

Master's degree in Management in Business Administration Business Strategies

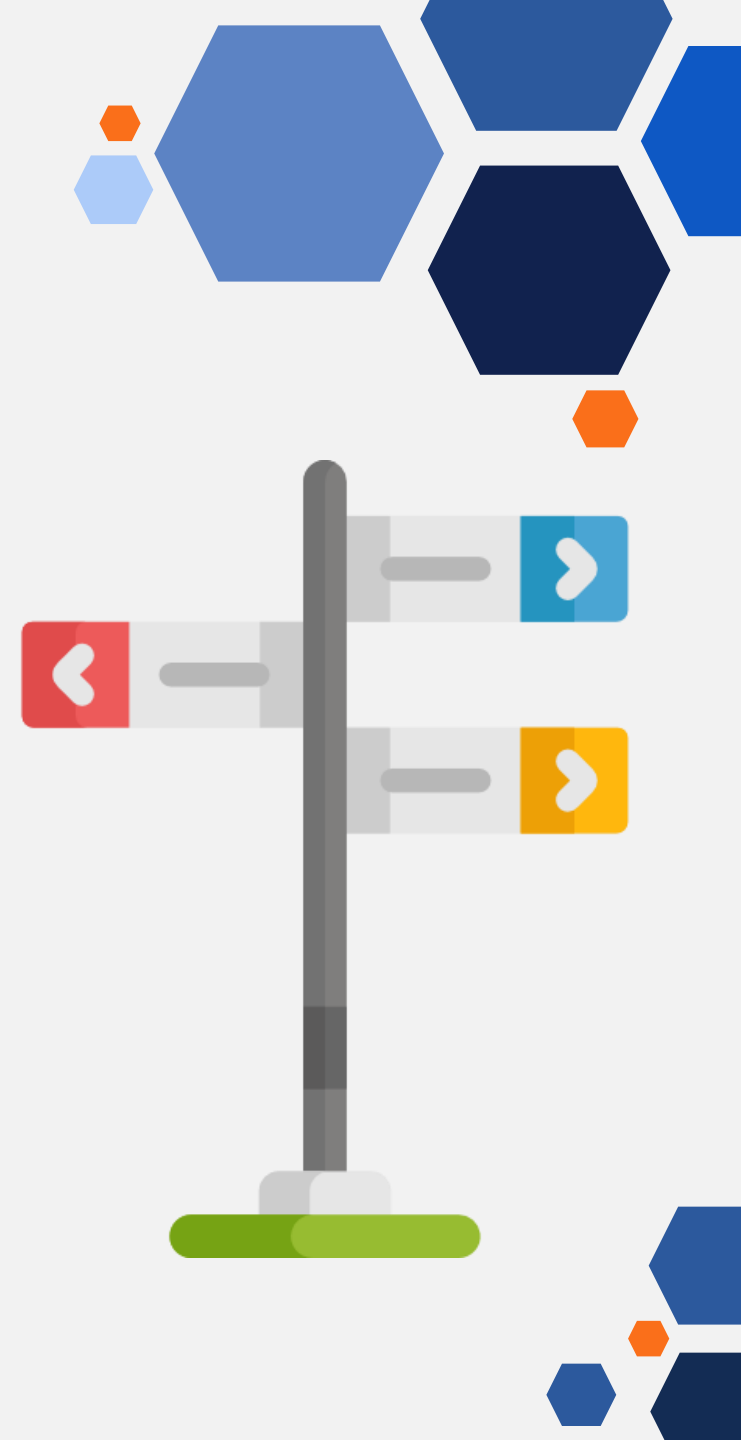
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Universitat de València
Sport Management & Innovation Research Group

Service Quality

Index

1. General introduction to service quality
2. Service quality measurement
3. Measurement scales in Management
4. Perceived service quality measurement scales
5. ¿how do we apply them?
6. Aiming towards our goal
7. Conclusions
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Introduction

why should we research in Management?

In general, we could define research as:

“the activity aimed at the acquisition or discovery of new knowledge”

(García, 2002)

R + D + I

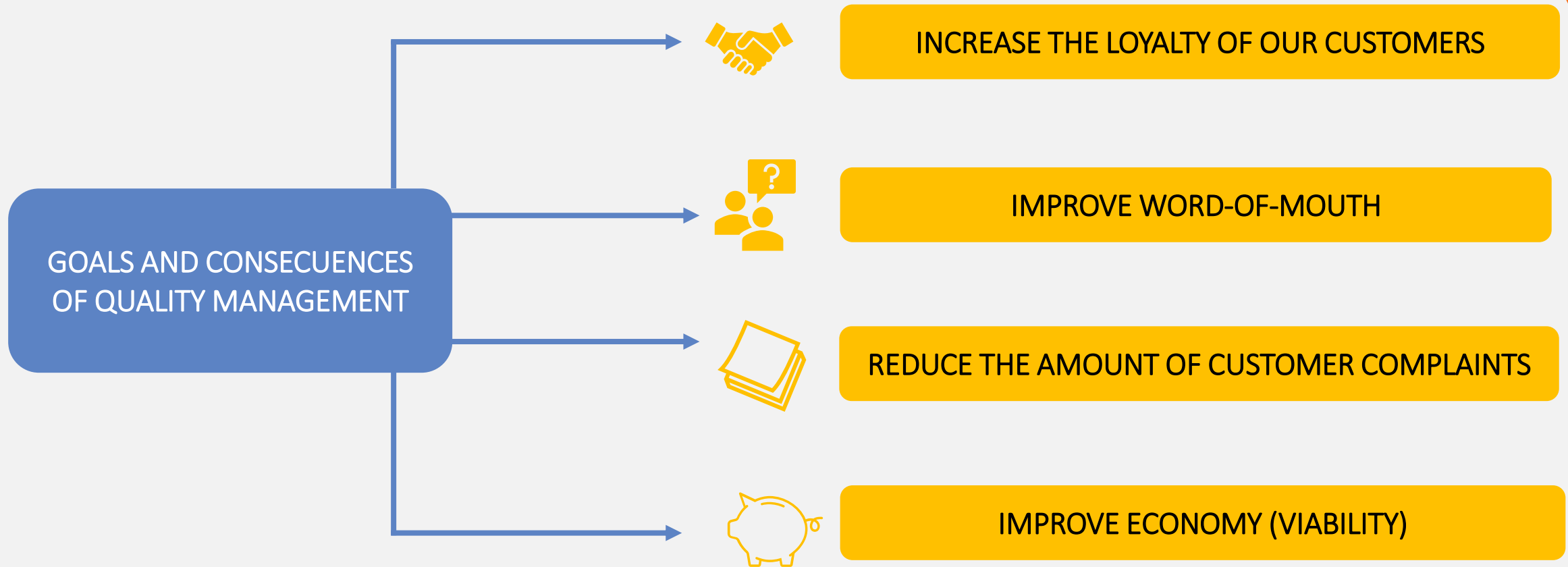
why should we analyse the service quality or the satisfaction on my customers?

Because we need to know their opinions and seduce them to purchase our services



Introduction

why should we research in Management?



Introduction to service quality

what is quality?



Quality acceptations

- 1. Quality as Excellence**
Being the best in an absolute meaning
- 2. Quality as a Value**
Quality related with the price
- 3. Quality as a Conformance to Specifications**
Related to stablished standards
- 4. Quality as a Meeting and/or Exceeding Customers' Expectations**
Subjective factors

(Reeves & Bednar, 1994)

Introduction to service quality

Quality Management Systems



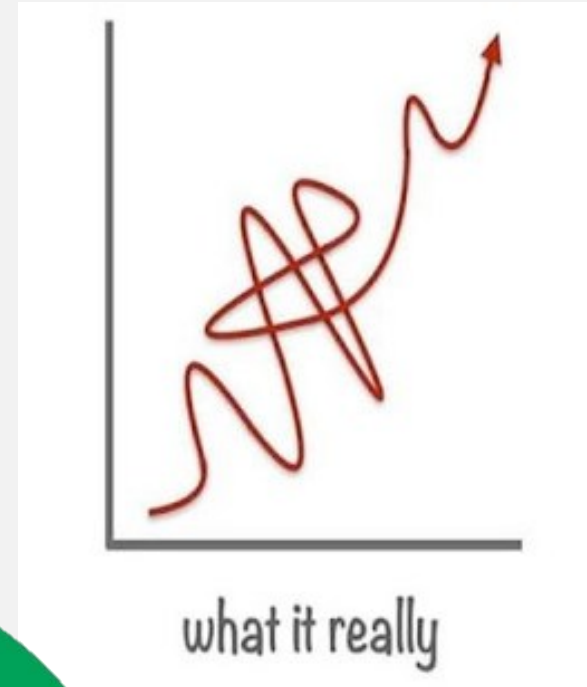
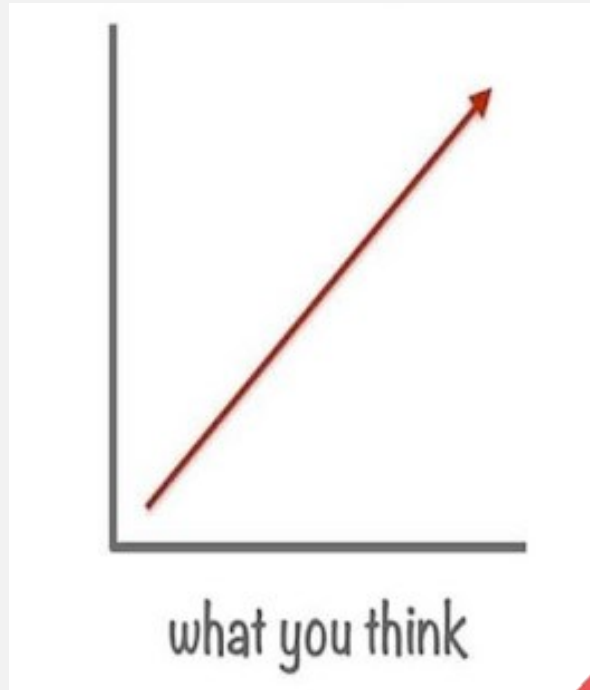
EFQM model



ISO Standards

Introduction to service quality

what is SERVICE quality?



| Introduction to service quality



PERCEPTION IS A KEYWORD

IT IS ABSTRACT, CHANGING AND DIFFICULT TO MEASURE



Introduction to service quality

**TECHNICAL
QUALITY**

≠

**PERCEIVED
QUALITY**

(Carman, 1990)

- Objective
- Manufacturing Based

- Subjective
- Customer Based

“The degree of discrepancy between consumer expectations and their perception of the result.”
(Zeithalm, 1988)

“the satisfaction of the requirements, desires and expectations of the clients-users of a sports service”
(Mundina & Calabuig, 1999)

Introduction to service quality

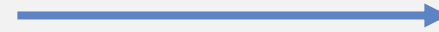
TECHNICAL
QUALITY

≠

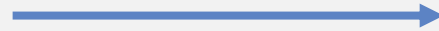
PERCEIVED
QUALITY

(Carman, 1990)

Expected Quality > Perceived Quality



Expected Quality = Perceived Quality

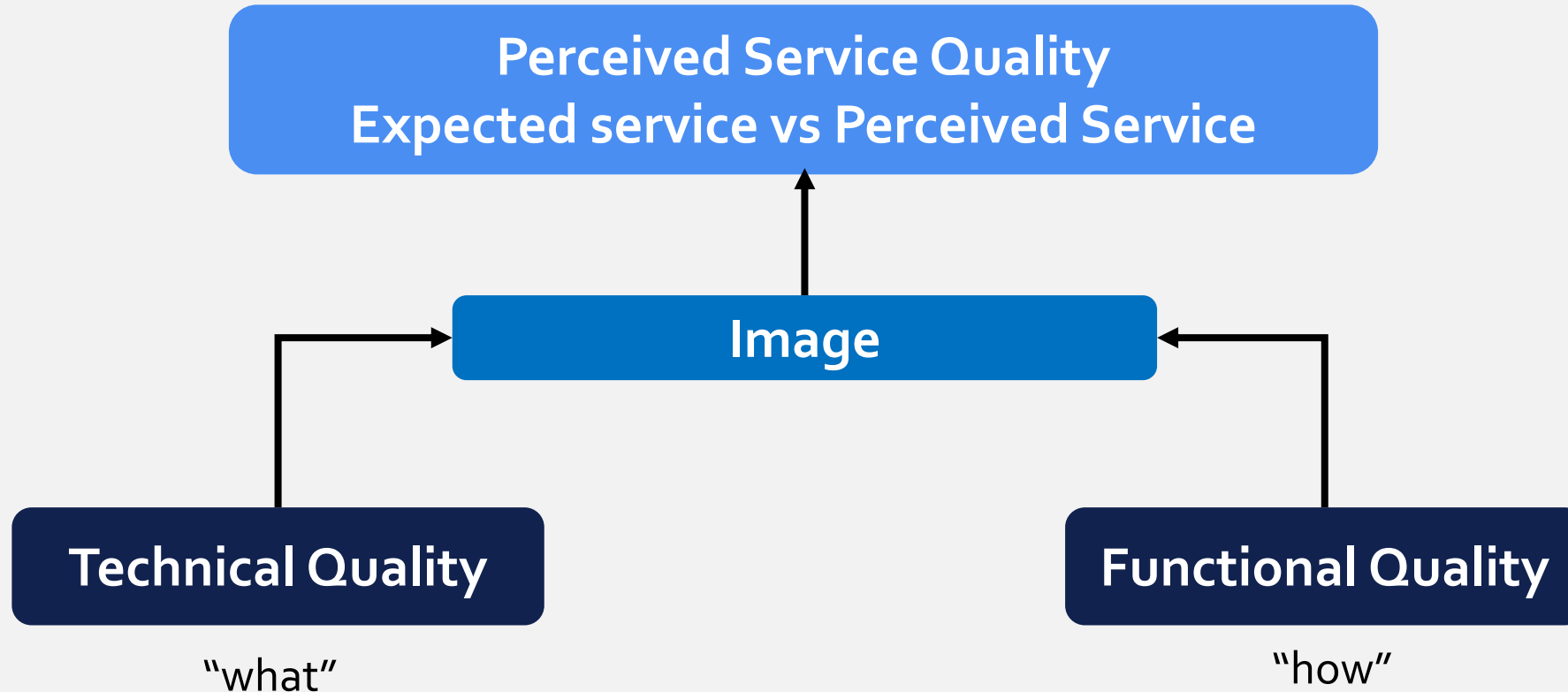


Expected Quality < Perceived Quality



Introduction to service quality

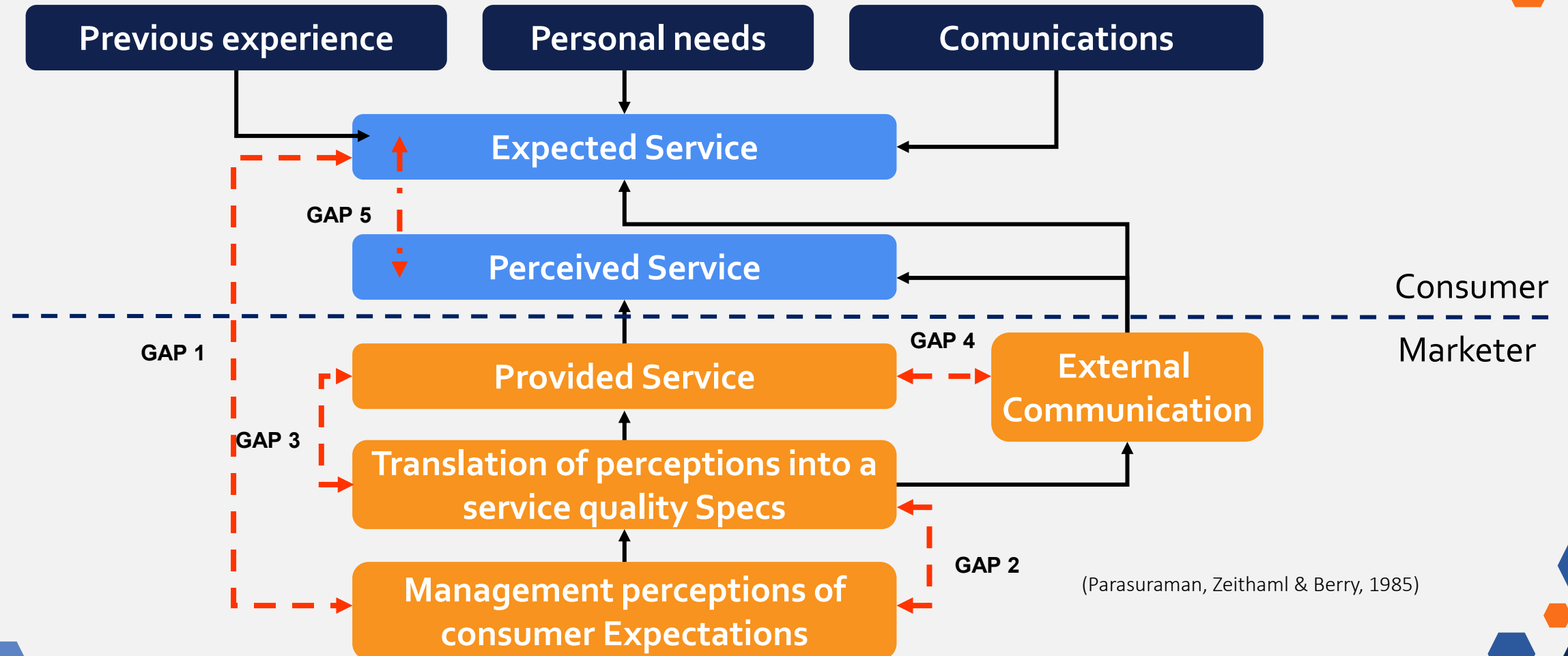
Grönroos model



(Grönroos, C. 1984)

Introduction to service quality

Parasuraman, Zeithmal & Berry model



Introduction to service quality

what is satisfaction?



1. Cognitive response

Information processing

Results evaluation

Comparison process

2. Emotional response

As an act of use or purchase lead by the emotion and moods

Introduction to service quality

QUALITY

VS

SATISFACTION

Quality is a lasting attitude

With specific dimensions

More cognitive

Satisfaction changes in each act of consumption

With alien dimensions

Requires experience

Greater relationship with the price

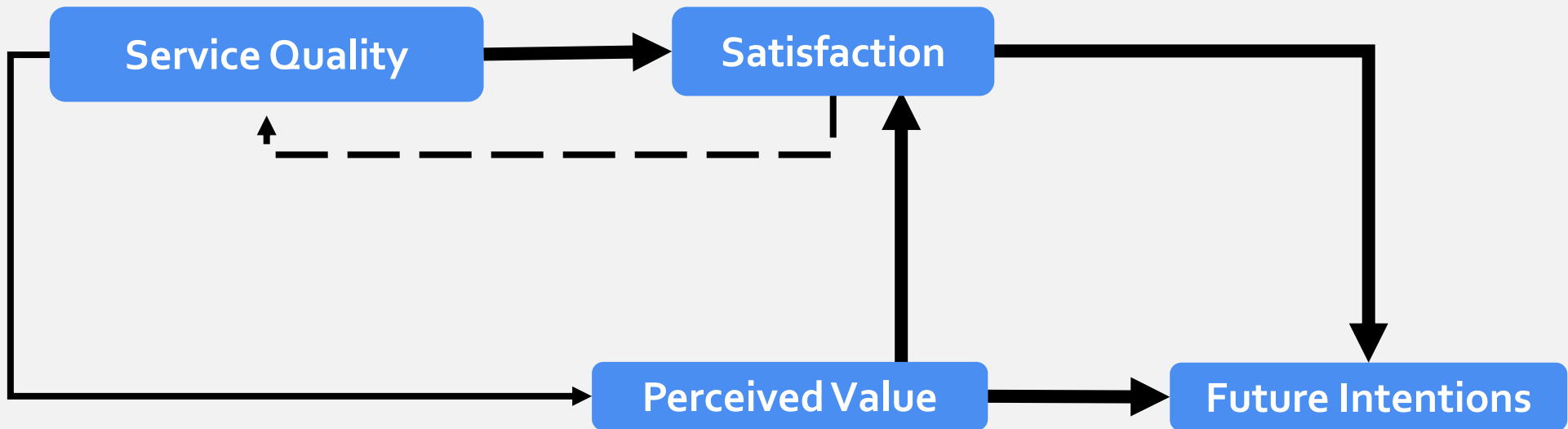
It is more emotional

Introduction to service quality

At the same time:

Satisfaction is the consequence of quality

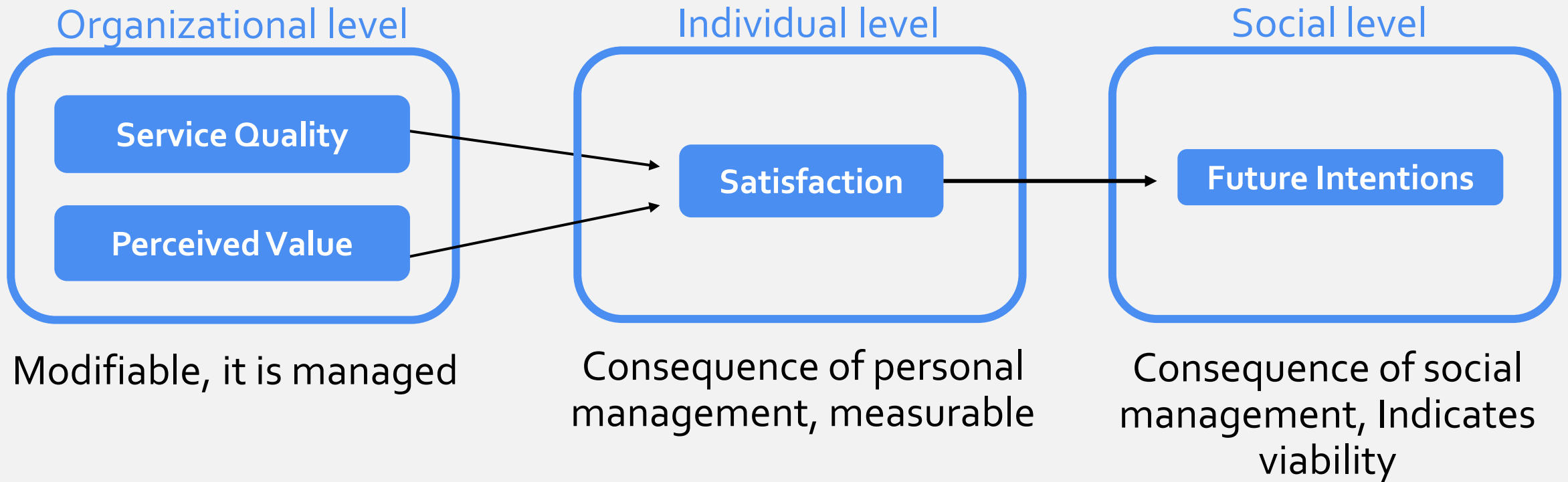
Satisfaction updates the quality levels



We use satisfaction to improve our service

Introduction to service quality

Service Quality, Perceived value and Satisfaction



Introduction to service quality

what is a service?



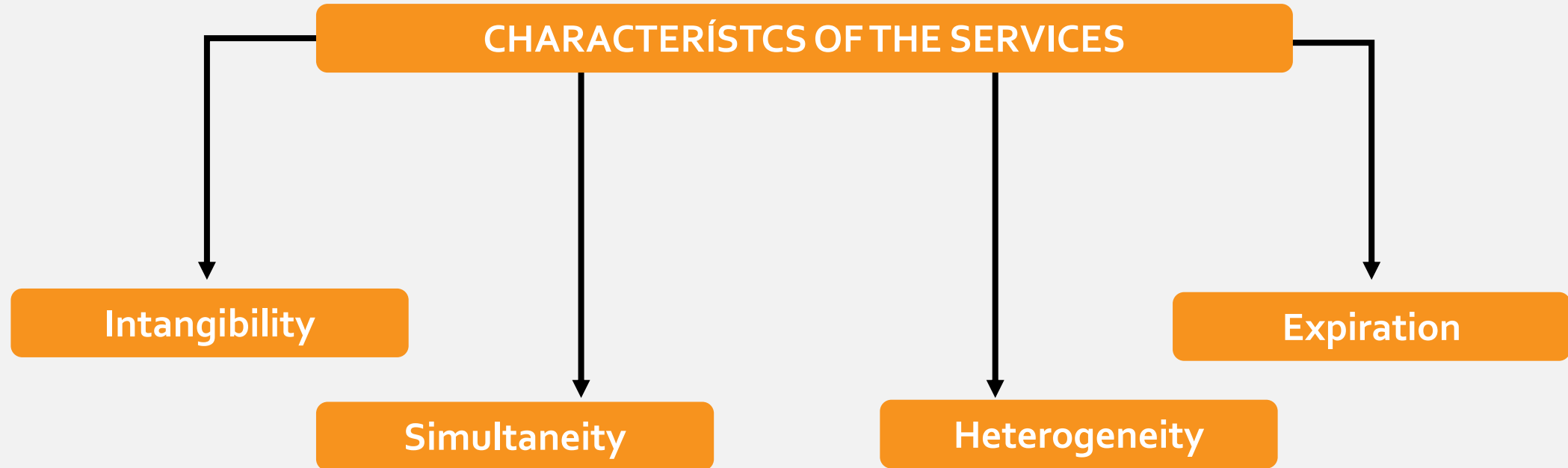
Products[...]that are intangible or at least substantially so[...]Service products are often difficult to identify because they come into existence at the same time they are bought and consumed. **They comprise intangible elements that are inseparable, they usually involve customer participation in some important way, they cannot be sold in the sense of ownership transfer,** and they have no title.

Today, however, most products are partly tangible and partly intangible, and the dominant form is used to classify them as either goods or services (all are products).

(AMA, 2006)

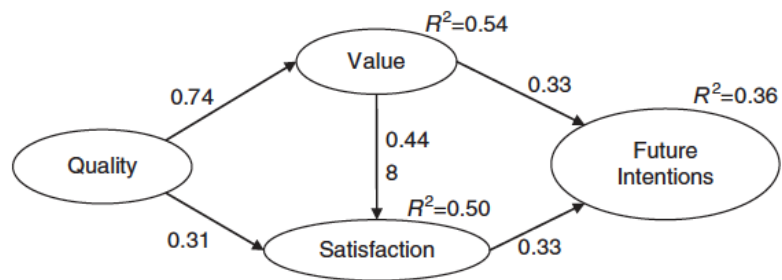
Introduction to service quality

what is a service?



Introduction to service quality

ROLE OF THE EMOTIONS IN SERVICE QUALITY

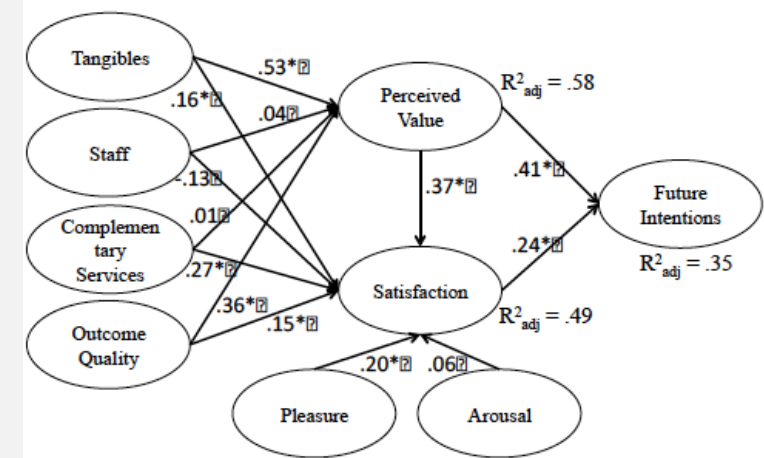


Notes: Model fit: S-B χ^2 (df)=397.16 (165) S-B χ^2 /df=2.41; NFI=0.91; CFI=0.95; RMSEA=0.06

Inžinerine Ekonomika-Engineering Economics, 2016, 27(2), 221–229

Role of Perceived Value and Emotions in the Satisfaction and Future Intentions of Spectators in Sporting Events

Ferran Calabuig-Moreno¹, Josep Crespo-Hervas¹, Juan Nunez-Pomar¹, Irena Valantine², Inga Staskeviciute-Butiene²



Introduction to service quality

ROLE OF THE EMOTIONS IN SERVICE QUALITY

The power of ten cents (one dime) – Norbert Schwarz



Small surprises, big mood change

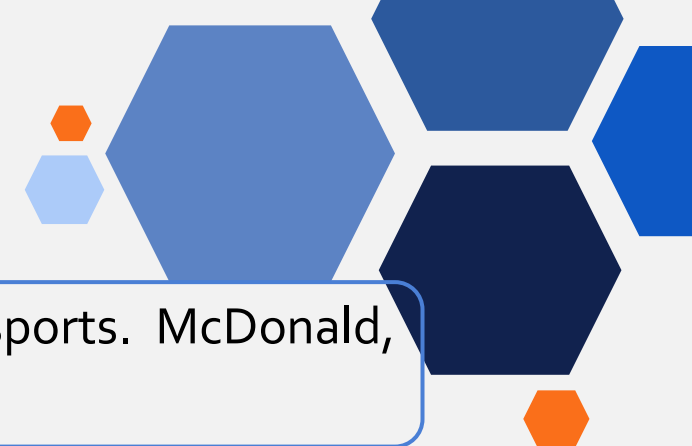
| Service quality measurement



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Q

Service quality measurement



(1995) TEAMQUALTM: Measuring service quality in professional team sports. McDonald, Sutton y Milne

(1995) QUESC: An instrument for assessing service quality of sport centers in Korea. Kim y Kim

(1996) CERM: Measuring Customer Service Quality in Sports and Leisure Centres. Howat et al.

(2001) Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. Brady and Cronin,.

(2005) SSQRS: A hierarchical model of SQ for Recreational sport industry. Ko y Pastore.

(2016) Outcome quality in participant sport and recreation service quality models: Empirical results from public aquatic centres in Australia. Howat y Assaker.

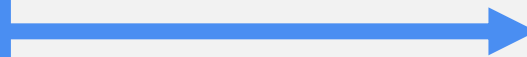


Service quality measurement

SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality

Dimensions

Tangible
Reliability
Responsiveness
Communication
Credibility
Security
Competence
Courtesy
Understanding customers
Access



Dimensions

Tangibles
Reliability
Responsiveness
Assurance/Security
Empathy

Service quality measurement

SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality

Dimensions

Tangibles

Reliability

Responsiveness

Assurance/Security

Empathy

22 Paired items

Expectations vs Perceptions



SQ = Expectations - Perceptions

Service quality measurement

(1995) TEAMQUALTM: Measuring service quality in professional team sports. McDonald, Sutton y Milne

They adapt SERVQUAL to the NBA spectator's context

Dimensions

Tangibles: physical facilities, equipment, appearance of personal

Reliability: Ability to perform the promised service dependably and accurately

Responsiveness: Willing to help customers and provide prompt service

Assurance/Security: Knowledge and courtesy of employees and their ability to inspire trust and confidence

Empathy: Caring, individualized attention the firm provides its costumers

Service quality measurement

(1995) QUESC: An instrument for assessing service quality of sport centers in Korea. Kim y Kim

They adapt SERVQUAL to the context of customers of public and private sports centers in Korea

12 Dimensions / no importance score / perceptions & expectations

Dimensions

Ambiance

Information

Price

Employee attitude

Programming

Ease of mind

Reliability

Personal Consideration

Stimulation

Social opportunities

Privileges

Convenience/accessibility

Service quality measurement

(1996) CERM: Measuring Customer Service Quality in Sports and Leisure Centres. Howat et al.

They adapt SERVQUAL to the context of leisure and recreation centers

4 dimensions

Importance score

Expectations - perceptions

Dimensions

Core Services

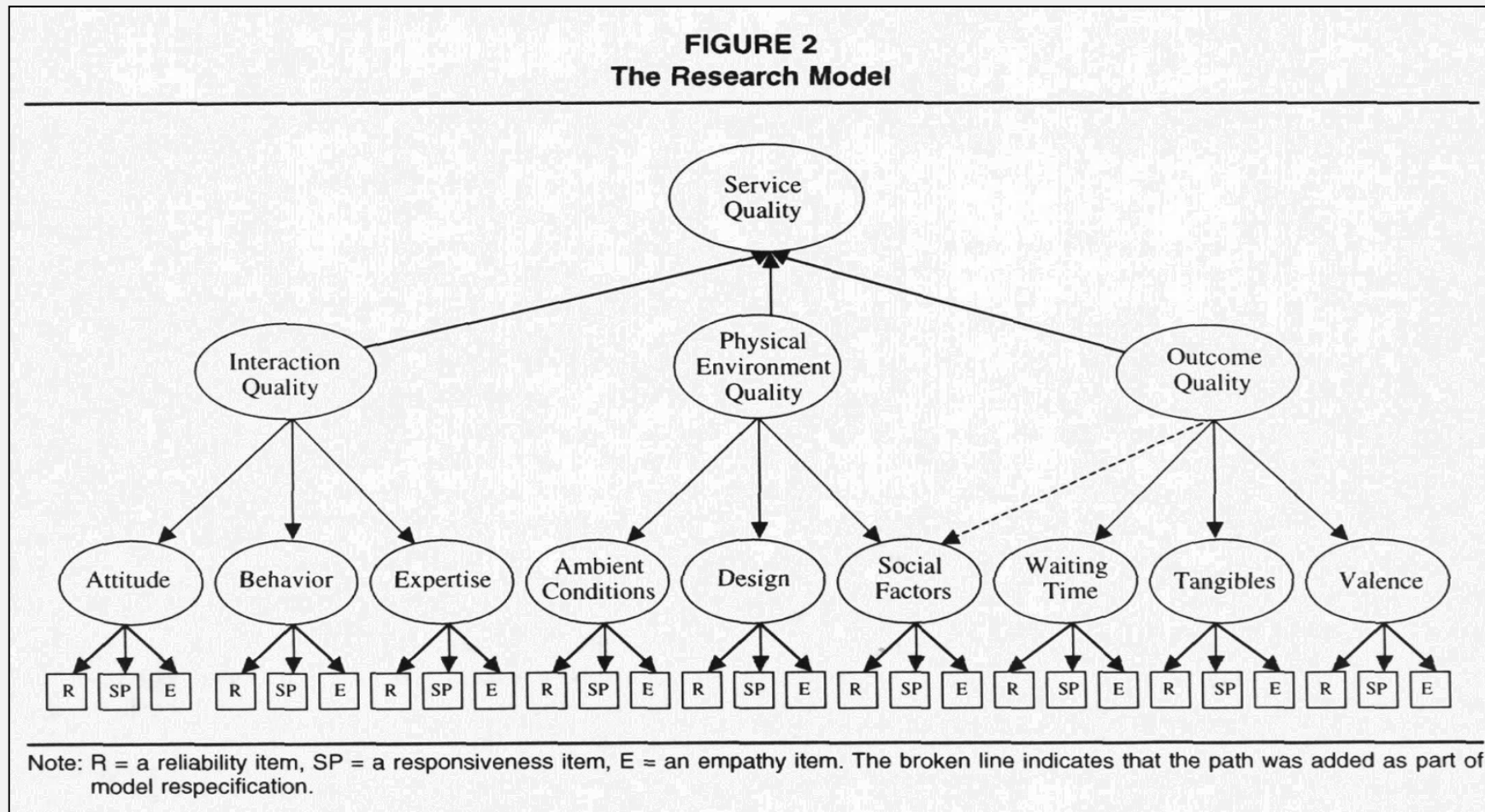
Staff quality

General Facility

Secondary services

Service quality measurement

(2001) Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. Brady and Cronin,.



Service quality measurement



(2001) Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. Brady and Cronin,.

Interaction quality	Physical environment quality	Outcome quality
<i>Behaviour:</i> Employees are willing to give advice Employees take care of safety issues	<i>Design:</i> Facilities have up-to-date equipment Skiing slopes are well maintained	Skiing helped me to: Relax Exercise Refresh Socialize Have fun
<i>Attitudes:</i> Employees are friendly	<i>Ambient conditions:</i> Facilities are clean Supportive services (e.g. toilets, rest areas) are well maintained	
<i>Expertise:</i> Employees are knowledgeable	<i>Social:</i> There is a nice atmosphere in the resort Lifts are usually crowded (negative)	



Service quality measurement

(2005) SSQRS: A hierarchical model of SQ for Recreational sport industry. Ko y Pastore.

They adapt Brady and Cronin model to the context of the students in a university sports center

11 dimensions

No importance score

Just perceptions



Service quality measurement

(2016) Outcome quality in participant sport and recreation service quality models: Empirical results from public aquatic centers in Australia. Howat y Assaker.

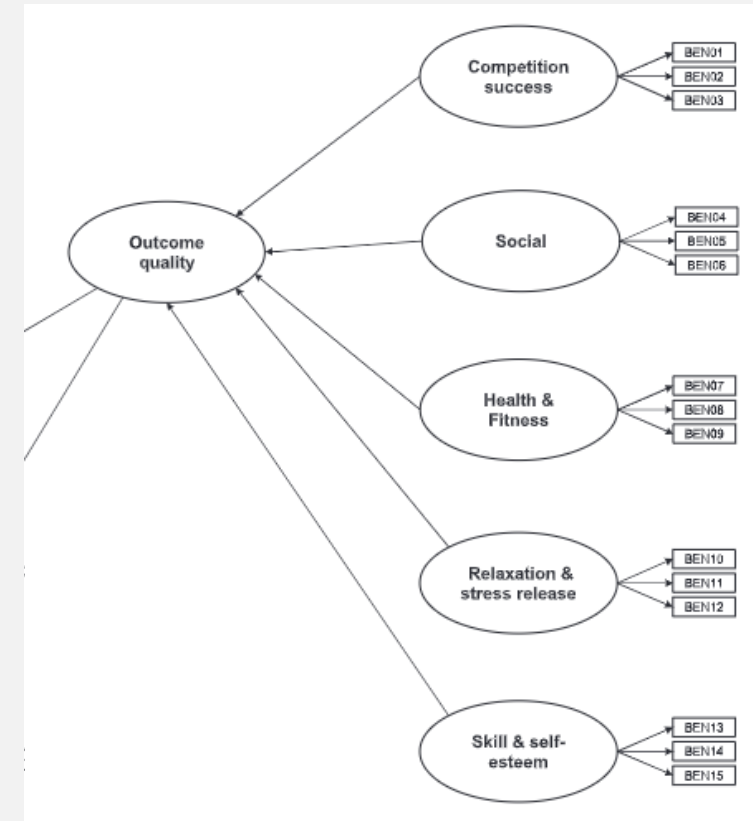
They adapt Brady and Cronin model (and others) to the context of aquatic centers with health and fitness services

Process quality and Outcome quality

5 Outcome quality dimensions

No importance score

Just perceptions



Service quality measurement

García-Fernández, J., Cepeda, G., & Ruíz, D. M. (2012). La satisfacción de clientes y su relación con la percepción de calidad en Centro de Fitness: utilización de la escala CALIDFIT. Revista de Psicología del Deporte, 21(2), 309-319.

Dimensión	Ítems
Personal	SP ₁ El personal de recepción me parece amable
	SP ₂ El personal de fitness me parece amable
	SP ₃ El personal de piscina me parece amable
	SP ₄ Hay el suficiente número de técnicos en la sala de fitness
	SP ₅ El técnico es respetuoso con el horario en actividades dirigidas
	SP ₆ Estoy contento con el trato dispensado por el técnico
	SP ₇ Creo que presta el técnico una atención adecuada a los usuarios desde el primer día
	SP ₈ Creo que el técnico adapta las clases a los intereses-necesidades de los usuarios
	SP ₉ Considero que el técnico anima suficientemente al grupo
	SP ₁₀ El personal de servicio está cuando se le necesita y siempre está dispuesto a ayudarme
	SP ₁₁ Percibo que el técnico tiene las clases bien planificadas
Instalaciones y material	SIM ₁ Los vestuarios están limpios
	SIM ₂ Los vestuarios son amplios
	SIM ₃ Las instalaciones están limpias
	SIM ₄ La temperatura es la adecuada
	SIM ₅ La humedad es la adecuada
	SIM ₆ Existe un olor agradable
	SIM ₇ Se dispone de suficiente maquinaria cardiovascular
	SIM ₈ Se dispone de suficiente maquinaria de fuerza
	SIM ₉ Se dispone de suficiente peso libre
	SIM ₁₀ Se dispone de suficiente material para las clases
	SIM ₁₁ El material está en condiciones óptimas para su uso
	SIM ₁₂ El material es moderno
	SIM ₁₃ La seguridad de la instalación es la adecuada

Servicios y actividades

SAS ₁	El seguimiento en la sala de fitness es el adecuado
SAS ₂	La oferta de actividades se actualiza
SAS ₃	Las actividades son amenas
SAS ₄	Las tareas que desarrolla en las clases son lo suficientemente variadas
SAS ₅	Los horarios son convenientes para los usuarios
SAS ₆	Las actividades finalizan en el tiempo indicado
SAS ₇	Estoy informado sobre los beneficios de las actividades
SAS ₈	La información sobre las actividades que se desarrollan en el centro es adecuada
SAS ₉	Me ha resultado sencillo incorporarme en la actividad que participa

Imagen de la organización

SIO ₁	Disponen las instalaciones de algún medio para transmitir sus sugerencias (buzón de sugerencias, tablón de anuncios)
SIO ₂	La percepción de los demás usuarios sobre la organización en general es buena
SIO ₃	Hay buena relación entre el personal de la instalación

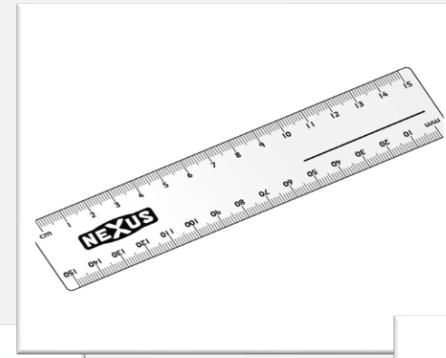
Satisfacción con la organización

SAT ₁	En general estoy satisfecho con el personal del centro
SAT ₂	En general estoy satisfecho con las instalaciones y el material
SAT ₃	En general estoy satisfecho con los servicios y actividades que se ofertan
SAT ₄	Estoy satisfecho con la relación calidad/precio del servicio en general
SAT ₅	Mi impresión de la organización en general es buena

Personnel/ facilities and equipment/ activities and services/ image/ satisfaction

Measurement scales

The importance of the evaluation



Departamento de
Universidad de

Fecha: _____ Hora: _____ Duración: _____
Signatura: _____ N° personal: _____

De acuerdo con tu experiencia previa de aprendizaje, valora de 1 (muy baja) a 5 (muy alta) tu aptitud o capacidad actual para:

Comprender e interpretar críticamente la información contenida en textos escritos	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Comunicarte correctamente por escrito	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Comunicar tus ideas oralmente en diferentes contextos	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Comprender e interpretar la información contenida en textos escritos en otro idioma	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Expresarte por escrito en otro idioma	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Expresarte oralmente en otro idioma	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Buscar información en diversas fuentes	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Analizar y sintetizar la información	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Resolver problemas	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Manejar diferentes aplicaciones informáticas básicas	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Organizar tu tiempo y afrontar tu trabajo habitual	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Utilizar técnicas de aprendizaje eficaces	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Aplicar los conocimientos en la práctica	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Trabajar en equipo con responsabilidad y flexibilidad	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Adaptarte a nuevas situaciones	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Realizar tu propia evaluación	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Preocuparte por la calidad de tu trabajo	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5



Measurement scale

The importance of the evaluation

- In research, quality and evaluation are inseparable.
- The questionnaire is the most used data collection technique (-expensive, +subj.)
- It allows to quantify and universalize the information, as well as to standardize the procedure
- The scales are intended to measure a concept or construct (attitudes, beliefs,...).

Measurement scales

All the scales are valid?

- Be suitable for measuring the problem to be measured
- Be reliable, accurate.
- Be sensitive, able to capture changes
- Delimit its components (dimensions)
- Based on data generated by its "administered"
- Be accepted by the professional and scientific community

- Define the construct (review, experts,...)
- Composition of the items (number, content, definition and order)
- Bias prevention (central tendency, social desirability, learning bias)
- Coding of responses (dichotomous, polychotomous,...)
- Item scoring (simple or weighted)
- Psychometric properties (reliability and validity)

Measurement scales

what is measuring?

“assign numbers to objects and events according to rules”

(Stevens, 2001)



Do we work with objects or events in social research?

“is the process of linking abstract concepts with empirical indicators”

(Carmines y Zeller, 1988, p. 10)



Measurement scales

Measuring instruments

"It is a resource that the researcher uses to record information or data about the variables that he has in mind.

(Hernández, Fernández y Baptista, 2003, p. 346)

EN LA SEGÜENT TAULA TROBARÀS UNA SÈRIE D'ADJECTIUS DOBRE L'ESPORT TOTALMENT OPOSATS. INDICA EN QUIN GRAU ESTÀS D'ACORD AMB ELS ADJECTIUS D'UNA O UNA ALTRA COLUMNA.

Per exemple:

L'esport és:
Divertit | 1 | 2 | 3 | 4 | 5 | avorrit

Si marques 1 voldrà dir que estàs totalment d'acord en què l'esport és divertit.
Si marques 5 voldrà dir que estàs totalment d'acord en què l'esport és avorrit.

L'ESPORT ÉS:

1	AMISTAT	1	2	3	4	5	ENEMISTAT
2	SALUT	1	2	3	4	5	MALALITIA
3	DIVERTIT	1	2	3	4	5	AVORRIT
4	FÀCIL	1	2	3	4	5	DIFÍCIL
5	BO	1	2	3	4	5	ROÏN
6	TREBALL	1	2	3	4	5	OCI
7	EQUIP	1	2	3	4	5	INDIVIDU
8	HONEST	1	2	3	4	5	DESHONEST
9	NO SEXISTA	1	2	3	4	5	SEXISTA
10	RESPECTE A LES NORMES	1	2	3	4	5	TRAMPÓS
11	PACÍFIC	1	2	3	4	5	VIOLENT
12	APROFITAR EL TEMPS	1	2	3	4	5	PERDRE EL TEMPS
13	EVASIÓ	1	2	3	4	5	OBLIGACIÓ
14	LLEIALTAT	1	2	3	4	5	TRAÏCIÓ
15	NATURAL	1	2	3	4	5	ARTIFICIAL
16	AMATEURISMO	1	2	3	4	5	PROFESSIONALISME
17	EXTRAVERTIT	1	2	3	4	5	INTROVERTIT
18	SEGUR	1	2	3	4	5	PERILLÓS
19	GUANYAR	1	2	3	4	5	PERDRE
20	DISCIPLINA	1	2	3	4	5	INDISCIPLINA
21	EDUCATIU	1	2	3	4	5	NO EDUCATIU
22	RECREACIÓ	1	2	3	4	5	COMPETICIÓ
23	PLAER	1	2	3	4	5	DOLOR
24	ENRIQUIDOR EN RELACIONS	1	2	3	4	5	EMPROBRIDOR EN RELACIONS

EL FUTBOL ÉS:

1	AMISTAT	1	2	3	4	5	ENEMISTAT
2	SALUT	1	2	3	4	5	MALALITIA
3	DIVERTIT	1	2	3	4	5	AVORRIT
4	FÀCIL	1	2	3	4	5	DIFÍCIL
5	BO	1	2	3	4	5	ROÏN
6	TREBALL	1	2	3	4	5	OCI
7	EQUIP	1	2	3	4	5	INDIVIDU
8	HONEST	1	2	3	4	5	DESHONEST
9	NO SEXISTA	1	2	3	4	5	SEXISTA
10	RESPECTE A LES NORMES	1	2	3	4	5	TRAMPÓS
11	PACÍFIC	1	2	3	4	5	VIOLENT
12	APROFITAR EL TEMPS	1	2	3	4	5	PERDRE EL TEMPS
13	EVASIÓ	1	2	3	4	5	OBLIGACIÓ
14	LLEIALTAT	1	2	3	4	5	TRAÏCIÓ
15	NATURAL	1	2	3	4	5	ARTIFICIAL
16	AMATEURISMO	1	2	3	4	5	PROFESSIONALISME
17	EXTRAVERTIT	1	2	3	4	5	INTROVERTIT
18	SEGUR	1	2	3	4	5	PERILLÓS
19	GUANYAR	1	2	3	4	5	PERDRE
20	DISCIPLINA	1	2	3	4	5	INDISCIPLINA
21	EDUCATIU	1	2	3	4	5	NO EDUCATIU
22	RECREACIÓ	1	2	3	4	5	COMPETICIÓ
23	PLAER	1	2	3	4	5	DOLOR
24	ENRIQUIDOR EN RELACIONS	1	2	3	4	5	EMPROBRIDOR EN RELACIONS

Measurement scales

Measuring instruments: response types

Basic scales

Nominal

Ordinal

Of Intervals

Of Ratios

Comparative scales

Of classification

Of Constant sum

Guttman

No comparative scales

Likert

Semantic differential

Measurement scales

Measuring instruments: response types

Nominal: assigns numbers to attributes for easy identity.

1- men - 2-women

Basic scales

Nominal

Ordinal

Of Intervals

Of Ratios

Ordinal Ordinal Scale involves the ranking or ordering of the attributes depending on the variable being scaled

Once a week - twice a week - three times a week

Of Intervals: levels are ordered and have equal interval difference. If it is an extension of the ordinal scale, with the main difference being the existence of equal intervals

I'll assist - I'll probably assist - I'll probably not assist – I'm sure I'll not assist

Of Ratios: This level of data measurement allows the researcher to compare both the differences and the relative magnitude of numbers.

Less than 1.000€ - between 1.000€ and 2.000 – more than 2.000€

Measurement scales

Measuring instruments: response types

Comparative scales

Of classification

Of Constant sum

Guttman

Classification: respondents are simultaneously provided with multiple options and asked to rank them in order of priority based on a predefined criterion.

València - Murcia - Madrid

Constant sum: respondents are asked to allocate a constant sum of units such as points among the stimulus objects according to some specified criterion.

Price - facilities - equipment

Guttman: It tests how a person responds to a specific topic and measures how positively or negatively a person reacts to a subject.

No studies - primary studies – secondary studies – University studies

Measurement scales

Measuring instruments: response types

No comparative scales

Likert

Semantic differential

Likert: is used to order a list of attributes from the best to the least. This scale uses adverbs of degree like very strongly, highly, etc. to indicate the different levels.

1 means strongly disagree and 7 strongly agree

Sport is necessary in life	1	2	3	4	5	6	7
----------------------------	---	---	---	---	---	---	---

Semantic differential: rating scale with endpoints associated with bipolar labels (e.g. good or bad, happy, etc.)

Sport is:

BORING	1	2	3	4	5	FUN
--------	---	---	---	---	---	-----

Measurement scales

Measuring instruments: standardized scales

standardized scales

LOV

LOV Scale used to identify lifestyles, which aims to measure different values of the interviewees.

SERPERF

SERVPERF: It is a scale similar to SERVQUAL, focused on measuring the perceived quality of services, through customer satisfaction.

SERVQUAL

SERVQUAL: Scale that tries to measure the quality of services, both expected and perceived.

VALS

VALS: Measures lifestyles based on a set of values and attitudes.

Measurement scales

Measuring instruments: adaptation of validated scales

Take into account that the scales are developed in a specific cultural context. Sometimes they need a more than literal adaptation to apply it in our context.

- Properly study the administration protocol.
- Carry out an adaptation to the context item by item.
- Perform the translation by the reverse translation method (translation in both directions).
- Initial pilot test: with a reduced sample (N=20-40) and analyse comprehension, duration,...
- Definitive pilot test: With a larger sample (N= 60-200) reliability analysis, validity analysis and factor analysis (AFE, AFC). In AFC $N \geq 200$

Measurement scales

Measuring instruments

"It is a resource that the researcher uses to record information or data about the variables that he has in mind.

(Hernández, Fernández y Baptista, 2003, p. 346)

EN LA SEGÜENT TAULA TROBARÀS UNA SÈRIE D'ADJECTIUS DOBRE L'ESPORT TOTALMENT OPOSATS. INDICA EN QUIN GRAU ESTÀS D'ACORD AMB EL'S ADJECTIUS D'UNA O UNA ALTRA COLUMNA.

Per exemple:

Divertit | 1 | 2 | 3 | 4 | 5 | avorrit

L'esport és:

What requirements must a measuring instrument meet?

4	FACIL	1	2	3	4	5	DIFICIL
5	BO	1	2	3	4	5	ROÏN
6	TREBALL	1	2	3	4	5	OCI
7	EQUIP	1	2	3	4	5	INDIVIDU
8	HONEST	1	2	3	4	5	DESHONEST
9	NO SEXISTA	1	2	3	4	5	SEXISTA
10	RESPECTE A LES NORMES	1	2	3	4	5	TRAMPÓS
11	LENT	1	2	3	4	5	VELOC
12	EL TEMPS	1	2	3	4	5	EL TEMPS
13	AGACIÓ	1	2	3	4	5	AGACIÓ
14	ICIÓ	1	2	3	4	5	ICIÓ
15	ICIAL	1	2	3	4	5	ICIAL
16	ONALISME	1	2	3	4	5	ONALISME
17	VERTIT	1	2	3	4	5	VERTIT
18	SEGUR	1	2	3	4	5	PERILLÓS
19	GUANYAR	1	2	3	4	5	PERDRE
20	DISCIPLINA	1	2	3	4	5	INDISCIPLINA
21	EDUCATIU	1	2	3	4	5	NO EDUCATIU
22	RECREACIÓ	1	2	3	4	5	COMPETICIÓ
23	PLAER	1	2	3	4	5	DOLOR
24	ENRIQUIDOR EN RELACIONS	1	2	3	4	5	EMPROBRIDOR EN RELACIONS

Reliable

4	FACIL	1	2	3	4	5	DIFICIL
5	BO	1	2	3	4	5	ROÏN
6	TREBALL	1	2	3	4	5	OCI
7	EQUIP	1	2	3	4	5	INDIVIDU
8	HONEST	1	2	3	4	5	DESHONEST
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12	EL TEMPS	1	2	3	4	5	EL TEMPS
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14	ICIÓ	1	2	3	4	5	ICIÓ
15	ICIAL	1	2	3	4	5	ICIAL
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23	PLAER	1	2	3	4	5	DOLOR
24	ENRIQUIDOR EN RELACIONS	1	2	3	4	5	EMPROBRIDOR EN RELACIONS

Valid

Measurement scales

Measuring instruments

RELIABILITY

grade which the instrument always measures the same thing. If applied multiple times, it should always give the same results.

VALIDITY

grade which the instrument measures what it really wants to measure. (content, construct, criteria).



Measurement scales

Measuring instruments

RELIABILITY

tries to determine the influence of random errors (transient effects of the individual or the measurement situation).

Methods to determine reliability

Cronbach's Alpha: just one administration of the questionnaire

Test-Retest: It's applied in two different occasions, and they're correlated

Split-halves: its divided and each part is applied to each half of the sample



Measurement scales

Measuring instruments

VALIDITY

Validity of content: Tries to know is the scale includes all basic or fundamental dimensions regarding the analysis content

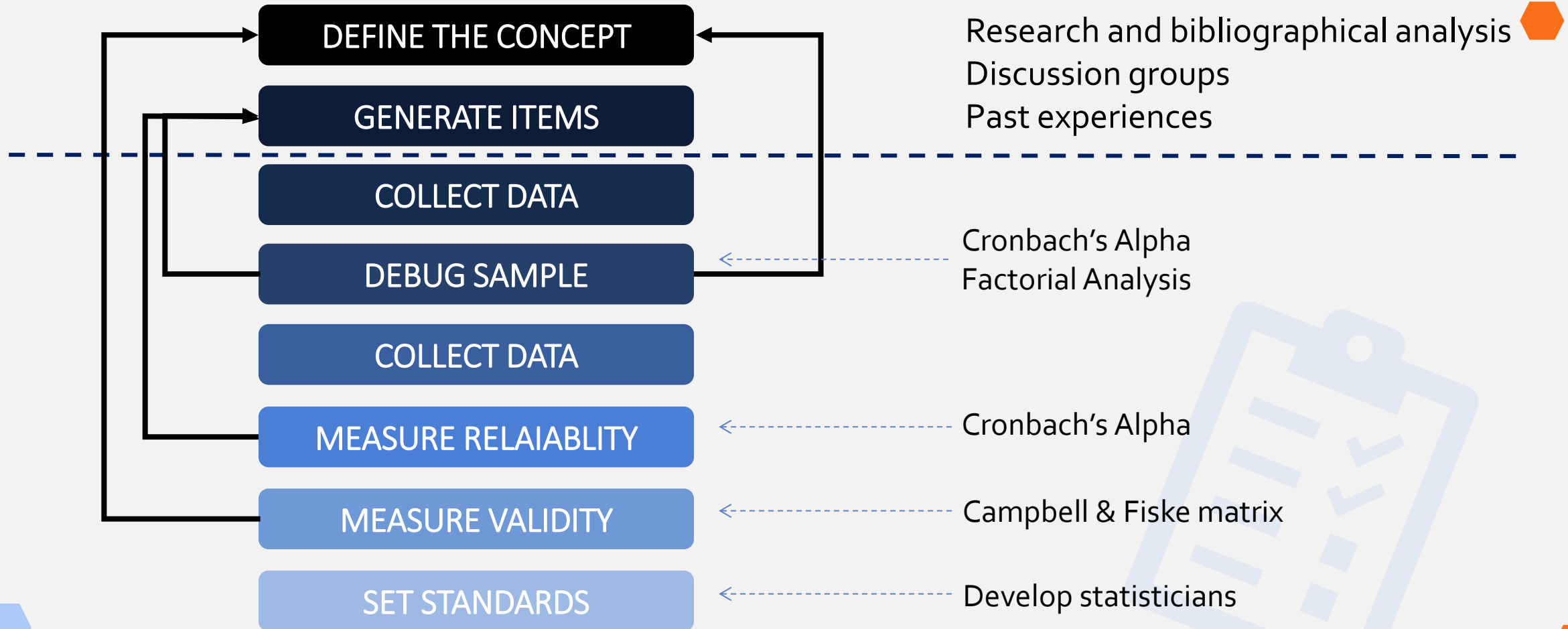
It is normally verified by the subjective judgment of the investigator or several investigators, and by a good review of the specialized literature.

Validity of construct: Tries to know is the scale measures what we pretend to measure
It is confirmed by analysing the internal consistency of the scale, And correlating it with other concepts.

Validity of criteria: Tries to know if the scale allows predicting other related variables
It is verified by correlating it with other concepts that the theory says must be related. And analysing its ability to predict other variables.

Measurement scales

Measuring instruments: elaboration process



(Churchill, 1979)

Measurement scales

Delphi's method:

Using Delphi method to develop a measure of perceived quality of sport event spectators

(Calabuig, F & Crespo, J., 2009)

Delphi method validation of a questionnaire to get experience and interest in water activities with special attention to wind surfing

(Blasco Mira, J. Lopez Padrón, A., Mengual Andres, S., 2010)

Measurement scales

Delphi's method:

It is a method of consulting experts. Which is based on the circulation of a questionnaire among them on which they must exercise a judgment. It is anonymous but knows the answers of the rest of experts. It tries to reach the greatest possible consensus among the experts regarding the fact that is being asked.

- **Type of experts:** Academics, professionals and consumers.
- **Number of experts:** between 7 and 15.
- **Number of circulations:** between 2 and 4.
- **Report:** Statistical information is given (mean, SD, quartiles, median) in a quantitative but also qualitative way (comments,...).
- **Control:** It is exercised by the monitoring group (researchers).

Measurement scales

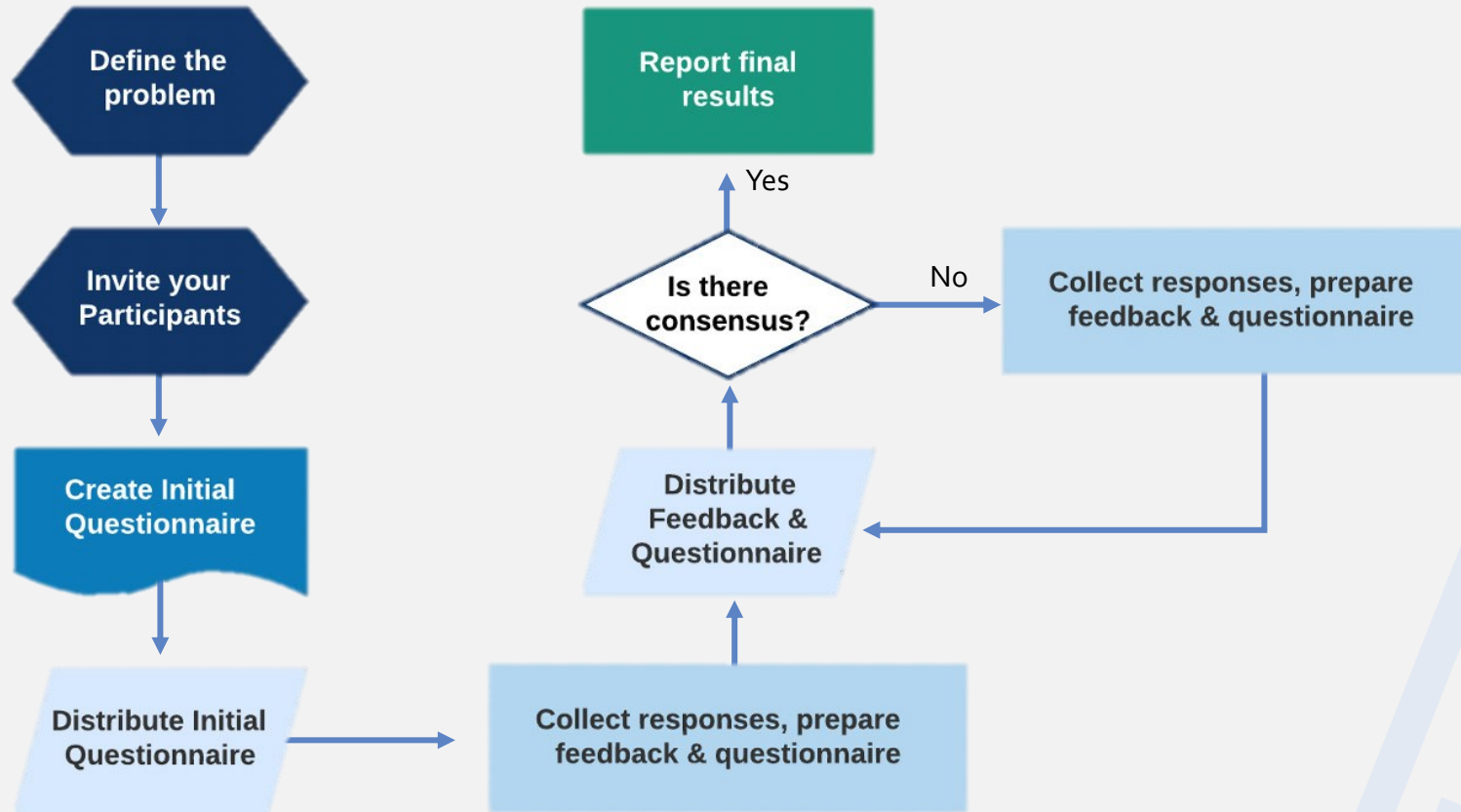
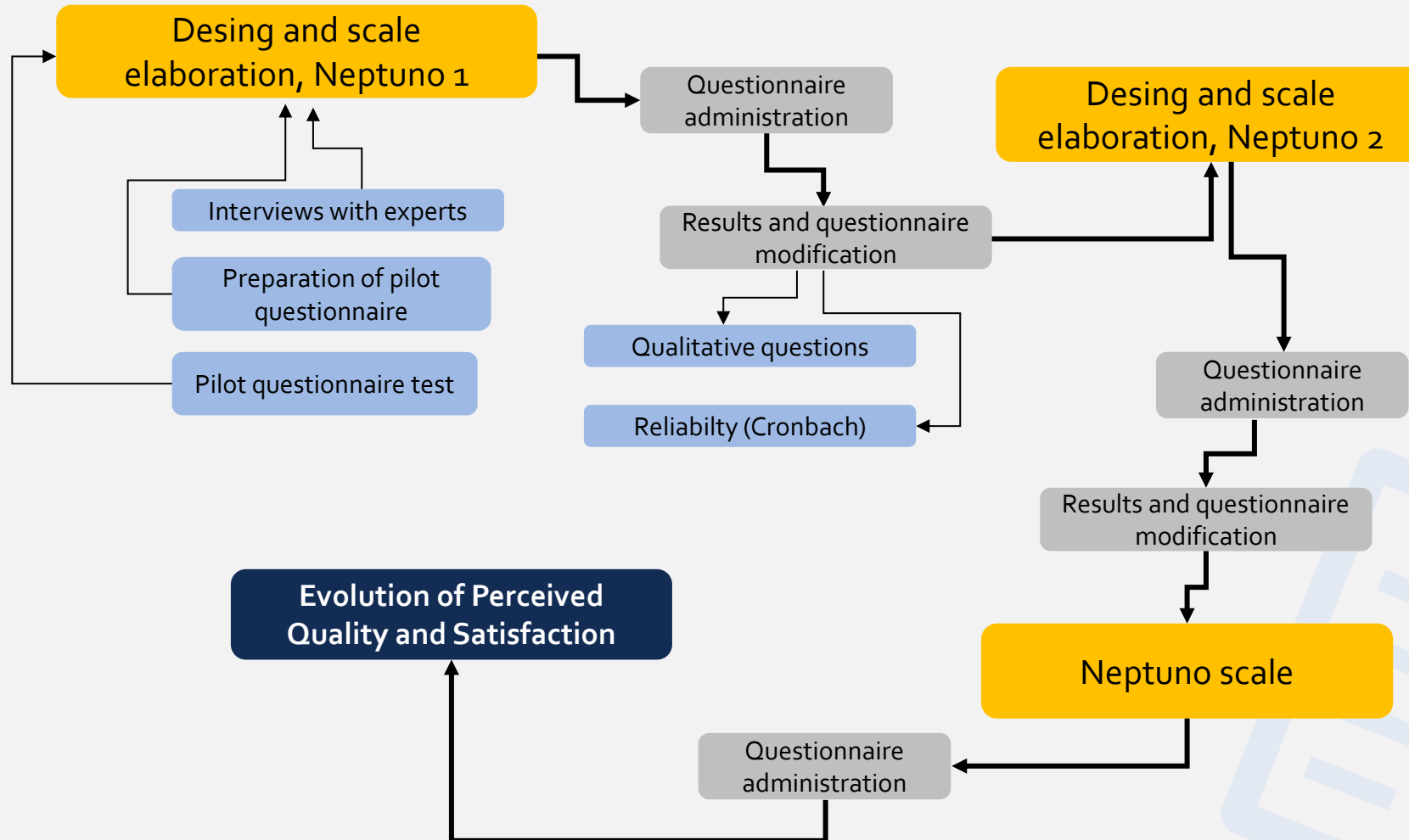


Image: Hirst (2020)

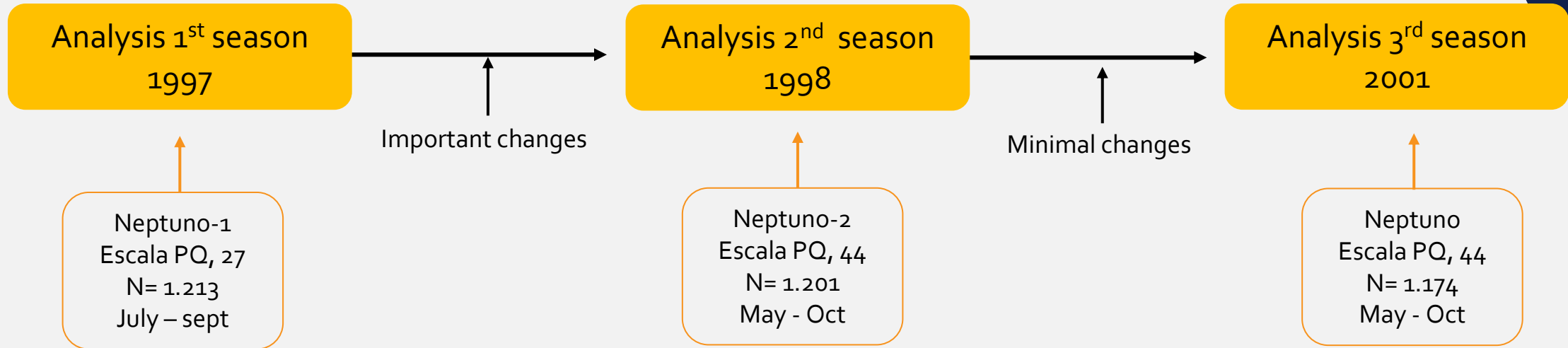
Measurement scales in SM



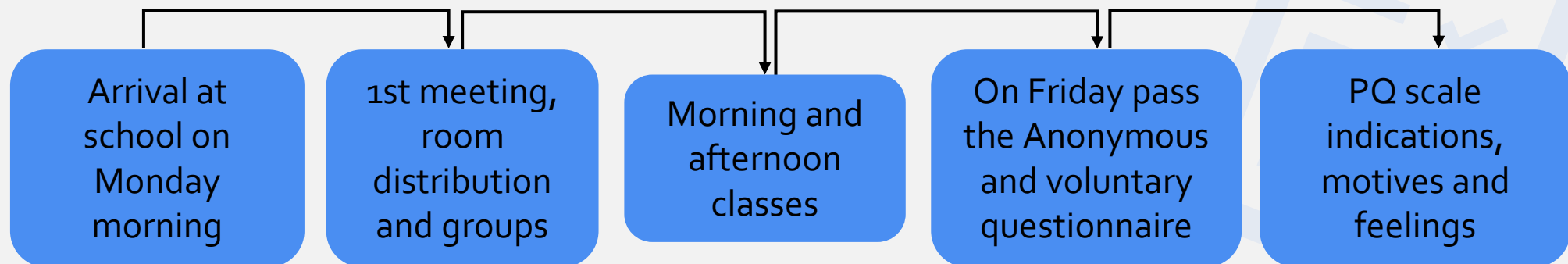
Measurement scales



Measurement scales



Administration process

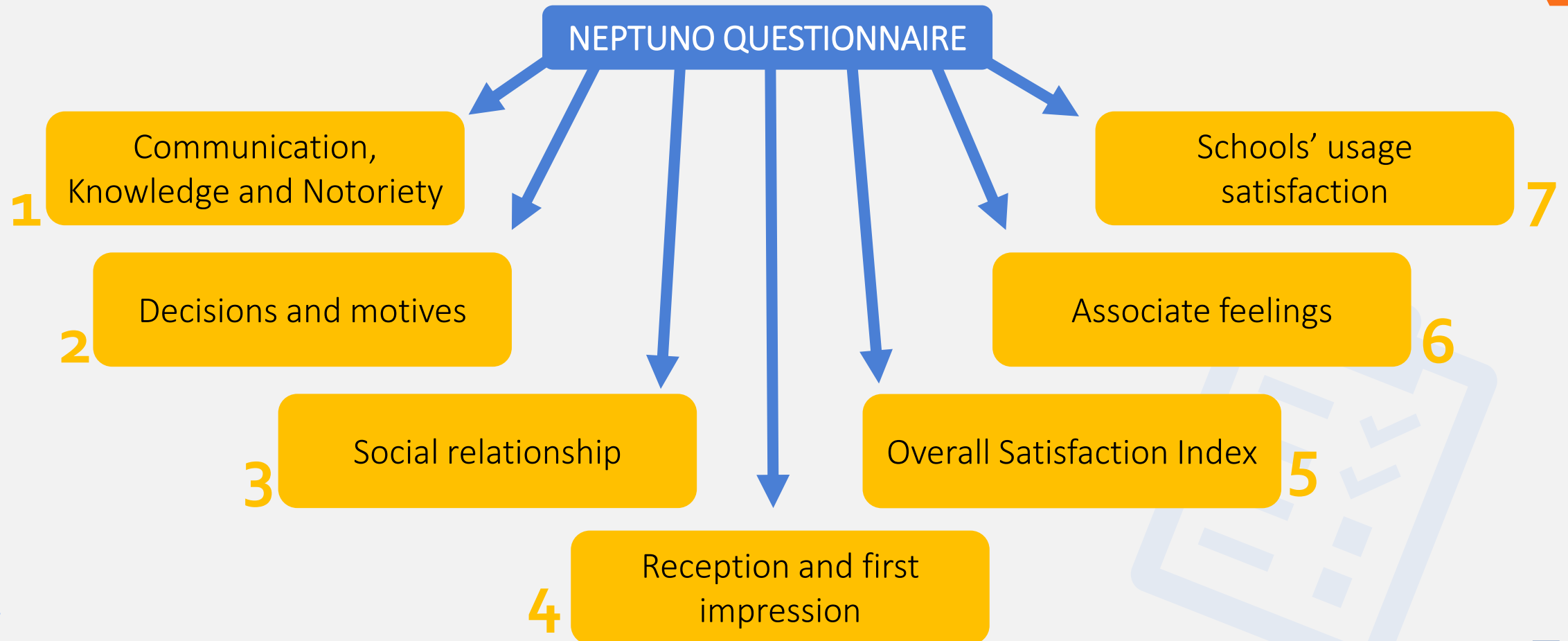


Measurement scales

1st Year: Creation of the NEPTUNO questionnaire

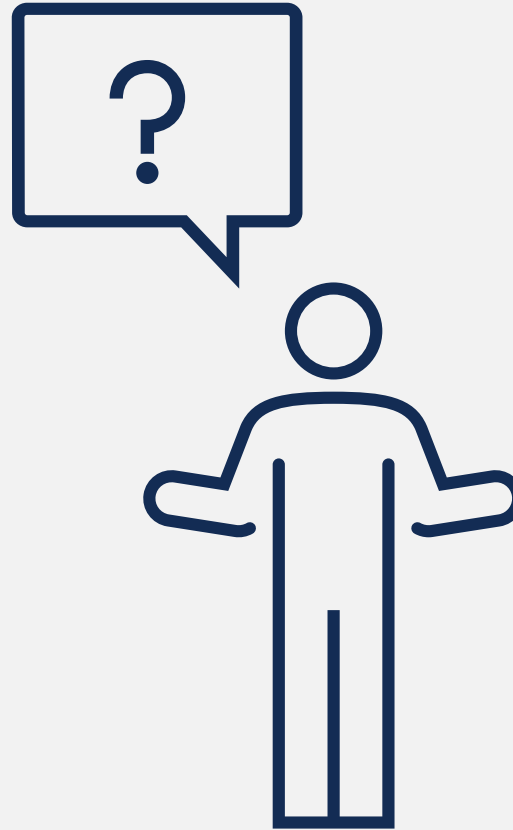
2nd Year: Questionnaire improvement

3rd Year: observation of changes



| How do we apply them

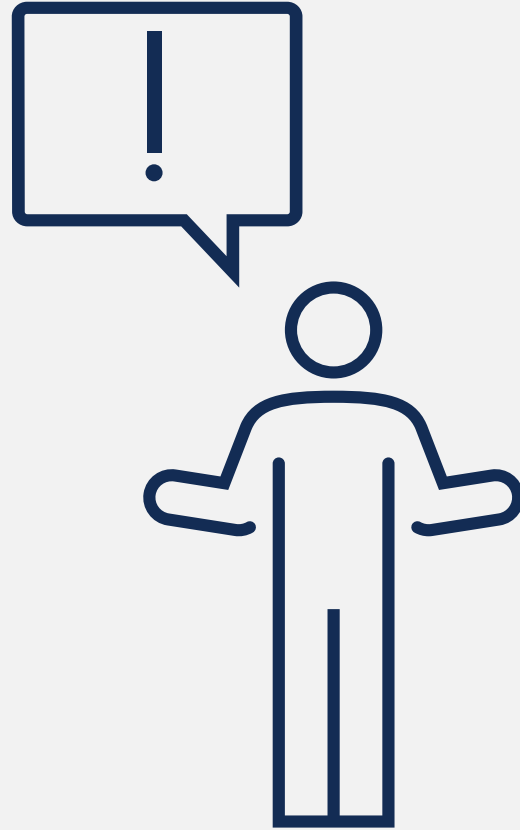
Why should I investigate the quality of my service?



Why we really want satisfied customers?

What we really want as a sports managers?

| How do we apply them

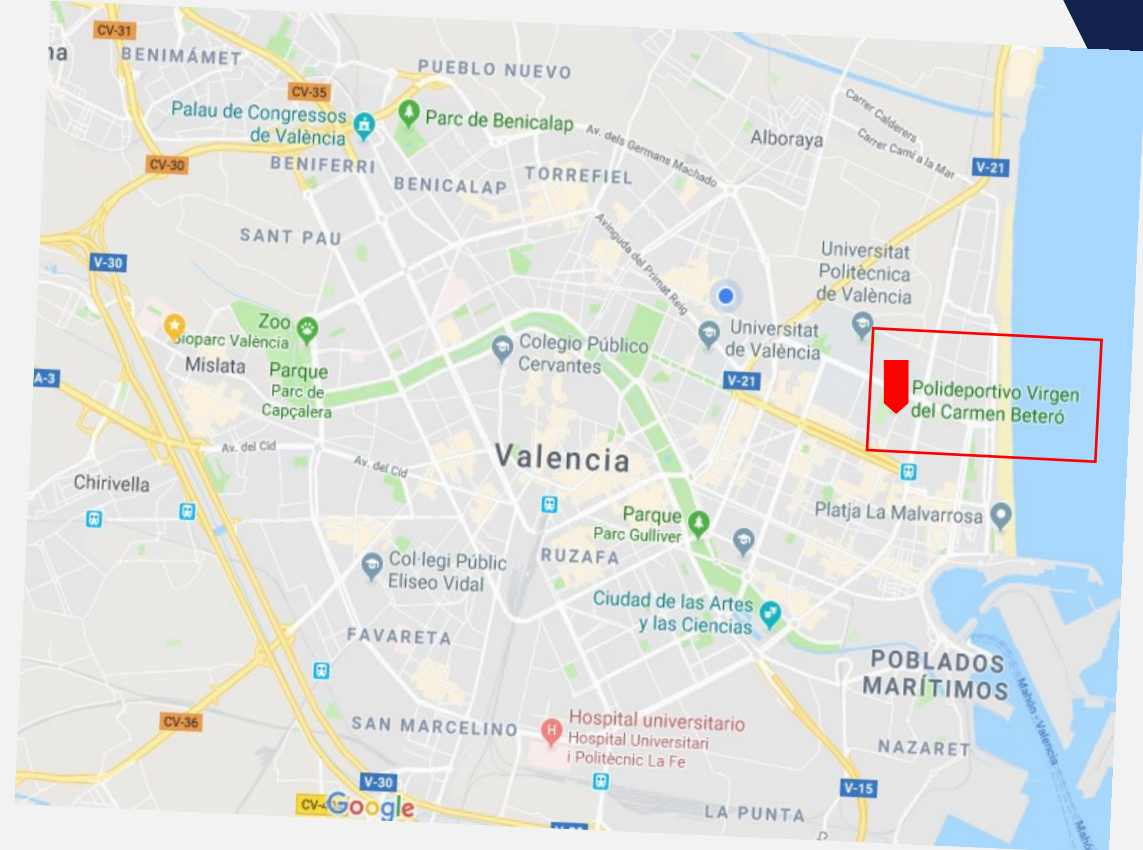


FUTURE INTENTIONS

How do we apply them

Poliesportiu Verge del Carme-Beteró

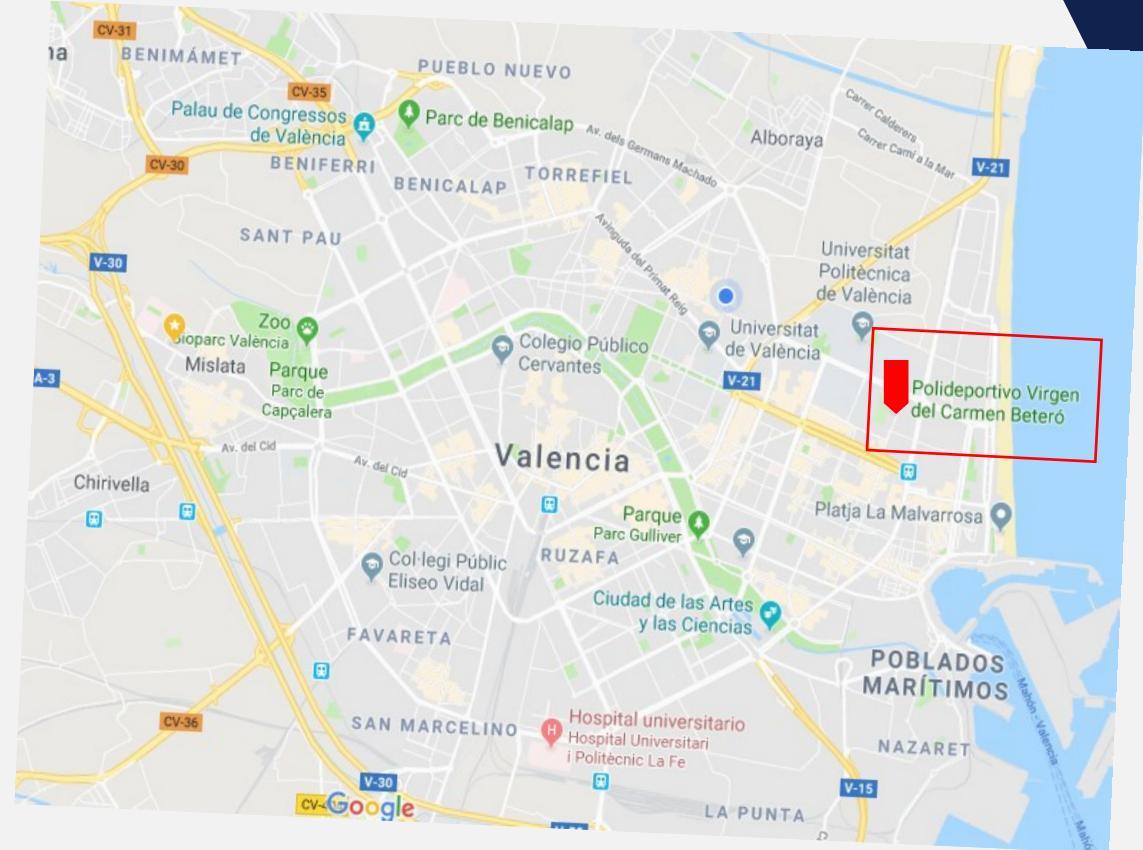
- Municipal Facility
- Built in 2008.
- Beteró (Poblats Marítims).
- Managed by Federació d'Hoquei de la Comunitat Valenciana.



How do we apply them

260 respondents

- within 36 & 55 y/o (51,93%; n=141).
- University degrees (58,07%; n=151).
- Working (55,77%; n=145).
- Living nearby the facility (50%; n=130).
- More than 1 year (71,92%; n=187).



| How do we apply them

DIMENSIONS

Service Quality: ÍTEM 1-42, Ko i Pastore (2005); Gálvez (2011).

Overall Quality: ÍTEM 43-45, Higtower, Brady i Baker (2002) adapted and used by Crespo (2012).

Overall Value: ÍTEM 46-48, Gallarza i Gil (2006) adapted and used by Crespo (2012).

Overall Satisfaction: ÍTEM 49-51, Higtower, Brady i Baker (2002) adapted and used by Crespo (2012).

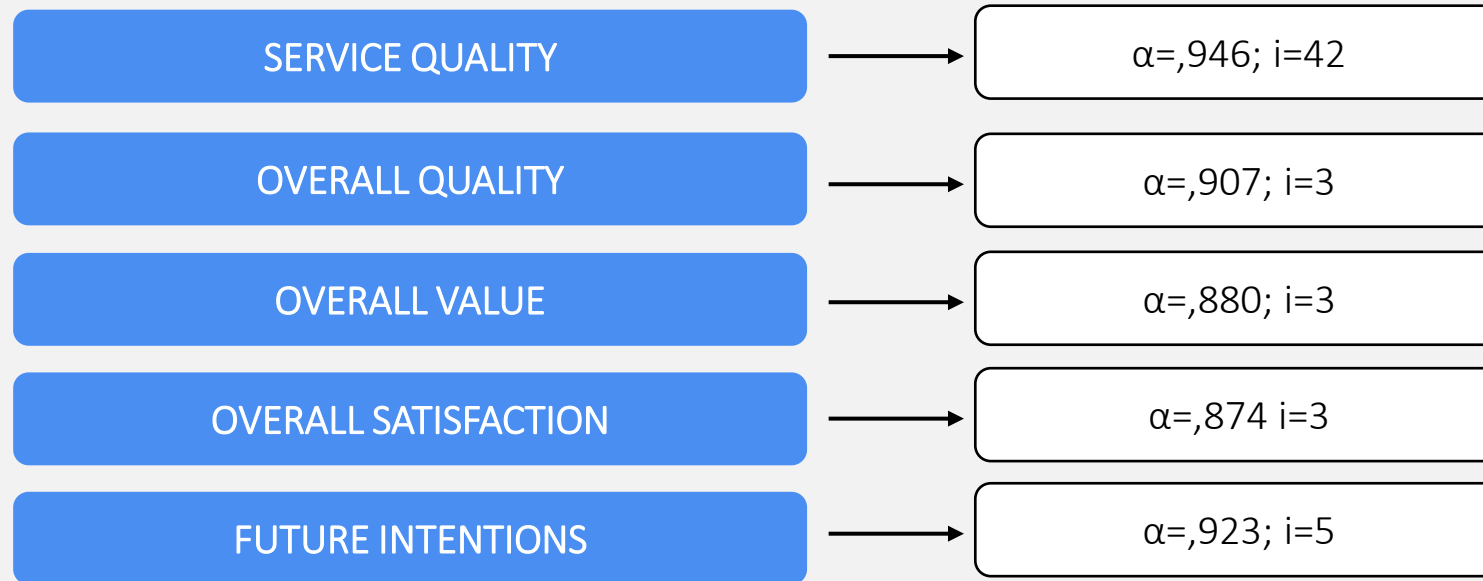
Future Intentions: ÍTEM 52-56, Higtower, Brady i Baker (2002) adapted and used by Crespo (2012).

Assistance motivations: ÍTEM 57, Multi-answers options by preference. García-Ferrando (2011).

Sociodemographics: ÍTEM 58-71, Open answers and Multi-answers options

How do we apply them

RELIABILITY



How do we apply them

RESULTS

Likert scale: 1 to 5

Variables	n	Mean	Td
Service Quality	260	3,95	,528
Overall Quality	260	3,84	,831
Overall Value	260	3,94	,826
Overall Satisfaction	260	4,24	,739
Future Intentions	260	4,16	,778

Variables	n	Mean	Td
Range of program	260	3,85	0,964
Operating time	260	4,02	0,906
Information	260	3,62	0,898
Client employee interaction	260	4,25	0,900
Physical Change	260	4,12	0,882
Value of results	260	4,15	0,857
Sociability	260	4,04	0,920
Ambience	260	4,06	0,887
Design	260	3,81	1,041
Equipement	260	3,73	1,001
Maintenance	260	4,08	0,931
Changing rooms	260	3,85	0,921
Cafetería	260	3,22	1,151

How do we apply them

RESULTS

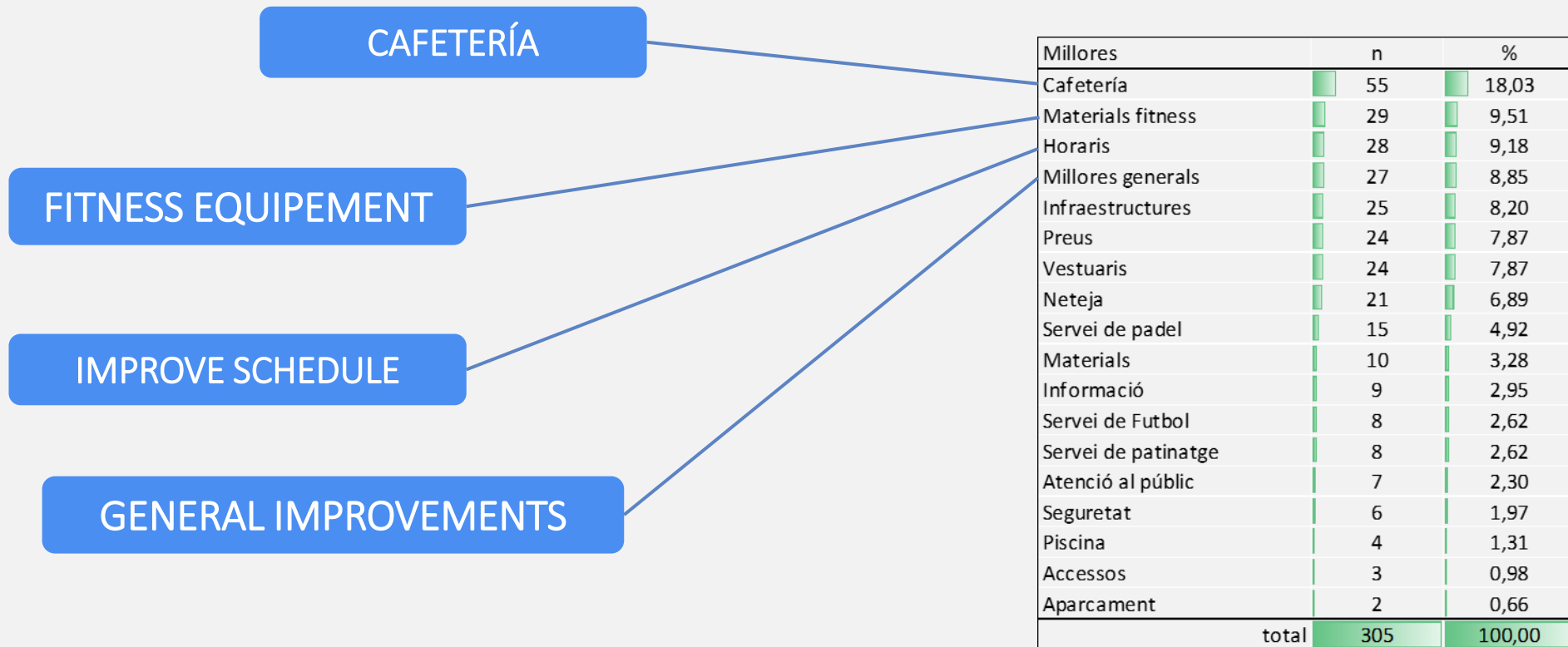
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How do we apply them

RESULTS



How do we apply them

What would you do?

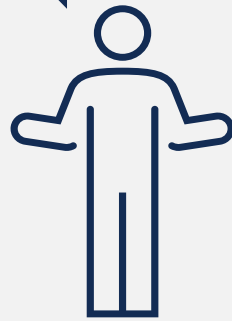
CAFETERÍA

FITNESS EQUIPEMENT

IMPROVE SCHEDULE

GENERAL IMPROVEMENTS

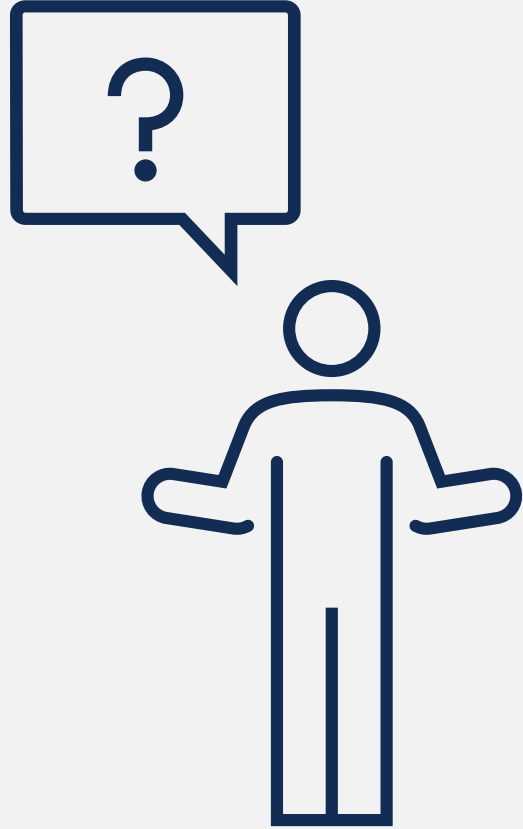
?



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| How do we apply them



What would you have done?

Check the cafeteria service

Improve our information channels

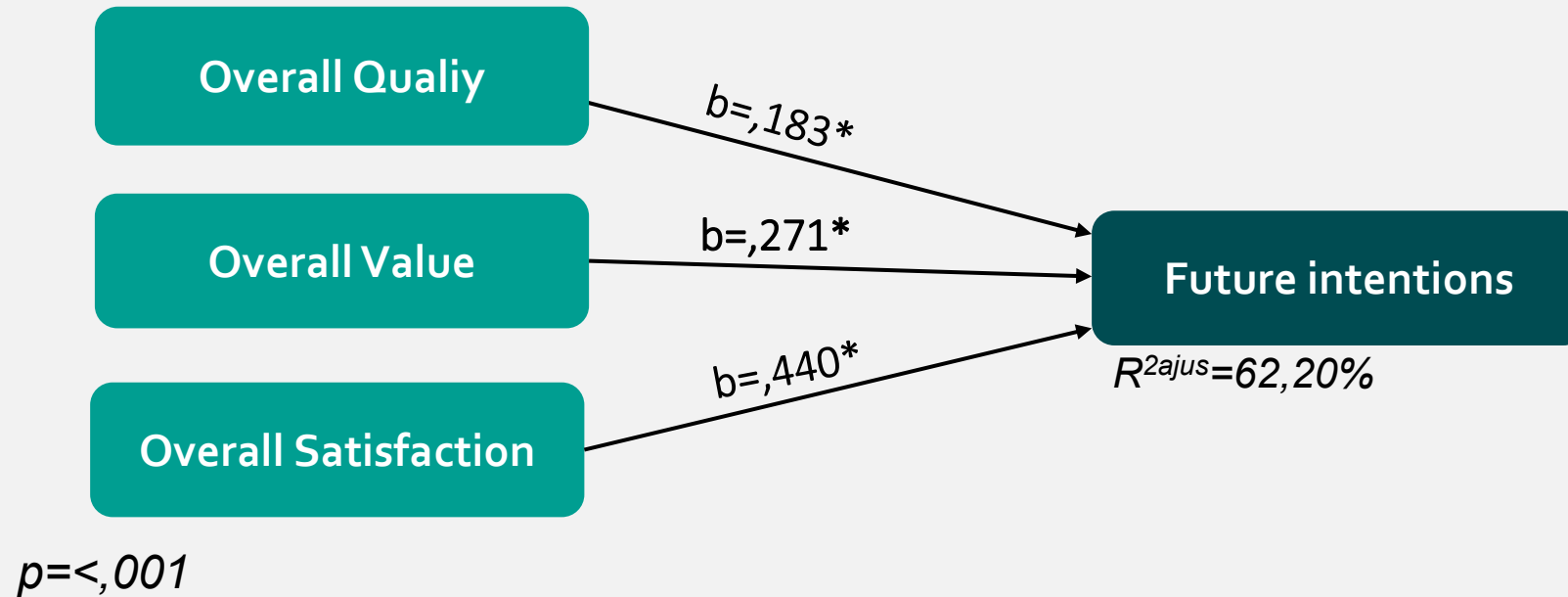
Improve the fitness equipment

Is this enough?



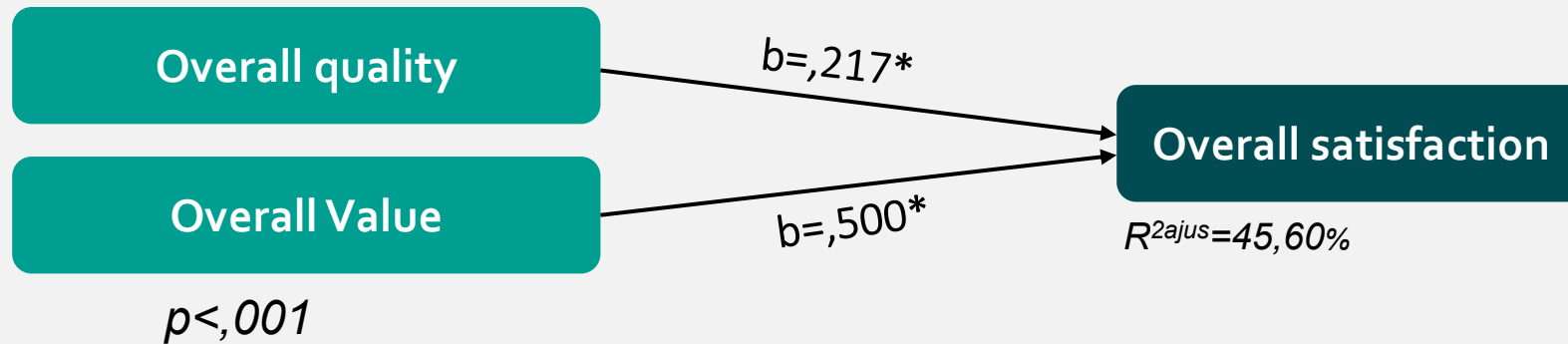
How do we apply them

REGRESSIONS



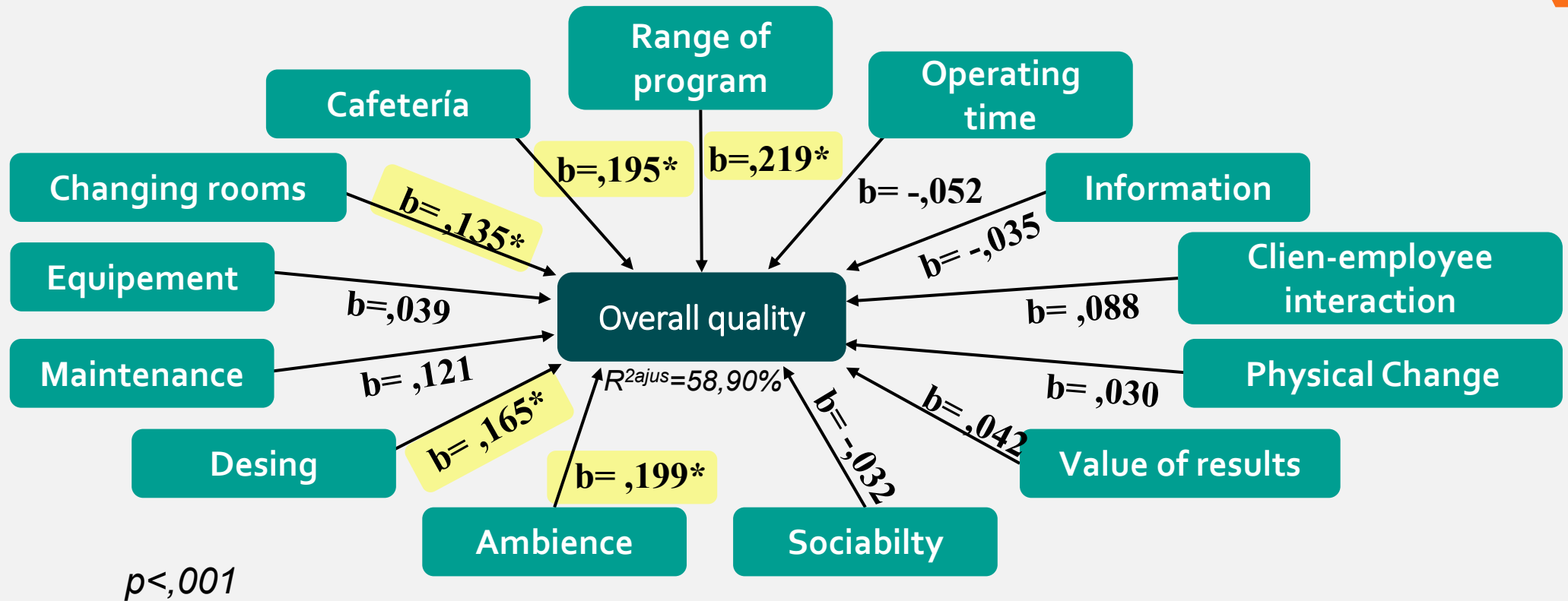
How do we apply them

REGRESSIONS

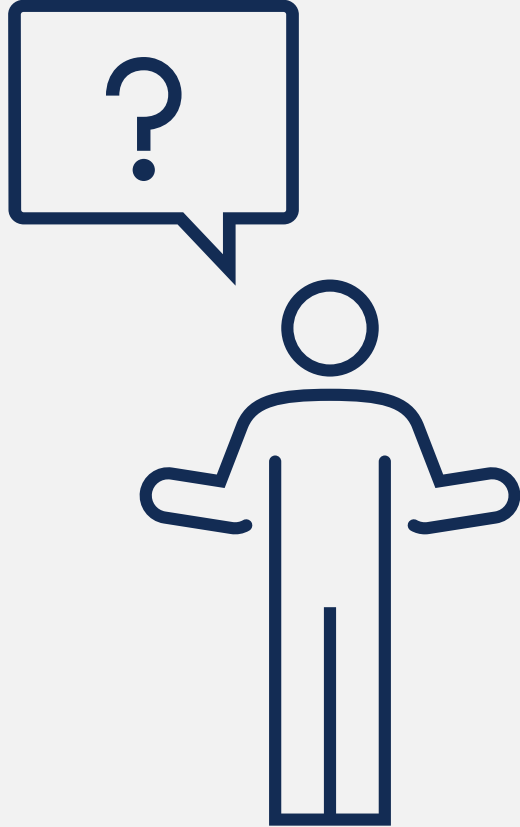


How do we apply them

REGRESSIONS



| How do we apply them



What would you have done?

Check the cafeteria service

Improve our information channels

Improve the fitness equipment

Remodelled and included two more changing rooms

Improve the design of different parts of the facility

Restructured our activities program

Trained our personnel to get a friendly ambience

Aiming towards our goal



Importance – Performance analysis

León-Quismondo, J., García-Unanue, J., & Burillo, P. (2018). Prioridades en la gestión de centros fitness. Aplicación del análisis de importancia-valoración. *Journal of Sports Economics & Management*, 8(3), 116-136

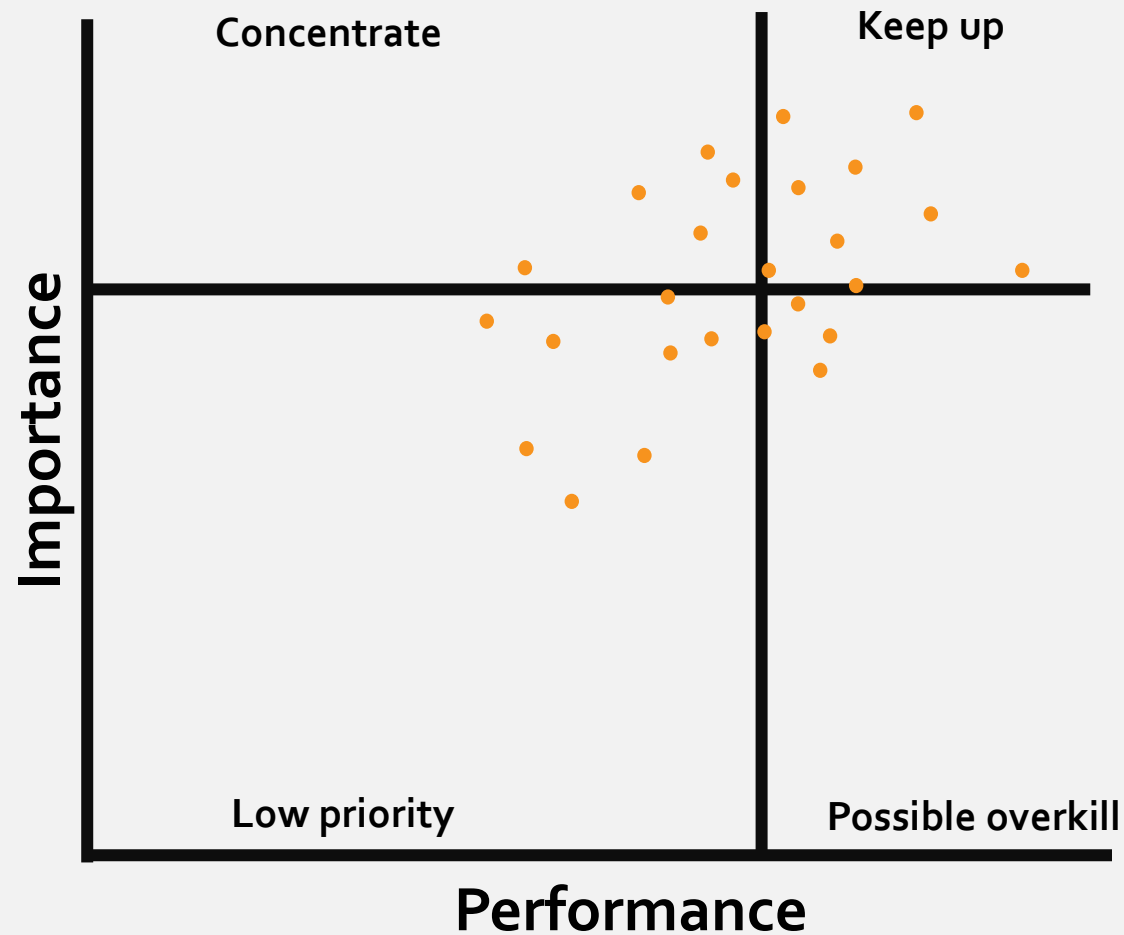
Aiming towards our goal

Importance – Performance analysis



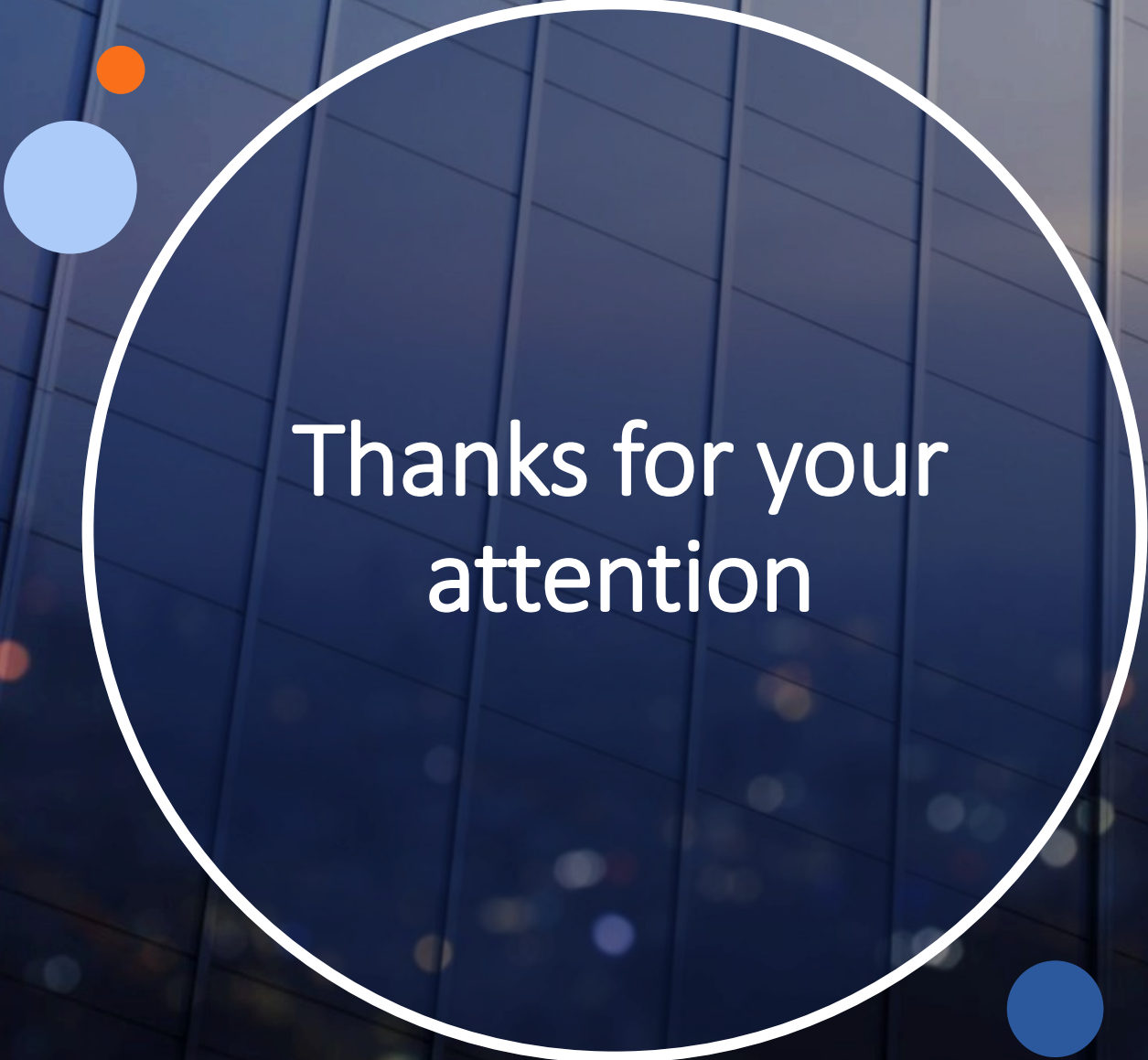
Aiming towards our goal

Importance – Performance analysis



| Conclusions

- It is necessary to investigate-inquire into the needs and motives of the client-user
- Research through empirical data helps in management decision making
- Management improvements must translate into quality increases that are perceptible by the user and that have an impact on their overall satisfaction.



Thanks for your
attention

Contact:

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Master's degree in

Management in Business Administration