





## Dublin Bus Profile

- **980 Buses**
- **3400 Employees**
  - Drivers 2600
  - Engineering/Other 800
- **7 Depots**
- **Route Network comprising**
  - 128 Public Service Obligation (PSO) route groups – NTA Contract
  - 2 Commercial Services; Airlink and City Tours
- **Our Annual operation includes**
  - 120 million customers carried
  - 64 million kilometres operated





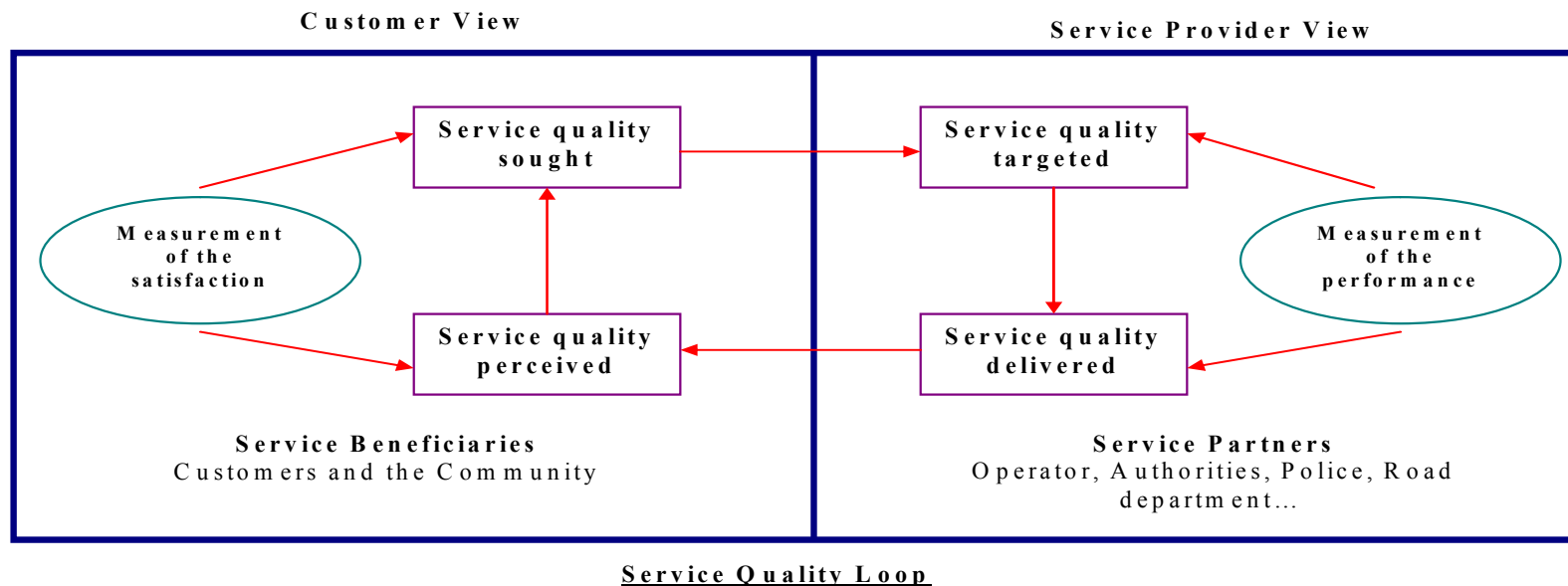
# Quality Model Development

- 1) **Service Quality – Structure**
- 2) Dimensions of Service Quality
- 3) Importance of Criteria
- 4) Application of Service Quality
- 5) Continuous Improvement



# EN 13816:2002 TRANSPORTATION - LOGISTICS AND SERVICES - PUBLIC PASSENGERTRANSPORT - SERVICE QUALITY DEFINITION, TARGETING AND MEASUREMENT

This standard is based on the concept of the service quality loop





## CUSTOMER

TRANSITORY SERVICE INTENSIFIERS  
- Emergencies  
- Service Problems

PERCEIVED SERVICE ALTERNATIVES

SELF-PERCEIVED SERVICE ROLE

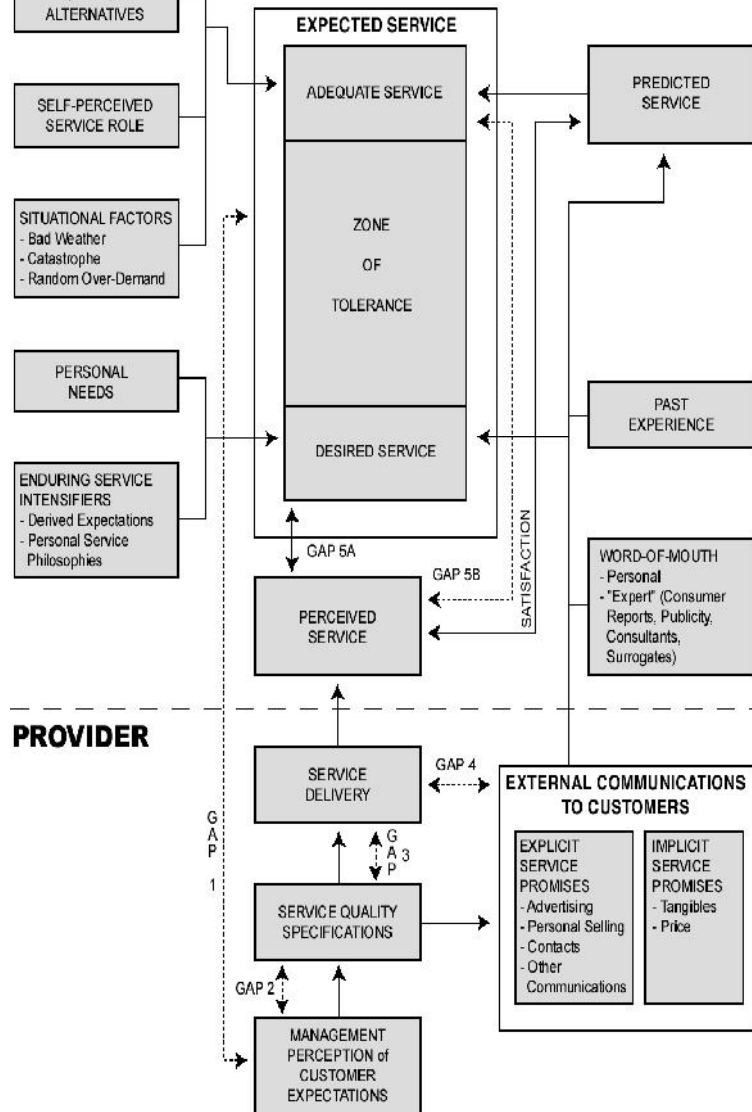
SITUATIONAL FACTORS  
- Bad Weather  
- Catastrophe  
- Random Over-Demand

PERSONAL NEEDS

ENDURING SERVICE INTENSIFIERS  
- Derived Expectations  
- Personal Service Philosophies

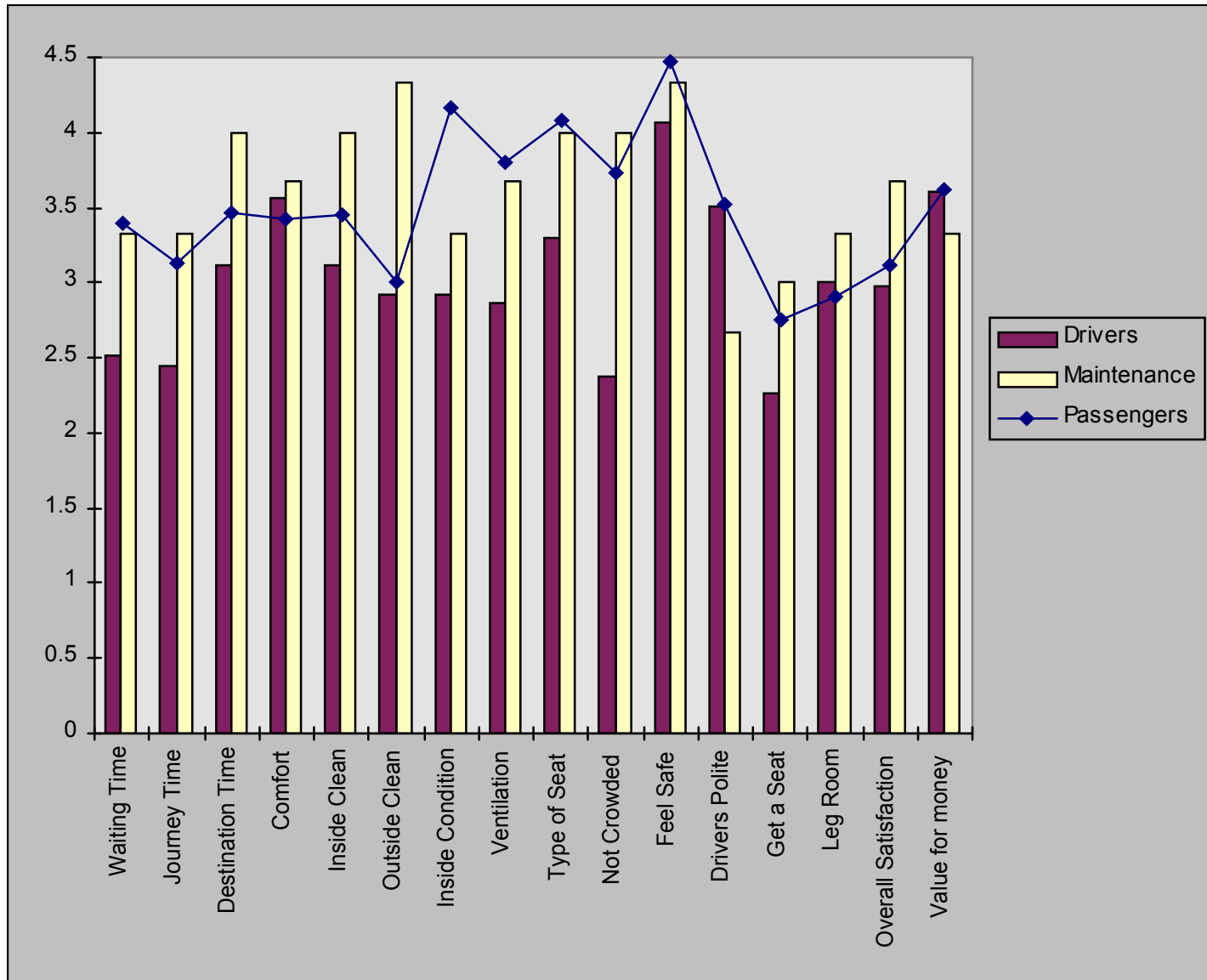
## CONCEPTUAL MODEL OF SERVICE QUALITY

incorporating the nature and determinants of customer expectations of service



## The five gaps consist of:

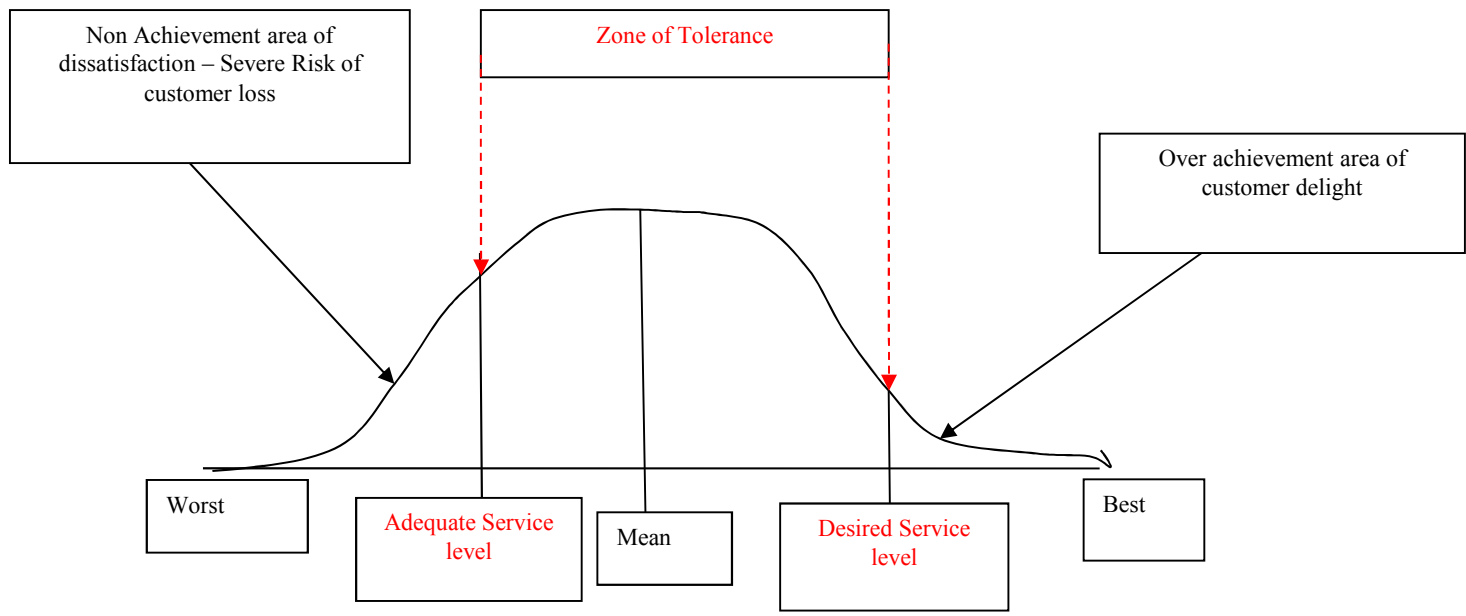
- 1. Consumer expectation:** – management perception gap: - This is the gap between what the consumer expects from the service and what management believes the customer expects.
- 2. Management perception:** – service quality specification: - This is the gap between what management believes the customer expects and the company's service quality specifications.
- 3. Service quality specifications:** – service delivery gap: - This is the gap between the company's service quality specifications and the actual service as delivered.
- 4. Service delivery – external communications:** - This is the gap between the actual service delivery and the external communications about the service. This gap will affect the service quality from a consumer's viewpoint.
- 5. Expected service – perceived service:** - This is the gap between the service as expected by the consumer and the perception of the service as received. The difference both in direction and magnitude is the consumer's measure of the level service quality received. This fifth gap is a function of the previous four.



Route 41 External & Internal Perceptions of Service - Passengers, Drivers and Maintenance  
Graph derived from Summerhill Staff Audit and Route 41 Route Quality Survey.



Range of anticipated performance, for one dimensional criterion





# Quality Model Development

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# Dimensions of Service Quality

## SERVQUAL

### Five fundamental service quality dimensions.

Tangibles: Appearance of physical facilities, equipment and personnel.

Reliability: Ability to perform the promised service dependably and accurately.

Responsiveness: Willingness to help customers and provide prompt service.

Assurance: Knowledge and courtesy of employees and their ability to convey trust and confidence.

Empathy: Caring individualized attention the firm provides to its customers.

**Source:** Zeithamal, Parasuraman and Berry (1990).



## The Citizens' Network – 1996

<b>"Citizens' Network" Quality Checklist.</b> <b>Source:</b> The Citizens' Network, European Commission Green Paper 1996.	
<b>System Accessibility:</b>	<ul style="list-style-type: none"><li>- Needs of people with reduced mobility</li><li>- Physical design of rolling stock</li><li>- Design of stations including intermodality</li><li>- Linking trip attracting areas to public transport</li><li>- Linking rural and peripheral regions</li></ul>
<b>Affordability:</b>	<ul style="list-style-type: none"><li>- Fare levels</li><li>- Socially desirable services (concession fares )</li></ul>
<b>Safety / Security:</b>	<ul style="list-style-type: none"><li>- Safety standards</li><li>- Quality of lighting</li><li>- Qualifications of staff</li><li>- Number of staff on duty / surveillance system</li></ul>
<b>Travel convenience:</b>	<ul style="list-style-type: none"><li>- Journey times</li><li>- Reliability</li><li>- Frequency</li><li>- Cleanness</li><li>- Comfort</li><li>- Information</li><li>- Integrated ticketing</li><li>- Flexibility</li></ul>
<b>Environmental impact:</b>	<ul style="list-style-type: none"><li>- Emissions</li><li>- Noise</li><li>- Infrastructure</li></ul>



## Quality Criteria:- EN 13816:2002 Standard

The standard has 8 categories:


- 1) **availability:-** extent of the service offered in terms of geography, time, frequency and transport mode
- 2) **accessibility:-** access to the PPT system including interface with other transport modes
- 3) **information:-** systematic provision of knowledge about a PPT system to assist the planning and execution of journeys
- 4) **time:-** aspects of time relevant to the planning and execution of journeys
- 5) **customer care:-** service elements introduced to effect the closest practicable match between the standard service and the requirements of any individual customer
- 6) **comfort:-** service elements introduced for the purpose of making PPT journeys relaxing and leasurable
- 7) **security:-** sense of personal protection experienced by customers, derived from the actual measures implemented and from activity designed to ensure that customers are aware of those measures
- 8) **Environmental impact:-** effect on the environment resulting from the provision of a PPT service



**Exhibit 31. Hierarchy of quality determinants in public transport**

Q U A L I T Y	1. A v a i l a b i l i t y	1.1 N e t w o r k	1.1.1 d i s t a n c e t o C / D p o i n t s 1.1.2 n e e d f o r t r a n s f e r s 1.1.3 a r e a c o v e r e d
		1.2 T i m e t a b l e	1.2.1 o p e r a t i n g h o u r s 1.2.2 f r e q u e n c y
	2. A c c e s s i b i l i t y	2.1 E x t e r n a l i n t e r f a c e	2.1.1 p e d e s t r i a n s 2.1.2 c y c l i s t s 2.1.3 t a x i u s e r s 2.1.4 p r i v a t e c a r u s e r s
		2.2 I n t e r n a l i n t e r f a c e	2.2.1 e n t r a n c e s / e x i t s t o C / D - p o i n t s 2.2.2 i n t e r n a l m o v e m e n t a t C / D - p o i n t s 2.2.3 a c c e s s t o v e h i c l e s 2.2.4 i n t e r n a l m o v e m e n t i n v e h i c l e s
		2.3 T i c k e t i n g	2.3.1 h o m e t i c k e t i n g 2.3.2 t i c k e t i n g w i t h i n s y s t e m 2.3.3 t i c k e t i n g a t o t h e r l o c a t i o n s
	3. I n f o r m a t i o n	3.1 G e n e r a l i n f o r m a t i o n	3.1.1 a v a i l a b i l i t y 3.1.2 a c c e s s i b i l i t y 3.1.3 t i m e 3.1.4 c u s t o m e r c a r e 3.1.5 c o m f o r t 3.1.6 s e c u r i t y 3.1.7 e n v i r o n m e n t
		3.2 T r a v e l i n f o r m a t i o n i n n o r m a l c o n d i t i o n s	3.2.1 s t r e e t d i r e c t i o n s 3.2.2 C / D - p o i n t i d e n t i t y 3.2.3 v e h i c l e d i r e c t i o n 3.2.4 r o u t e 3.2.5 t i m e 3.2.6 f a r e 3.2.7 t y p e o f t i c k e t
		3.3 T r a v e l i n f o r m a t i o n i n a b n o r m a l c o n d i t i o n s	3.3.1 c u r r e n t n e t w o r k s t a t u s 3.3.2 s u g g e s t e d a l t e r n a t i v e 3.3.3 r e f u n d / r e d r e s s 3.3.4 s u g g e s t i o n s a n d c o m p l a i n t s 3.3.5 l o s t p r o p e r t y
	4. T i m e	4.1 l e n g t h o f t r a v e l t i m e 4.2 P u n c t u a l i t y 4.3 R e l i a b i l i t y	
	5. C u s t o m e r c a r e	5.1 C o m m i t m e n t	
		5.2 C u s t o m e r i n t e r f a c e	5.2.1 e n q u i r i e s 5.2.2 c o m p l a i n t s 5.2.3 r e d r e s s 5.2.4 s u g g e s t i o n s
		5.3 S t a f f	5.3.1 a v a i l a b i l i t y 5.3.2 a t t i t u d e 5.3.3 s k i l l s 5.3.4 a p p e a r a n c e

## Hierarchy of quality determinants in public transport

<p>Q U A L I T Y</p> 	5. Customer care	5.4 Physical assistance	5.4.1 at service disruptions 5.4.2 towards mobility impaired 5.4.3 towards inexperienced customers 5.4.4 movement of luggage etc 5.4.5 persons with prams 5.4.6 inexperienced customers
		5.5 Ticketing options	5.5.1 exchangeability 5.5.2 flexibility 5.5.3 concessionary tariff 5.5.4 through ticketing 5.5.5 payment options
	6. Comfort	6.1 Ambient conditions	6.1.1 air quality and temperature 6.1.2 weather protection 6.1.3 cleanliness 6.1.4 brightness 6.1.5 congestion 6.1.6 noise 6.1.7 other intrusive activity
		6.2 Facilities	6.2.1 seating and personal space 6.2.2 toilets/washing 6.2.3 luggage and other objects 6.2.4 communication 6.2.5 refreshments 6.2.6 commercial services 6.2.7 entertainment
		6.3 Ergonomics	6.3.1 ease of movement 6.3.2 furniture design
		6.4 Ride comfort	6.4.1 starting/stopping 6.4.2 during travel
	7. Security	7.1 Safety from crime	7.1.1 staff/police presence 7.1.2 lighting 7.1.3 visible monitoring 7.1.4 layout 7.1.5 identified help points
		7.2 Safety from accident	7.2.1 presence/visibility of supports 7.2.2 avoidance/visibility of hazards 7.2.3 active safeguarding by staff
		7.3 Perception of security	7.3.1 conspicuousness of safety measures 7.3.2 "mastery of network" 7.3.3 press relations
	8. Environment	8.1 Pollution	8.1.1 emissions 8.1.2 noise 8.1.3 visual pollution 8.1.4 vibration 8.1.5 dust & dirt 8.1.6 odour 8.1.7 waste
		8.2 Natural resources	8.2.1 energy 8.2.2 space
		8.3 Infrastructure	8.3.1 effect of vibration 8.3.2 wear on road etc 8.3.3 capacity demand 8.3.4 disruption



# Dublin Bus Criteria

<b>5. Customer care</b>	5.1 Commitment	5.1.1 customer orientation	C11	Drivers attitude towards customers Driver waits if I am running for the bus	
		5.1.2 innovation and initiative	new	DB seen as innovative?	
	5.2 Customer interface	5.2.1 enquiries 5.2.2 complaints			
	5.3 Staff	5.3.1 availability 5.3.2 commercial attitude 5.3.4 appearance	D49 new obs	Staff on street to help	
	5.4 Assistance				
	5.5 Ticketing options	5.5.3 through ticketing 5.5.4 payment options 5.5.5 consistent price calculations	D21 new C14 new	Range & availability of tickets to suit my needs Satisfaction with availability of thru tickets Satisfaction with payment options available Satisfaction with fare structure Satisfaction with change receipts	
	<b>6. Comfort</b>	6.1 Useability of passenger facilities	6.1.1 at b/a points		Bus stops at shelter - not further on Proper queuing & boarding at shelter
		6.2 Seating and personal space	6.2.1 in vehicle		Level of crowding on -bus Can get a seat Comfort of seat - space, legroom
			6.2.2 at b/a-points	D25	Sufficient seats at shelter
		6.3 Ride comfort	6.3.1 driving 6.3.2 starting/stopping	D42 & c10 C10	Smoothness of driving as above
6.4 Ambient conditions		6.4.1 atmosphere	C7 C8 C9 & D39	Heating Lighting Ventilation	
		6.4.2 weather protection	C2 D23	Protection from weather at stop	
		6.4.3 cleanliness	C6& D38 D26 D29	Cleanliness inside Clean waiting area Clean outside	
		6.4.4 brightness	C8 & D40	<i>Above under atmosphere</i>	
		6.4.6 noise	new CSS	Satisfaction with noise levels?	
		6.4.7 other undesired activity	D43	Pleasant well behaved passengers	
		6.4.8 condition			
6.5 Complementary facilities		6.5.2 luggage & other objects	D51	There is adequate storage space	



FORM C1 –6 Onbus Customer Satisfaction

**Interactions Ltd. 01 – 2017774 Customer Satisfaction Survey for Dublin Bus C1 (Availability)**

<b>Gender</b>	1. Male <input type="checkbox"/>	2. Female <input type="checkbox"/>	<b>Age band</b>	1. Under18 <input type="checkbox"/>	2. 18-29 <input type="checkbox"/>	3. 30-40 <input type="checkbox"/>	4. 41-49 <input type="checkbox"/>	5. 50-65 <input type="checkbox"/>	6. 66+ <input type="checkbox"/>
<b>How much is your fare today</b> (or cash price if you'd had to pay on the bus)					1. 1.15 or less <input type="checkbox"/>	2. 1.60 <input type="checkbox"/>	3. 1.80 <input type="checkbox"/>	4. 2.20 <input type="checkbox"/>	5. 3.50+ <input type="checkbox"/>
<b>Ticket type</b>	1. Cash <input type="checkbox"/>	2. Prepaid <input type="checkbox"/>	3. OAP pass <input type="checkbox"/>	4. Other pass <input type="checkbox"/>	<b>Are you up/downstairs on this bus</b>			Up <input type="checkbox"/>	Down <input type="checkbox"/>
<b>Purpose of journey</b>	1. Work/Education <input type="checkbox"/>		2. Shopping <input type="checkbox"/>		3. Leisure/Social <input checked="" type="checkbox"/>		4. Visit to doctor/hosp <input type="checkbox"/>		5. Other <input type="checkbox"/>
<b>How often do you use our buses</b>	1. Very Often (Every day) <input type="checkbox"/>		2. Often (at least 3 days per week) <input type="checkbox"/>		3. Sometimes (at least once a week) <input type="checkbox"/>		4. Rarely (at least once per month) <input type="checkbox"/>		5. Very Rarely (less than once per month) <input type="checkbox"/>

Was there a shelter (cover/protection from the weather) at the stop where you boarded this bus  Yes  No

Do you own a car  Yes  No

Could you have used the car but chose to use the bus  Yes  No

Thinking about your normal bus journey, how satisfied or otherwise are you with the following:

	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
1. The route suits my needs, its direct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The location of the bus stop where I board is convenient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The location of the bus stop where I get off is convenient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The bus starts early enough in the morning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. This bus is frequent enough	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Can leave home when I want – not worrying about the bus going early/too full, etc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Overall satisfaction with Dublin Bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Overall satisfaction with Value for Money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Satisfaction with the network area served by Dublin Bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Satisfaction with accessibility to buses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Satisfaction with information generally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Satisfaction with timeliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Satisfaction with Customer Care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Satisfaction with range of tickets and fares	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Satisfaction with comfort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Satisfaction with security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Satisfaction with the effect of buses on the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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- 1) Service Quality – Structure
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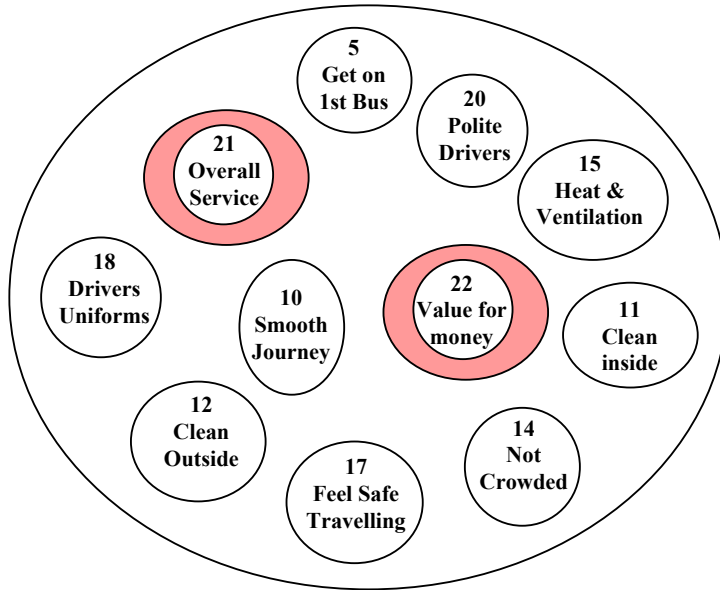


## The difference between a dissatisfied customer and a delighted one

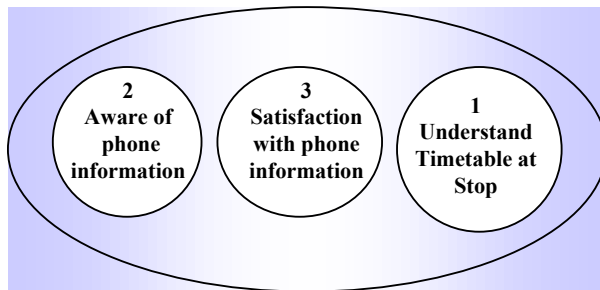
- Satisfiers - If you deliver on these, you make the customer satisfied
- Dissatisfiers - If you deliver on these, it makes no difference to customer satisfaction
- However, if you don't deliver on these, it makes the customer dissatisfied



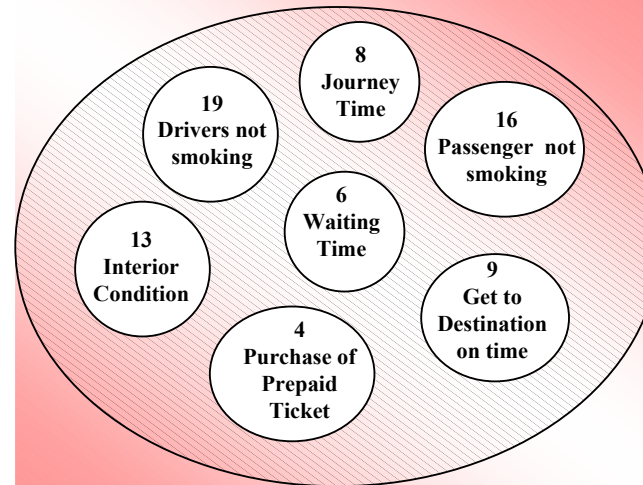
### Motivators - Impact on Customer Satisfaction



### Information



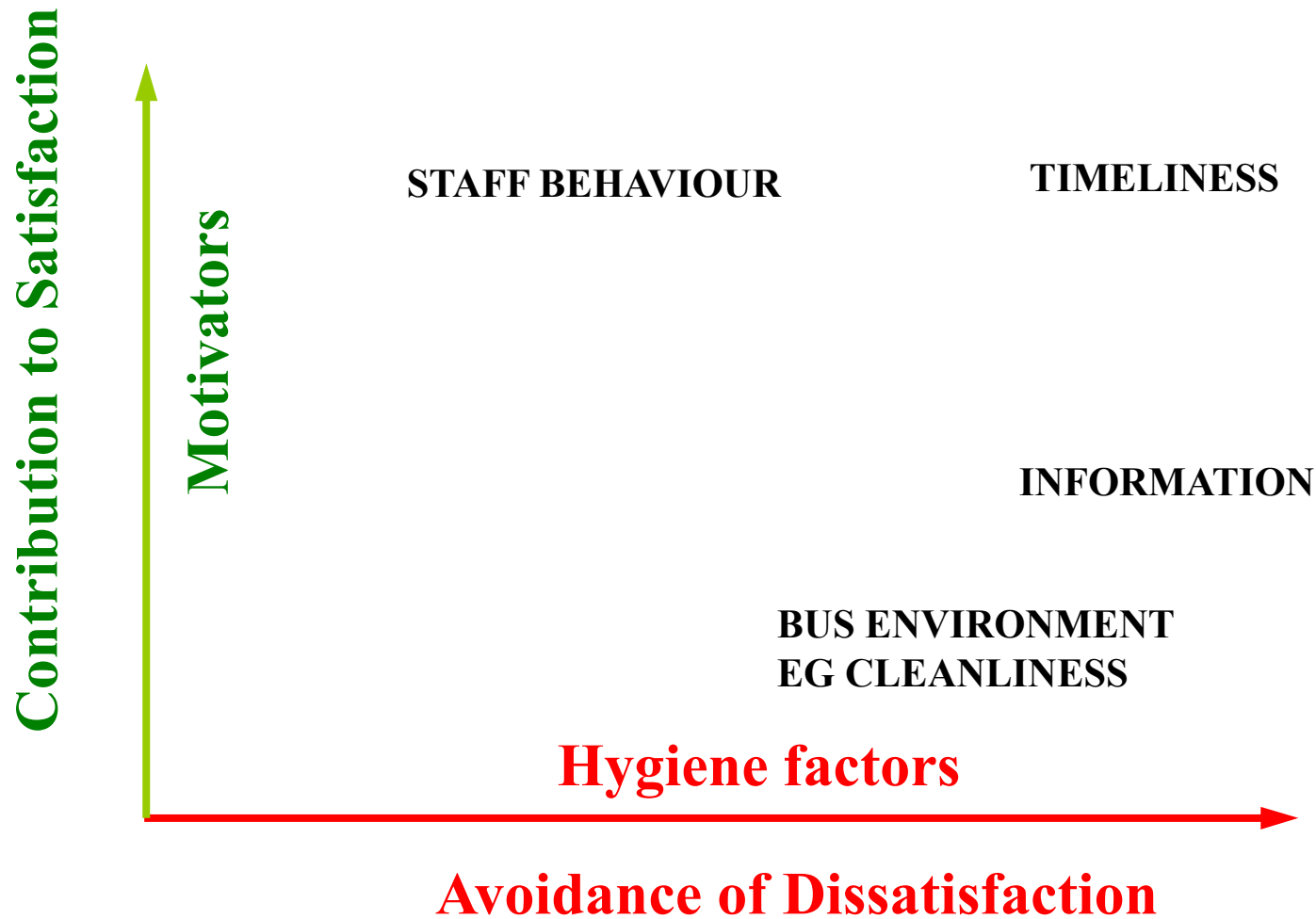
### Hygiene Factors - Must be delivered to avoid dissatisfaction



Cluster diagram showing Motivators, Hygiene Factors and Information factors.

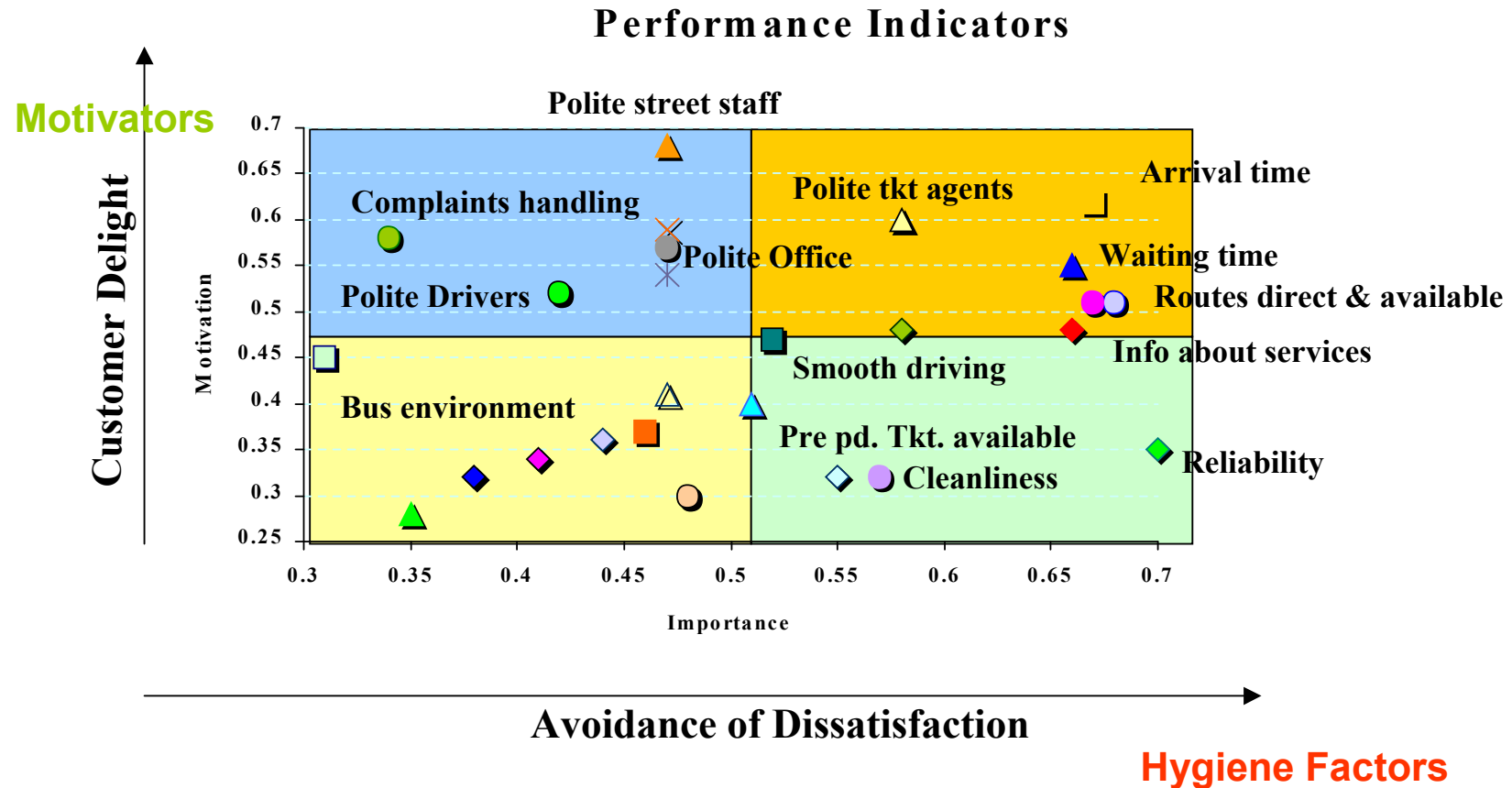


# Plotting Hygiene Factors and Motivators





# The Customer Perspective





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## Customer Charter:

*Charters detail the commitment of the operator to the customers and set out the standards against which the operator is working, how it publishes its performance against those standards, how it looks after the customers and compensates them if things go wrong and how they can contact the operator.*



If we have a customer charter it will act as the catalyst changing staff and management attitudes and facilitating the development of continuous improvement, thus creating an alignment between customers and the organisation. It will also alter expectations (constructs) of customers.



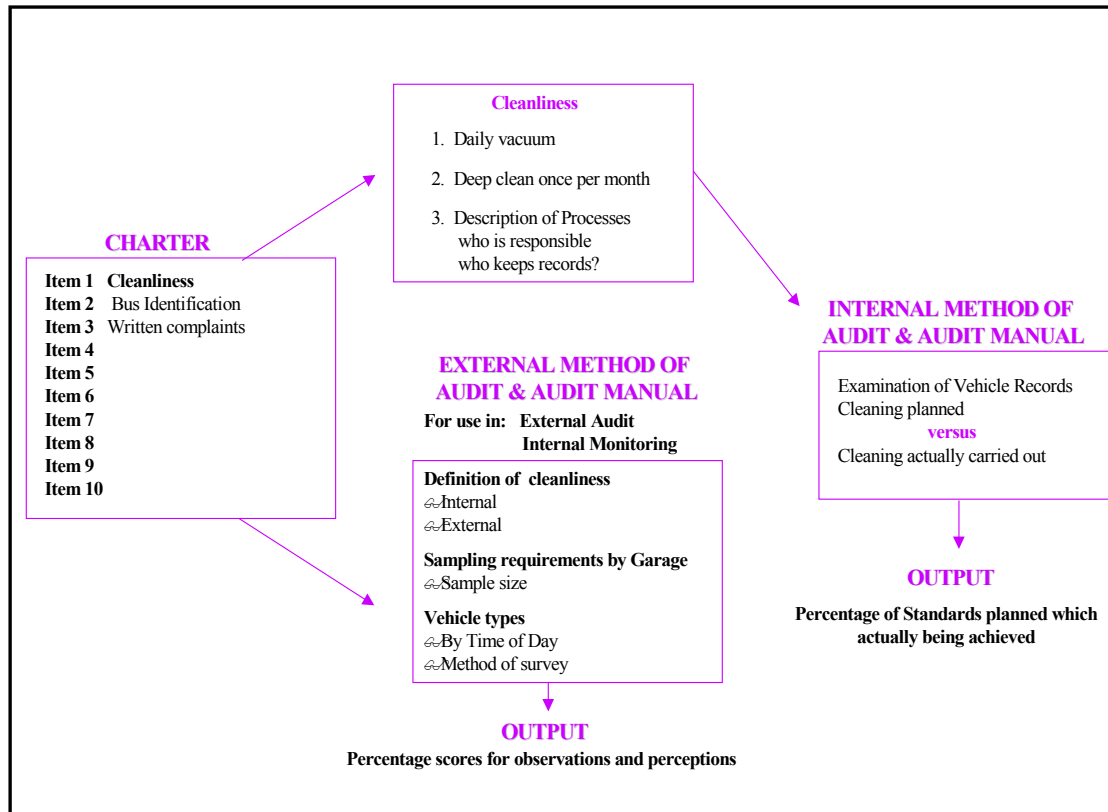
## Customer Charter:

- **Charters can be classified into four categories:**
- The charter of intention, which sets general values and principles;
- The charter of commitment, which specifies the levels of service the customer is entitled to receive by virtue of the charter;
- The charter of actions, which defines the methods envisaged by the operator in order to achieve various service standards;
- The “agreement” charter, which details the rights and duties of the parties involved.





# Service Quality



- The tools available to achieve these aspirations may be summarised as follows:
- Market research identifies and quantifies the importance placed by customers on a wide range of attributes;
- Performance measures give a framework for quantifying the quality of service provided, and the standards to be achieved;
- Target setting provides a mechanism to allow the desired standards to be reached and performance to be driven up;
- Performance monitoring then assesses how far the desired standards are achieved in practice.





# Criteria Relationships



Purpose of journey / Overall Satisfaction TIMELINESS	
	Overall Satisfaction TIMELINESS
Leisure/Social	<u>3.52</u>
Doctor/Hospital	3.51
Shopping	3.36
Business	3.27
Work/College	3.09

Age / Overall Satisfaction TIMELINESS	
	Overall Satisfaction TIMELINESS
66+	3.62
41-49	3.50
50-65	3.37
18-29	3.18
30-40	3.13
>18	2.71

Own car / Overall Satisfaction TIMELINESS	
	Overall Satisfaction TIMELINESS
Yes	3.42
No	3.13

Timeband / Overall Satisfaction TIMELINESS	
	Overall Satisfaction TIMELINESS
C 0930-1200	3.42
F 1615-1845	3.26
D 1200-1400	3.22
E 1400-1615	2.74
G 1845-2000	
B 0700-0930	

Bus frequent enough / Overall Satisfaction TIMELINESS	
	Mean
Bus frequent enough	3.48
Overall Satisfaction TIMELINESS	3.23

Choice of car instead of bus / Overall Satisfaction TIMELINESS	
	Overall Satisfaction TIMELINESS
Yes	<u>3.47</u>
No	3.08

Not worried about bus going early/full / Overall Satisfaction TIMELINESS	
	Mean
Not worried about bus going early/full	3.28
Overall Satisfaction TIMELINESS	3.23



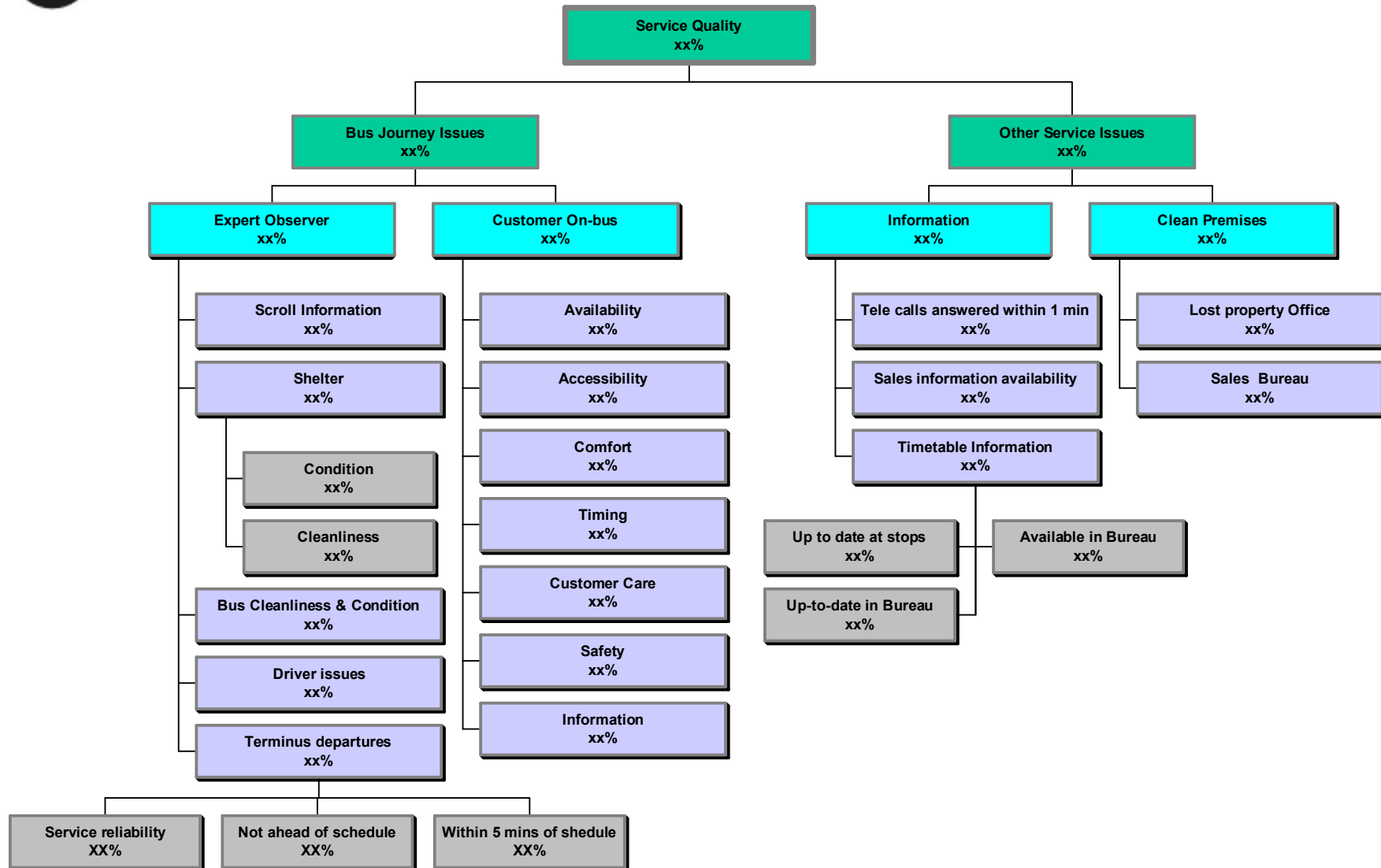


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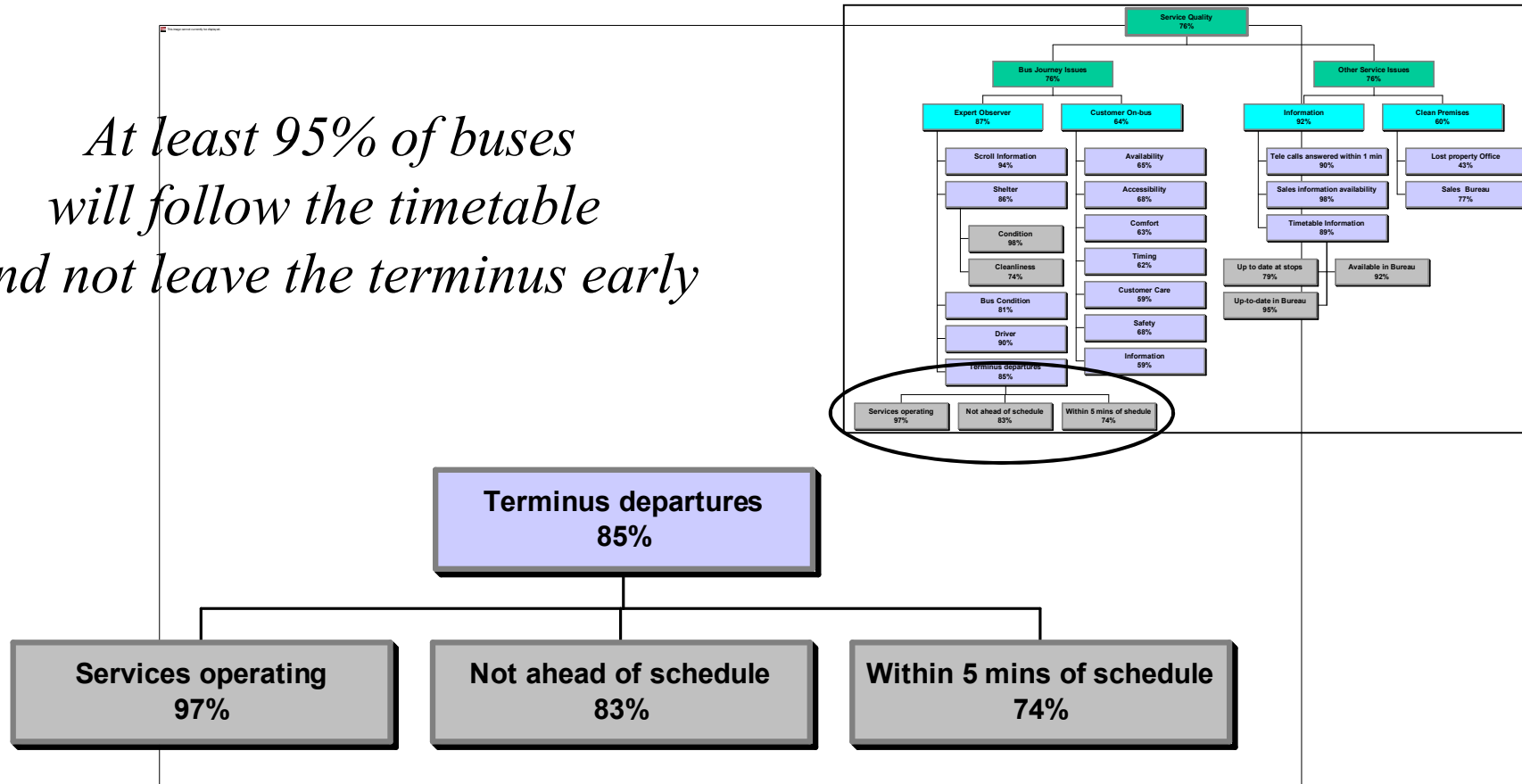
# Quality Hierarchy





# Timeliness of buses

*At least 95% of buses  
will follow the timetable  
and not leave the terminus early*



Comparison with Customer Charter Standards



## Winter 2010-2011 results

### On-Bus Customer Overall Domain Satisfaction Scores

Overall Satisfaction VALUE	61.8%
Overall Satisfaction TIMELINESS	55.8%
Overall Satisfaction TICKETS/FARES	64.8%
Overall Satisfaction SECURITY	63.5%
Overall Satisfaction Info GENERALLY	65.0%
Overall Satisfaction Environment impact	67.0%
Overall Satisfaction DUBLIN BUS	68.3%
Overall Satisfaction DB NETWORK	65.3%
Overall Satisfaction CUSTOMER CARE	63.5%
Overall Satisfaction COMFORT	69.5%
Overall Satisfaction ACCESSIBILITY	71.3%



# Winter 2010-2011 results

## On-Bus Customer Satisfaction Scores

### *Customer Satisfaction Mean Scores (%) in descending order*

Alight stop convenient	82.8%	Adequate Ventilation	69.3%
Boarding stop convenient	80.3%	Journey time of this bus	68.3%
Bus no./destination on scroll	79.8%	Tickets available at agent	68.0%
Easy getting on/off	79.3%	Seat comfort	68.0%
Easy moving around not too crowded	78.3%	Bus stops near shelter	66.3%
comfortable Lighting	77.3%	Easy to transfer to other buses	65.5%
Adequate safety signs	77.3%	Noise levels	64.8%
Easy Validating tickets	77.0%	Pleasant Passengers	63.8%
Enough handrails	77.0%	Bus frequent enough	62.0%
Destination stop easy to identify	76.3%	Enough info at stop	61.5%
Route suits my needs	75.8%	Attitude of other DBus staff	61.0%
Driver driving safely	75.8%	Clean inside bus	60.0%
Easy buying ticket on bus	75.5%	Customer Care	59.3%
Easy to buy Ticket at agent	74.0%	Lighting at stop	58.8%
Driver attitude helpful	74.0%	Clean waiting area	58.3%
Bus starts early enough	72.8%	Understandable Fare structure	57.8%
Bus punctual	72.0%	Orderly Queuing & boarding	57.5%
Enough info before journey	72.0%	Not worried about bus going early/full	57.0%
time this bus arrived	70.0%	Informed re changes to timetable	51.3%
Bus service reliable	69.8%	Driver waits if running	49.3%
Safety while waiting	69.5%	Weather protection while waiting	43.0%



# Winter 2010-2011 results

## On-Bus Observer Rating – Mean Scores (%)

Passengers behaved	99.5%
Litter	80.8%
Easy to alight	91.5%
Correct uniform	80.8%
Condition outside	91.0%
Condition of Seats	98.8%
Clean windows	66.0%
Clean outside	67.0%
Clean inside bus	81.3%
Clean Floor	66.0%
Bus pulls into kerb	98.3%



# Tracking Improvement

- [Research rS1.xlsx](#)





**Thank you for your  
attention.**

**Any Questions?**