inspection area	Remove parts by using power tools • Over head crane • Hydraulic press	▪ Place the repairing part on flexible stands ▪ Follow manufactures recommended repair procedures	Clean parts Hot thank	Quality control •Final quality inspection is performed
	Ordered replacement parts electronically for: ▪ Accuracy part ordering ▪ Reduces delivery time	•Use caring wheels •Place the parts orderly on neat place	▪ Use the Right Tool for the Job ▪ Use computer measuring system for assure accurate structural repair	Locate parts precisely	
				Perform tests on ventilated work shop	

Cont…


Follow up with the customer
delivery
Survey level of satisfaction
Review complete repair with the customer
All service processes and outcomes are recorded
Final paper is completed
Return the vehicle to the customer
The customer will be contacted by telephone several times to evaluate his level of satisfaction

AUTOMOTIVE : Value Chain for automotive vehicle repairing

gap



Documentation of vehicle history(information from customer)

The vehicle parked on safe and neat work shop

Troubleshooting by using
•Measuring tools
•D/t testers
•Gauges

The vehicle is raised on a lift in their inspection area

Ordered replacement parts electronically for:
- Accuracy part ordering
- Reduces delivery time

Following service manual procedure

Remove parts by using power tools
• Over head crane
• Hydraulic press

•Use caring wheels
•Place the parts orderly on neat place

•Mount the vehicle on structural alignment machine to Return back to factory specification

- Place the repairing part on flexible stands
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Made final inspection

Clean parts Hot thank

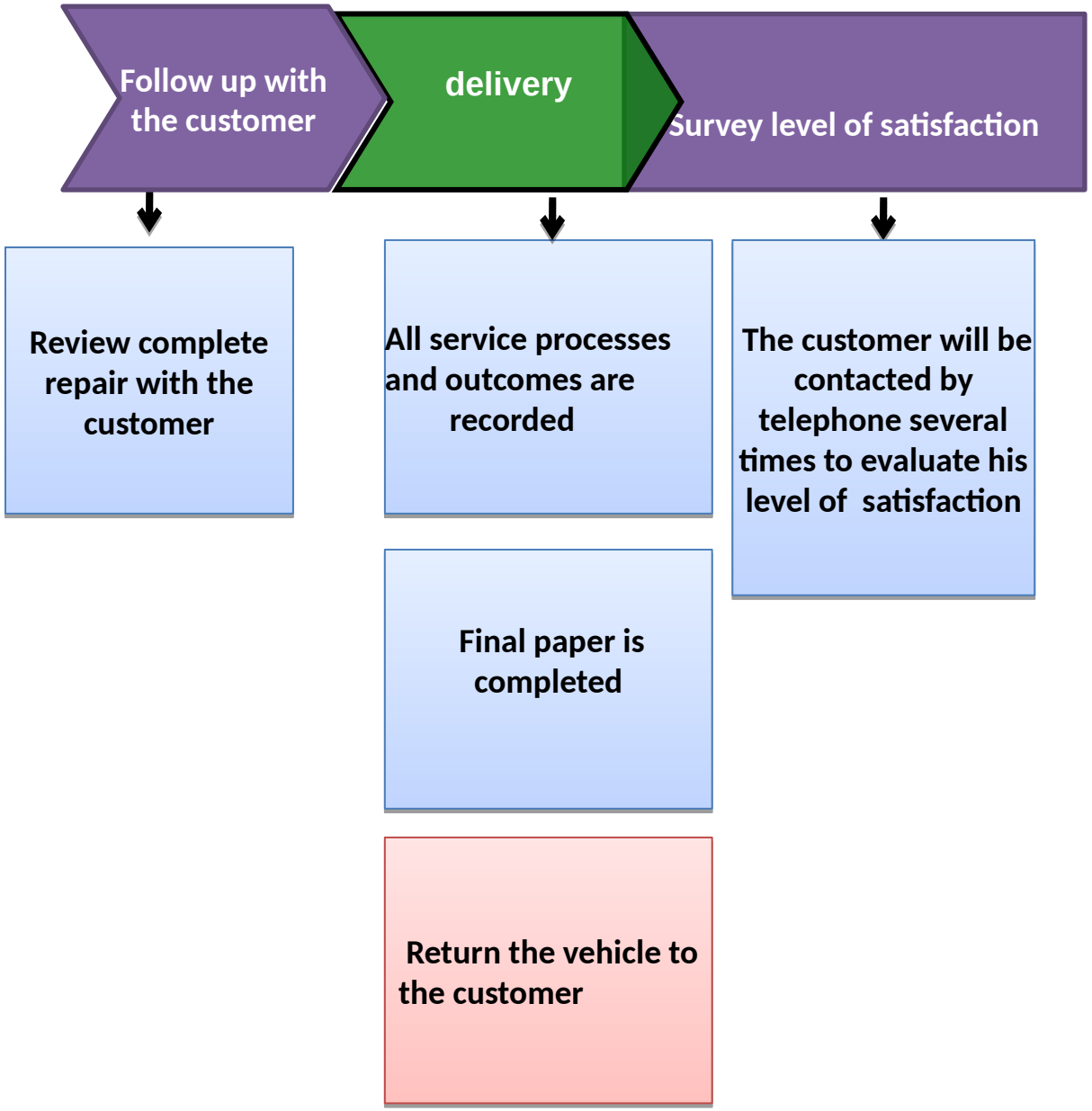
Locate parts precisely

Perform tests on ventilated work shop

check original safety and performance engineering is maintained

Quality control
•Final quality inspection is performed

Cont…


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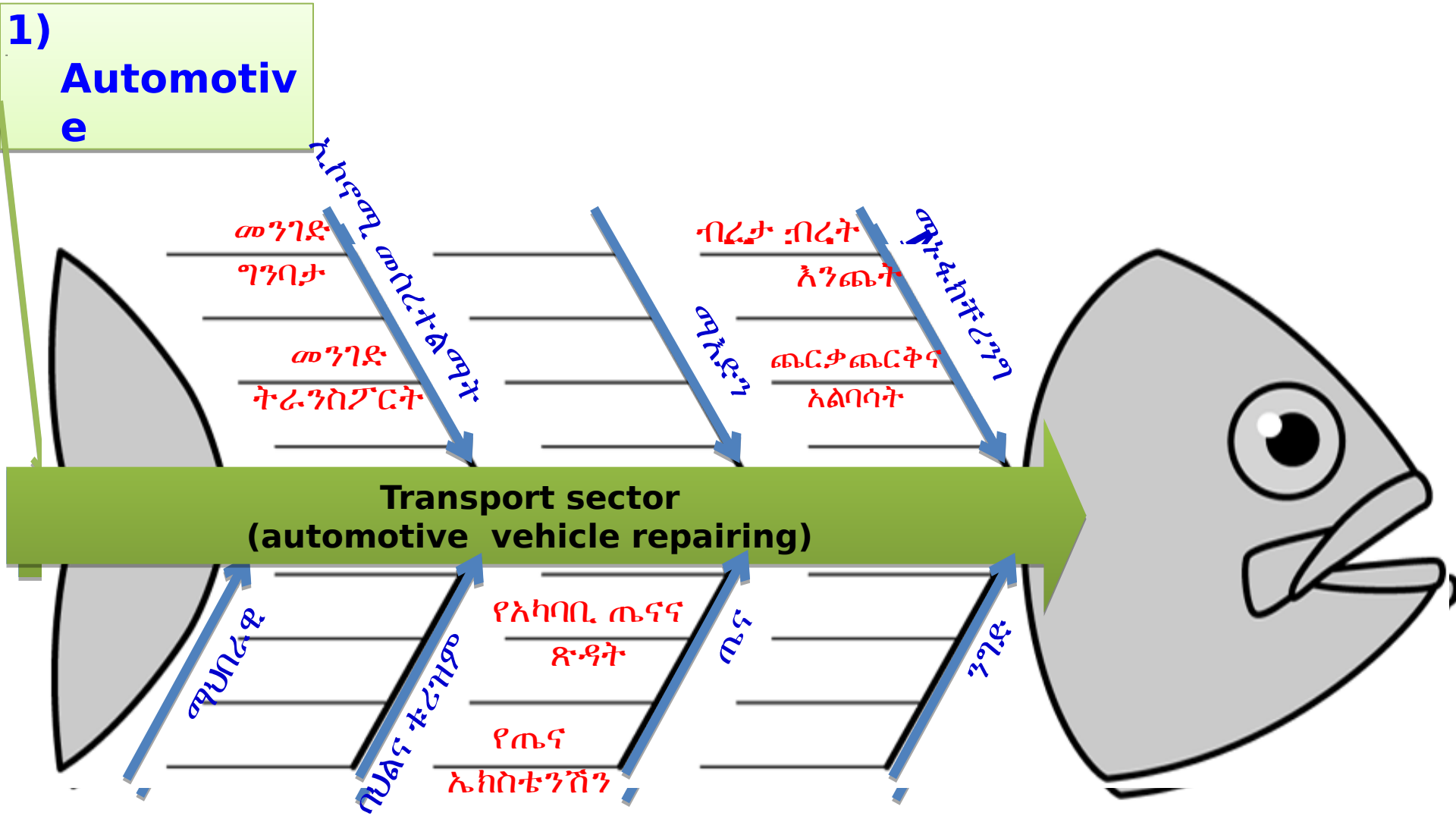
AUTOMOTIVE : Value Chain For vehicle repair

(Selected Technology)

Techno-ware	Human-ware	Info-ware	Orga-ware
•Vehicle structural aligning machine •Hydraulic lifter •Overhead crane •Engine dynamo meter	• structural aligning and lifting Techniques /Competency(-repairing vehicle) •Occupational health and safety /Knowledge and skill About aligning Machine-(applying occupational health and safety) •Engine analyzer and measuring techniques	•vehicle repairing manual •Vehicle operating manual •Engine service manual	•vehicle repairing work shop •Reception And Store Room •Organized Engine repairing work shop

የእሴት ሰንሰለቶች ተመጋጋቢነት ከትኩረት ዘርፎች አኳያ

1) Automotive



AUTOMOTIVE : Value Chain For vehicle

The changes that come from bench marking

R. N	Indicators	Measurements	Bench Marks	As Is
1	Fast repairing techniques/reduce delivery time	Vehicle /day	5 days(reduce delivery)	2 week(longer delivery time)
2	High Customers Need	Safety	Use Special service Tools	Manually operated hand tools
3	Increase Skills For The Person	Ability	Skill Full Ability	Unskilled Man Power
4	Save Human Power & Increase Service	Person /vehicle	2p/vehicle	5P/v
5	Quality Servicing	Service Styles	High Quality Service	poor Quality Service

N	Outputs	Outcomes	Impact
1	All repairs are made based on quality standards	Higher customer needs	Increase market linkages
2	Make repair based on scientific procedures and manufacturer specification	Attractive service	
3	Higher job opportunity	Create job	Reduced jobless man powers
4	Quality service	Attract	Increase market linkages

Evaluation of the value chain analysis

- There are a lot of unorganized repairing garages in d/markos
- Poor Vehicle repairing techniques in our country
- unsatisfactory costumer service

Constraints contributing to these facts are:

- ❖ Inadequate technological inputs
- ❖ Lack of skilled man power on repair technique
- ❖ Absence of training and working place
- ❖ Poor marketing network

Planning

- **This project was Copied from Internet /already imported from Japan company.**
- **We have a plan to apply and give training for all vehicle repairing technicians in and near D/markos town.**

Identified technologies and respective sector responsibility

Techno ware	Respective sectors
•**Vehicle structural aligning machine**	Industrial development (Metal engineering)
•**Hydraulic lifter**	Industrial development (Metal engineering)
•**Engine dynamo meter**	Industrial development (Metal engineering)
•**Hydraulic engine stand**	Industrial development (Metal engineering

Technology has a shelf life of a banana

THANK YOU