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TRANSLATING POPULAR MANAGEMENT IDEAS:
THE INTERPLAY BETWEEN STANDARDISATION AND CUSTOMISATION

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#### Introduction

It has been argued that organisations to an increasing degree appear to use similar organisational philosophies regardless of what they do and the context in which they operate. Total quality management is a case in point. It has been argued that although being mainly a "Japanese invention" it has been transferred across countries and used all over regardless culture and contexts, apparently ignoring the contingency —cultural theories predictions, and leading to an increasing homogenisation.

In this context, the diffusion theory has focused on how practices are adopted, and why they become "fashions" (cf. Abrahamson, 1996). Similarly, the neo-institutional theory (DiMaggio and Powell, 1983; Zucker, 1987; Scott and Meyer, 1994) has focused mainly on the determinants of innovation adoption at both institutional and organisational levels. For instance, it has been shown that companies around the world have been driven by normative and/or coercive mechanisms to embark on quality programmes, including the adoption of popular tools and practices and standardised quality management and assurance systems. In addition to such pressures, there might be also mimetic tendencies in the introduction of innovations such as these (DiMaggio and Powell, 1983). However, while researchers have made significant inroads into the determinants of management innovation, and how it contributes for the so-called standardisation process, several issues remain largely unexplored. One major shortcoming is that it does not deeply develop the barriers for the implementation of popular ideas such as TQM neither what happens after their formal adoption. Normally adoption is treated as a discrete phenomena, a yes or no proposition, neglecting to study the implementation process and the possible variations in outcomes (e.g Scott, 1995, Westphal, et al., 1997).

Thus, the chapter uses case studies from the implementation of quality management systems by automobile suppliers in Portugal and Spain to show that the so-called standardisation might exist but only at conceptual level. It favours Hackman and Wageman (1995) argument that under the same TQM banner firms are using a diversity of unrelated practices, which also assume different meanings across organisations. This happens partly because most of the quality ideas are to a certain degree conceptually vague and open to different interpretations (Lillrank, 1995, Czarniawska and Joerges, 1996, Westphal et al., 1997, Zeitz et al., 1999). Under such circumstances, the outcome reflects the interplay between several forces during the implementation process. Some can speed up the standardisation process, whereas others can slow down or even prevent the process. On the one hand firms often receive external help during the implementation

of quality programmes, either from external consultants or from the customer imposing the standard, which is likely to foster mimetic behaviour (DiMaggio and Powell, 1983). On the other hand, firms have different capacities to absorb the ideas transferred to them (Cohen and Levinthal, 1990), they have differing previous experiences and operate in different contexts (Nelson and Winter, 1982, Whitley, 1992), and these can slow down or even prevent the standardisation process.

The next section discusses the potential for the so-called homogenisation and how external agents contribute for the event. The following section tests the homogenisation hypotheses providing empirical evidence from the cases of automobile suppliers located in Portugal and Spain. It investigates (1) which practices and tools are actually included in firms quality programmes; (2) what are firms are actually doing under those labels, and (3) whether quality programmes lead in fact to a change in company routines. It identifies two groups of firms, G1 following a more standard TQM approach, and G2 which does not seem to follow a standard model. It then explores why cross-firm differentiation actually emerged. Finally it draws some conclusions of strategic importance either for suppliers as for clients, and policy implications.

#### I Pressure for standardisation

As for many other management fads (e.g. BPR, matrix-management), total quality management can potentially include many different routines that can be combined in different ways. However, from an institutional point view, some combinations become more popular leading to the emergence of a standard or normative, presumably legitimate, form of adoption (Table 1). In this perspective TQM definitions become increasingly narrow. Subsequently, later adopters will implement the standard, and presumably legitimate, quality programme (Westphal et al. 1997). Conformity to the standard involve, for instance, the selection of quality systems, practices and tools most commonly used, or the adoption of standard and accepted TQM prescriptions (e.g. the EFQM<sup>2</sup> model).

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<sup>&</sup>lt;sup>2</sup> EFQM model stands for the model created by the European Foundation for the Quality Management. In brief, the EFQM model it is based on the idea that customer satisfaction and impact on society are achieved through leadership, driving policy and strategy, people management, resources and processes. The EFQM is the base for the European Quality Award which has been run annually since 1992.

Table 1: Cross-firm homogenisation regarding quality programmes

- 1 Same combination of practices
- 2 Same practices and same meaning
- 3 Beyond formal adoption

The standardisation hypothesis also implies that concepts assume the same meaning for different organisations. Furthermore, it is necessary to investigate effective adoption of practices. As argued by Meyer and Rowan (1977) in the adoption of innovations such as TQM there is the danger that firms adopt it only formally and neglect the implementation, decoupling operational routines from formally adopted practices.

Several forces stimulate firms to move in the same direction, and therefore it is licit to expect homogenisation at these three levels (Table 1). Elsewhere (e.g. Amorim, 2000) it is discussed how other firms related to the focal organisation can be catalyst for change leading to the adoption of popular ideas, tools and practices. The imposition of standard quality assurance systems and practices by automobile assemblers upon their own suppliers' practices is a clear example of that effect. Furthermore, in the adoption of quality programmes involving actual participation and inspection by an external entity at the level of operational routines organisations are more pressured to conform to standard forms of adoption, and complete decoupling cannot occur. This scenario applies to many automobile suppliers upon which external institutions may wield tight and intrusive actions (1) during the implementation, and (2) through revision/ audit postimplementation. Two categories of actors in particular have potential to achieve such degree of authority. On the one hand there is the multinational client firm, which may be actively involved on the implementation and post-revision of the models they impose on their suppliers. Alternatively the multinational client may also subcontract consultancies and external agencies to act on his behalf. On the other hand, suppliers can also use consultants and/or independent auditing agencies, which also diffuse and control for the adoption of standardised practices across firms and countries.

# (1) Multinational client supplier relation, external consultants and quality related know-how

The implementation of quality related practices implies the acquisition of different types of knowledge. The typology proposed recently by Kipping and Armbrüster (1998) in a

review of the literature on management consultants and management knowledge seems to be especially relevant for our purpose. They suggest distinguishing the following knowledge types:

- General management knowledge: concepts applicable to a wide and diverse range of organisations, e.g. total quality management, re-engineering, benchmarking, ...
- <u>Specialist knowledge</u>: more in-depth knowledge about particular management areas such as, IT, etc., or a specific industry, e.g. telecommunications;
- <u>Procedural knowledge</u>: knowledge about how to carry out certain processes, e.g. how to analyse and change a company, how to implement a new IT system, etc.

If applied to the case of quality innovations in the automotive industry, this typology shows the role of multinational customers and consultants in complementing the skills of the focal organisation managers (1) by familiarising them with general quality concepts and ideas; (2) by providing them with additional quality-related know-how applied to the automotive industry; and (3) with skills of the procedural type to carry-out the implementation.

Consultants may be at advantage as source of general management knowledge, but regarding specialist knowledge (in our case quality related applied to the automobile industry), consultants and firm clients are substitutes as source of know-how. Both can provide the focal organisation with "best practice" or "benchmarks" based on the collective knowledge of the automobile industry and its specific quality programmes. Here the alternative for a supplier might be to send personnel for training or to headhunt an experienced manager from another company in the same sector or functional area. However, subsequently the personnel or the new hired manager will not be able "update" and broaden their knowledge as fast as their clients and /or consultancies can.

In terms of procedural knowledge, firm customers and consultancies can also be complementary. Companies themselves obviously also have procedural knowledge, but this is "routine" type knowledge, i.e. it is carried out repeatedly and only evolves very slowly (Nelson and Winter 1982). Consultancies, by contrast, develop processes which they apply to change the existing routines in companies. They codify these processes as far as possible, because they need to apply them to a wide range of different clients and to teach them to their consultants. Since companies do not require these kind of changes on

a permanent basis, it appears more efficient if they buy them, whenever the need arises. Therefore, if companies want to appropriate this knowledge, they need to hire the consultant who carried out the work. Firm clients can also provide such type of consultancy support. Large MNEs in particular have "suppliers support offices", and/or internal experts which work temporarily with the suppliers (cf. Dyer and Singh, 1998, Lincoln et al. 1998). In alternative, customers can also suggest the use of specific consultants to work on their behalf when it comes to the actual implementation of quality programmes on their suppliers.

Table 2: Alternative transfer mechanisms for management knowledge

Knowledge type	Transmitter to organisation	Major type of transmission mechanism
General	Consultant Customer	On-the-job; seminars; demonstrations; publications
Specific	Consultant	Consulting assignments, manuals, seminars and demonstrations
	Customer	Manuals, seminars and demonstrations, informal know-how exchange
Procedural	Consultancy	Consulting assignments
	Customer	On-the-job; subcontract to consultant

From the supplier point of view, the acquisition of general and specific know-how from customers or consultants can occur either through the access to their publications, manuals and other documentation, or by receiving training directly from them. However, such knowledge is mainly of codified type, and in line Cowan and Foray (1997) does not provide all the skills needed to undertake a total quality project. Thus, inter-personal contact is especially important for that transfer of procedural type of knowledge. Furthermore it reduces the potential for different interpretations of codified information expressed in manuals. Thus, in addition to the transfer of knowledge, there is the transfer of meaning, thus promoting conformity to normative forms adoption.

In addition, the direct involvement of externals may speed-up the implementation. Consultants and customer firm experts can bring to bear new general concepts very fast. In applying these ideas they have considerable authority, derived from their role as external observers and, more importantly, from the reputation of the consulting company as a whole, and/or from their power as a client firm. Hiring an experienced manager may be much cheaper, but clearly does not have the same effect, because this person will take a long time before reaching a position of influence in the organisation. Furthermore the direct involvement of external experts may still at advantage as the acquisition of knowledge is not the only element they bring in. Kieser for example (e.g. 1998) has discussed the issue for the case of consultants. For the case of clients, suppliers might use their support as a trust building mechanism and also to deepen their relationship. Otherwise the supplier might not have alternative than to accept the intrusive participation from their large multinational client

In terms of sources of knowledge, multinational clients and consultants differ in a substantial way. The use of external support from consultants is mainly an internal decision, and demand driven, whereas from multinational clients is an external factor much dependent on client own policy towards its suppliers (see for example, the different approaches followed by GM and Toyota and the consequences for supplier development, as referred in Dyer and Singh, 1998 or in Lincoln, 1998). This difference probably impacts on the way firms judge these two external sources of know-how. This is an issue for further research.

#### (2) Auditing and post-revision of implemented practices

It should be safe to argue that when quality programmes involve inspection by external entities (firm client or consultant) at the level of operational routines, complete decoupling may not occur, and organisations may instead be pressured to conform to the standard form of adoption. Within the automobile industry, and concerning quality programmes in particular, audits became a common place<sup>3</sup> (Table 3). Automobile suppliers conduct their own optional internal audits, which can also be assigned to

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<sup>&</sup>lt;sup>3</sup> The automobile industry is just an example to demonstrate this trend. Organisations across many sectors are subject to growing external reviews of their quality practices, as well as increased incentives for participating in external evaluations (Powell, 1995).

external entities. These evaluations are also based on standard forms of adoption. However, and by contrast to compulsory audits, to what extent they actually lead to corrective measures depends on the firms own decision.

More important for the process of standardisation are the compulsory audits. To achieve the different quality certificates, or to gain business with a potential client, automobile suppliers need to demonstrate to clients or accredited institution that their operations meet the specificity of the norms, and/or clients` requirements. Following the audits, the focal organisations will then enforce the necessary measures to eliminate the identified non-conformities. Otherwise it incurs the risk of non-certification, or of not gaining a new business with a potential client. Because the norms and clients` requirements apply equally to all automobile suppliers, the external auditing process is likely to enforce standardisation of practices across firms even if established in different countries.

Table 3: Type of audits and auditing agents

Level		Type of audit	Agent
1 <sup>st</sup> Level	Optional	Internal audit	External consultants
2 <sup>nd</sup> Level	Compulsory	External audit	Conducted by clients
3 <sup>rd</sup> Level	Compulsory	External audit	Accredited institutions

The discussion above suggests the following hypotheses:

**Hypothesis 1 (H1):** Firms TQM approaches are homogeneous, implying that management quality practices and tools are easily transferred between dissimilar environments.

**Hypothesis 2 (H2):** Participation of external actors on the implementation and auditing process predicts conformity to standard TQM approaches

**Hypothesis 3 (H3):** Third party auditing predicts conformity to standard TQM approaches

The next section of this paper discusses these issues within quality initiatives of firms located in Portugal and Spain.

#### II Quality programmes in the Portuguese and Spanish automotive suppliers

#### Methodology

For the purposes of this paper we focused on the quality initiatives of automobile suppliers located in Portugal and Spain. The complexity of organisational change and implementation of management innovations implies data of qualitative type. In these cases, and considering the intrinsic nature of the process, the case study approach is a suitable methodology (Yin, 1994, Miles and Huberman, 1994). It is based on interviews with firms' decision makers and consultants, complemented with companies' internal documentation.

The in-depth research covered 8 case studies of automotive suppliers, 5 in Portugal and 3 in Spain. These were amongst the companies that in a broad questionnaire survey (Amorim, 2000) reported to have implemented broad quality programmes. This chapter focuses on the automotive suppliers because it has been suggested that automotive industry has been a step ahead as far as quality standards are concerned. Table A.1 provides additional details accounted for when analysing the implementation and form of quality programmes: location, ownership, product specificity, size (in terms of n. of employees and turnover in 1997), importance of automobile-related clients (% of sales), and type of supplier. Four firms are foreign branches of MNEs. All sites produce automotive components. However they differ at the level of the product, share accounted for by this industry and their position within the automobile industry value chain. Automobile accounts for less than 50% of F3, F7 and F18 sales. In addition three firms (F3, F9, F18) are second tier suppliers. The analysis investigated whether these differences had major influence at the level of the implementation process.

For the purposes of this paper, the case studies data were analysed according to the practices recommended by Miles and Huberman (1994), with a variety of graphical and tabular formats for structuring the analysis process. Using the principle of triangulation it uses a combination of 1 to 3 interviews per firm lasting an average of three hours, archival and business press data to document the process of management innovation in the sample companies.

#### The reality of quality programmes

All the firms reported to have implemented TQM programmes in the last two decades. However, a detailed analysis of the major innovations introduced by focal companies reflects that cross-firm differentiation at the three levels: i.e. different combination of practices, same practices but different meanings, decoupling, i.e. only formal adoption, thus contradicting the homogenisation hypothesis.

A cross-firm comparison (Figure 1 and Table 4) indicates that, of all the sites, F7/S, F17/P and F18/S presented the clearest evidence of having achieved higher infusion of standard TQM philosophy. They not only use more systematically popular tools and practices, but also follow popular, standardised, total quality management models (Table 4). Their programmes go beyond implementation of simple compulsory QAS practices.

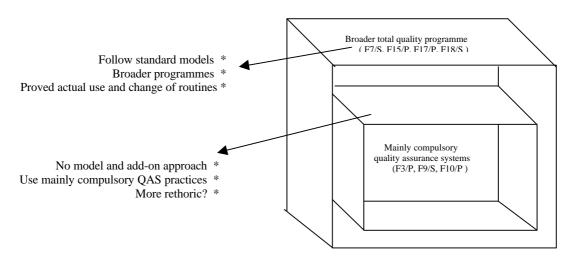


Figure 1. Cross-firm differentiation at the level of quality programmes

F15/P has also shown clear evidence of following a broad and systematic approach. It was the first firm to have adopted group of practices in line with a broad quality programme (e.g. Just-in-time, Kanban, Keizen teams). In addition these firms provided further evidence for the effective use of the practices and change of routines. F3/P, F9/S and F10/P by contrast are the firms reflecting a less standard approach. Their quality approach seems more a "collection" of quality practices. They might have the quality certificates but they do not appear to have a broad quality framework within which the last are part off. By last, F16/P is somewhere in between. The information provided is not sufficient to make a clear evaluation of the infusion of the quality philosophy in this firm.

From an institutional point view, some combinations of practices should have become more popular leading to the emergence of a standard or normative, presumably legitimate, form of adoption. Subsequently, later adopters would implement the standard, and presumably legitimate, quality programme (Westphal et al. 1997). Our results show that firms' quality programmes are indeed consistent with basic TQM principles<sup>4</sup> in strengthening internal quality assurance practices and relation with suppliers and customers, using teamworking to solve problems and carry out specific projects, and in investing significantly in training in quality related tools and practices. When asked for detailed interventions all firms started by referring to the implementation of standard quality assurance systems (QAS). As shown in Table 4, at this level there is convergence concerning the quality assurance and management models adopted. All organisations hold the ISO certification, while the QS9000 and VDA 6.1. certificates are also becoming popular. Against this background, the lack of a standard broad framework became clear in the interviews. As shown in Table 4, out of the eight firms only three firms (all G1) reported to follow a standardised broad approach to quality management. In fact, when asked for their background TQM literature, guides and frameworks, only F17/P implementing the Balanced Scorecard, F7/S and F18/S using the EFQM model provided anything.

Table 4: Quality programmes in the Portuguese and Spanish automotive suppliers

		Group	1 (G1)		G	roup 2 (C	G2)	
Quality innovations	F7/S	F15/P	F17/P	F18/S	F3/P	F9/S	F10/P	F16/P
Total quality management	1993	1985	1990s	1995	1996	1992	1998	1990s
Continuous Improvement	1993-5			1995	1997 (X)	?	1998	
Specific model of TQM								
EFQM	1998			1998				
Balanced scorecard			1999					
National award model					1996 (X)			
TQM model being used by 99	EFQM		Bal.Sco	EFQM				
QAS								
ISO9001	AENOR-97	APCER-94	APCER-93	AENOR-90	APCER-93	1999	APCER-97	
ISO9002				AENOR-89	APCER-92	1992/3		APCER-96
QS9000	AENOR-98	1997	Tuff-97				??-2000	Intertec-97
VDA 6.1		1999	Tuff-98					Intertec-99
EAQF	<1995		1993					
Q1 Ford	1983		1995					1993
Q101 Ford			1992					

(cont.)

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<sup>&</sup>lt;sup>4</sup> Hackman and Wageman (1995) and Westphal et al. (1998) for example provide a solid basis to identify the TQM philosophy, its main practices and tools.

Table 4: Quality programmes in the Portuguese and Spanish automotive suppliers (cont.)

(cont.)								
Quality innovations	F7/S	F15/P	F17/P	F18/S	F3/P	F9/S	F10/P	F16/P
Relation with suppliers	$\checkmark$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Suppliers evaluation Index	1995	1986	$\sqrt{}$	1990	1992	1999	1994	
Suppliers assistance Service	1995					No		
Meetings /join Development					1991	No		
Audits						No	No	No
Measuring client level Satisfaction	$\sqrt{}$		$\sqrt{}$	$\checkmark$	√		$\checkmark$	$\sqrt{}$
Index	1997		$\sqrt{}$	1996	1993	No	$\sqrt{}$	1995
Customer surveys	1998		$\sqrt{}$	No	NAM	No		$\checkmark$
Meetings/ Joint							$\sqrt{}$	
development Employees involvement and	√	√	√	√	<b>√</b>	<b>√</b>	<b>√</b>	√
motivation Team work	√ √	v √	v V	√ √	√ √	√ √	v √	√ √
Cont. impro. Teams	•	•	,	1995	V	•	1993	1999
(Keizen)				1775	'		1775	1,,,,
Project teams	$\sqrt{}$	1985	$\sqrt{}$			$\sqrt{}$	1993	$\sqrt{}$
Problem-solving teams (task forces)	,	$\sqrt{}$	√ 1001	$\sqrt{}$	√	$\sqrt{}$		1995
Multi-divisional teams	$\sqrt{}$	,	1991					
Use of suggestion box	1998	$\sqrt{}$	1995					
Surveys	√.		1991/99					,
Performance-contingency Payments	√		√	√				V
Quality practices and tools								
JIT		1985			Will			
Kanban		1986			X		X	
Chaining		>1996						
Brainstorming	$\sqrt{}$							1995
Benchmarking		1985	V			1990	,	,
Autocontrol	1986		√ 100 <b>7</b>	$\sqrt{}$		1983	$\sqrt{}$	√ 400 <b>=</b>
TPM	,		1997					1997
Quality dev. Function	√ ,	,	V	,	,	,	,	,
Internal audits	$\sqrt{}$	$\sqrt{}$	V	$\sqrt{}$	√ ,	V	$\sqrt{}$	√ ,
Conducted by internals	,	,	√ 	,	√ ,		,	√ _
With externals	√	√	No	√	1	No	√	Rare
Other		,	,	,				,
Taguchi		√	$\sqrt{}$	$\sqrt{}$	X			V
Cause-effect diagrams	$\checkmark$	$\sqrt{}$				$\sqrt{}$		
Processes checklists /flowcharts	1999					1999		
FMEAs	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		1999	1991/2	$\sqrt{}$
NQC		$\sqrt{}$	1993	$\sqrt{}$	X		1994	
SPC	$\checkmark$	1985	$\sqrt{}$	$\checkmark$		1983	$\checkmark$	1991
Pareto	$\checkmark$			$\sqrt{}$		$\sqrt{}$	1994	$\checkmark$
Control letters and plans				$\checkmark$		1999	$\checkmark$	
PPMs	$\checkmark$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		$\checkmark$	$\sqrt{}$	$\checkmark$
Capacity studies	$\checkmark$			$\sqrt{}$		$\sqrt{}$		$\sqrt{}$
TPM: Total productivity mainter	nance		FMEAs: Fail		1		on-quality co	
SPC: Statistical process control			And	d effect analy	sis	PPMs: D	efective part	s per million

 $<sup>\</sup>sqrt{\cdot}$ : Implemented and in use. When available the table provides the date of implementation.

Note: A description of most of these tools and practices can be found in Dale, B.G. and Oakland, J. (1991), TQM International (1995), Pike, J. and Barnes, R. (1996), for example.

X: Used in the past but not currently.

No: When firms responded categorically not be using the practice.

However, these models do not reveal much about the reality of TQM in each organisation. For that reason the study investigated which practices and tools are actually being used (Table 4.) Across all sites the most frequent innovations were at the level of employees` involvement and motivation techniques, relation with customers and suppliers, and internal audits, with all organisations reporting interventions at these levels. The most commonly used technique is the formation of teams, these ranging from continuous to short-term problem solving teams. These results seem to confirm the argument that from the original statistical ideas of Deming and Juran, TQM incorporated less technical elements with unclear meanings, and expanded into a diffuse, increasingly unclear concept (Hackman and Wageman, 1995, Zbaracki, 1998, Zeitz et al. 1999).

Despite similarities at conceptual level, the evidence confirms that practices have different meanings for different firms and often did not follow exactly its original rules. For example, firms tended to include under the label "team system" a variety of team activities, without distinguishing their different aims and functioning. From permanent to short-term problem solving groupings, teams work on a wide variety of tasks, ranging from cross-functional involvement in product design to solving within-unit workflow problems. The C.E.O. at F16/P for example, recognised that their continuous improvement teams (CIT) "...turned out being more quality groups, focused mainly on the quality of the product and process" (F16/P, 26/07/1999). At F10/P teams "...give information, clarify doubts, co-ordinate and follow the implementation of the quality programme, but they do not implement anything." Task forces were the most reported tools, but diversity dominates. While in six of the cases their functioning is formally defined, in other cases (F9/S and F3/P) they are not formalised, i.e. there is not a predefined form on the way they work. This evidence raises doubts about the actual use of task forces. In fact, while in F9/S we were shown evidence about their actual existence, in F3/P no evidence was found.

Intensification of relations with clients and suppliers emerged amongst the most frequent changes within quality programmes. There is some degree of standardisation for the case of practices compulsory within QAS or enforced by clients. Concerning relations with clients for example, most sites reported to estimate client level of satisfaction through a similar index, based on a multiplicity of indicators, such as delivery schedule, client complains or returns, PPMs (defective parts per million). And they do so because their clients also use them to evaluate suppliers, and they have pre-defined accepted levels for some indicators. However, firms in G1 are more active in this regard and

introduced additional practices aiming at deepening the relation with clients. F7/S, F16/P and F17/P for example reported to conduct client surveys.

Conceptually, the deepening of the relations with suppliers is one of the pillars of any TQM programme. However, in most cases organisations did not do much than to give preference to certified suppliers, and to adopt of a simple "suppliers evaluation index", largely based on the control of supplies at the reception. At least three firms do not even audit their own suppliers, and only one (F7/S) introduced "suppliers assistance system". F3 also attempted to go further using "clients' seminar days" and joint teams (internal staff and clients). However, so far, the system is neither structured nor formalised, for which most of the actions are reduced to sporadic events without long term effects. F15/P reported to be using JIT system, however we were not referred a deepening of the relations with its suppliers.

As shown in Table 4, a few companies also included benchmarking as one of the interventions associated with their quality programmes. This activity is consistent with the TQM ideology but it also means different things for different firms. While for F3/P benchmarking consisted on "...moving around, attending seminars, companies' presentations, visiting competitors plants", other firms follow a more systematised approach and "..used an external company to conduct an external benchmarking. They studied our practices and compared them with the best practices in the industry" (F17/P).

In addition to the latent diversity, some aspects of firms' quality programmes do not exactly fit with the core ideas of TQM. On the one hand scientific methods were clearly understated, and, on the other hand, there was an increasing reliance on performance measurement and performance-related rewards to motivate and control employees. All but one firm reported to use statistical techniques, however a detailed analysis reveals that they use only a small number of scientific statistic methods. The adoption and/or development of these techniques was in all cases related to the implementation of standard quality assurance systems ultimately imposed by clients, and its actual implementation had been confirmed through audits. However there was not clear evidence that all sites were actually using them for management purposes.

Concerning management of relations with employees, despite the interventions aiming at promoting their participation and motivation on the quality programme, few actions were taken at the level of identifying their needs and satisfaction. Only two firms conducted internal surveys covering these issues, and even in these cases it was not a systematised practice. By contrast there was greater concern in assuring employees

participation. F7/S, F16/P, F17/P and F18/S for example introduced structured, well-defined rewarding systems linked to team performance and to suggestions leading to quality improvements. Most of these are linked to quantitative performance measures, which redirects the traditional TQM spirit (cf. Hackman and Wageman, 1995).

Thus, all firms reported a considerable number of innovations. However, as argued earlier firms may adopt innovations such as TQM only formally, and if this is the case firm processes and internal routines will remain practically unchanged. In a few of the analysed cases, mostly firms within G2, it was questionable to what extent the changes were "successful", i.e. actually lead to a modification of existing routines in the long-run. For example, in a first instance F3/P and F9/S highlighted the major turnaround that had occurred in "company culture". However, later in the interview they also expressed considerable frustration and recognised that in fact "....the organisational practices changed very little. The quality system brought mainly formalisation and systematisation of the things we were already doing". F10/P quality manager did the same comment. In the other cases, such as F15/S, F16/P, and F18/P, managers started by arguing how things had changed little, but brought to light numerous changes that had occurred with the broadening and deepening of firm quality programme.

From the above it is clear that when compared to G2, G1 firms achieved higher level of infusion of TQM philosophy. Following Miles and Huberman (1994) the study identified factors contributing most for the differences. They are described in the following section.

#### Explaining differentiation – the dialectic between customisation and standardisation

The participation of external experts on the definition and implementation of the TQM programme, to a certain extent, contributed to the diffusion and implementation of popular tools and practices. Firms received support either from their own multinational automotive clients or/and from external consultants. They provided firms with generic and specialised information, thus driving them to implement popular practices and tools. In addition they were used to overcome firms` lack of operational capacity and to push the new practices against organisational inertia.

All firms implementing well-known quality management models (all G1) such as Balanced Scoreboard (F17/P), EFQM (F7/S, F18/S) or the Portuguese Excellence Quality Award (F3/P) had rely on consultants when deciding their approach to TQM.

Furthermore there was high similarity about the methodologies, tools and practices suggested in the initial plan. Top-down approach, SWOT analysis, constitution of teams, training programme, management-by-objectives, 6-sigma, were often included. Other firms were strongly induced by external consultants to adopt popular tools also when upgrading their quality programmes. At this level, F9/S and F10/P (both in G2) seemed more reluctant in using consultants.

Foreign clients' impact was also clear cut. Managers were constrained in their decisions because they were sent detailed manuals about the practices to implement within specific quality assurance systems. For example, F10/P quality manager highlighted that in the process of ISO certification, they had also to implement clients requirements:

"Chrysler send us a detailed manual (what to do and how to do it)...the system was very helpful and helped to develop the ISO system that we already had. Part of their requirements are in line (or even the same) with ISO." (F10/P, 06/09/1999)

Multinational clients also provided specific knowledge through training and informal know-how sharing. At least four firms reported to have received such type of support. F16/P and F7/S mainly from Ford, F10/P from Lear and F3/P from a large Portuguese group working with Toyota.

In addition, the interviews confirmed that the operational support from multinational clients and external consultants were also important forces mitigating barriers for change and pushed for the implementation of standard tools and practices. Multinational clients` participation was clearly identified in firms F7S (G1) and F3/P, F10/P (G2). F7/S was specially affected and supported by its foreign clients, and in particular by FORD:

"(...) in order to implement popular practices and tools, e.g. SPC, we counted with FORD suppliers technical assistance office."

Consultants also had important contribution at the level of operational assistance. In addition to their contribution as source of operational know-how "... consultants helped to break the internal inertia and passivity." (F7/S, 14/06/1999)

All firms received considerable external support, but the implementation of new practices interact with several forces which can preclude standardisation (Table 5.). While some organisations had capacity to absorb, interpret, circulate and utilise the

knowledge, others revealed great difficulties. Absorptive capacity can be stimulated directly by sending personnel for advanced training, or by recruiting new managers, for instance. All companies reported to have invested strongly in training, both at management and employee level, but often they lacked operational know-how to implement it. Pre-existing relevant operational knowledge, both at the managerial level and at the employee level, facilitated the compliance with standard forms of adoption.

Table 5: Forces for standardisation and customisation during the implementation

Type of factors	Force	Direction of the pressure
	Consultants	
External actors		Standardisation
	Customers	
	Lack of absorptive capacity	
Firm specific		Customisation
	Organisational inertia	
Country specificity	Industry development, labour market, business services	Customisation

Evidence comes for instance from G1 firms. F18/S for example embarked in a continuous improvement programme in mid 1990s. Although having general and specific knowledge about quality programmes, they lacked operational experience. They started by implementing a collection of tools and practices rather than a systematised broad quality programme. They went through several stages, and their efforts to carry on looked like experiments. They attempted to introduce well-known practices and tools, but a few actions failed to produce long-term results. Meanwhile internal staff (from top managers to shopfloor employees) received intensive training in both organisational and technical aspects of quality programmes. Finally, by 1997/8, F18/S decided to follow the standard EFQM model and started working more systematically with external consultants. After the first assessment (conducted by consultants based on the standard EFQM model) refinements were easily introduced. The internal accumulated experience also made the difference for F7/S. The quality manager revealed that nowadays they had achieved "a third stage characterised by active acceptance and enthusiasm: "... one of the secrets was for sure the flexibility and experience of the people leading the project" (F7/S, 14/06/1999).

By contrast, the lack of operational experience was probably one of the reasons why F3/P "excellence programme", introduced by external consultants, did not go through:

"...in 1995/6 we received training from APQ/Cequal in order to apply for the Portuguese quality award...but we gave up".

Another failure was their continuous improvement programme, suggested and developed by a well-known international consultancy: "... the consultants did the assessment, suggested the changes, provided training, followed the initial sessions of the improvement teams. However, the teams did not last long! The consultants should have supported us for longer because we had not acquired the necessary operational skills to carry on" (F3/P, 14/04/1999).

The ease or difficulty to implement the new practices is also a function of the expertise of those individuals to whom experts and managers transmit information and knowledge (Cohen and Levinthal, 1990). Inexperience at the employees` level revealed to be also an important barrier for the actual implementation of popular practices and tools. Against this background, the studied companies invested strongly in training in quality tools and practices for their employees, but these often ignored the know-how acquired. This effect was particularly relevant for firms in G2. In F3/P for example, we were told that "... we received training in Taguchi, Kanban practices....but we rarely use them". Unfortunately, other firms (e.g. F9/S) shared the same experience. Such disappointments result from problems at the training level and management approach. They were particularly strong when training had been given by external experts and it had been mainly of theoretical type, for which employees continued lacking operational skills to take-on the new practices. Managers are aware of the problem, but apparently they cannot find better alternatives.

On the other hand, even in the presence of external support, organisational inertia proved to be important. This emerged not only because existing routines were difficult to change but also because organisation members found difficult to integrate them with existing practices. These result confirms Nelson and Winter (1982) argument that firms suffer from "natural" inertia mainly due to the predominance of their own "routine" type of knowledge, i.e. activities that are carried out repeatedly and evolve very slowly.

The evidence confirms that changing routines is a long-term, and not always successful process. And this occurs even when externals participate actively in the implementation

process. This effect was more clearly identified in G2 firms. F9/S, for example, begun considering ISO by 1992 but was not until 1996 that they received the ISO 9002 certificate. Three more years passed before reaching the ISO9001 certificate. In this regard, the quality manager and C.E.O. highlighted that "cultural barriers" slowed down the standardisation of the internal quality system (F9/S, 16/7/1999). F7/S provides another good example, and in this case the firm managed to overcome it and reach a deep organisational change. The interviewees at F7/S recognised that before reaching the present system, and while working with external experts, the firm went through a major "cultural revolution" subdivided in three stages:

"...the first occurred when we <u>introduced autocontrol</u> per department and reduced the emphasis on control carried out by the quality department. The second occurred when we finally changed the <u>concept of the quality department</u> (already in the 1990s). Meanwhile we had been convincing people that everybody was responsible for quality. However there was some internal reaction because people did not want to change the way they were doing things. They used to argue that 'quality is for the quality department'. After we went through an intermediate stage characterised by <u>passive acceptance</u>, and now we reached a 3<sup>rd</sup> stage – active acceptance and enthusiasm.

Otherwise, incompatibility between quality practices and firms day-to-day life was also clear in several situations. Often the quality-practices became a kind of "work outside everyday activity", or they were not used at all. G1 firms also faced these problems but, apparently they found ways of overcoming them. For example F7/S general manager argued that:

"It is not easy to keep the team system working because teams work during working time, but employees cannot stop they day-to-day activities. Furthermore, we also had to change peoples` mind. At a certain point we understood that teams were demotivated. There was a conflict between organisational and functional teams. Furthermore, employees at medium level of the hierarchy were not much committed to the process, either because did not believe on it or because the changes were not on their interest." (F7/S, 14/07/1999)

Again, firms in G2 shown more problems at this level.

Otherwise, even when externals participated on the implementation process, firm production system revealed to be an important barrier for cross-firm standardisation. However at this level the groups did not differ much. Indeed, all firms reported to have adapted the norms to the firm industry, especially due to the specificity of the production system. F10/P for example, reported that some parts of the "Chrysler system" were ignored because of product specificity: "they wanted us to control the noise of the product when being used! I discussed with them and explained that it is not applicable to

our case. Fortunately they understood". F7/S managing director also reported that "...we learned Ford TQM programme in seminars and through manuals (...) we changed it to a great extent and adapted it to our plant".

In addition, G2 firms in particular failed to implement certain popular quality interventions, or abandoned them after the implementation. For example, the consultant that assisted F10/P on its ISO project (1995) said that he had "…implemented standard SPC practices to deal with the data, e.g. 8Ds, FMAs. These practices were widely used in the automobile industry". However, the interview with the F10/S quality manager revealed that subsequently they had abandoned that system:

"...we have tried to implement SPC but it does not work. In this type of industry the SPC per (attributes) is not applicable. And this is not a problem of our firm, I Know several other textile firms which attempted to introduce it without success." (F10/P, 6/09/1999)

The problems discussed above are amplified by the fact that organisations are often caught in situations of rapid change, and having to deal with multiple, sometimes conflicting, situations (e.g. company growth, change in internal structure). Thus aspects of strategic management, availability and accessibility to resources are also important. Companies attempted to overcome the above referred barriers using the most diverse techniques, apart from using external support. G1 firms appear to have been more successful in this regard. F7/S for example managed to re-stimulate the interest on the programme by increasing the dialogue between the different members within the organisations. Doing so they introduced a "suggestion box system", increased internal diffusion of information and introduced new rewarding systems. Management and employee inertia was also reduced with the replacement of "old" managers or employees. In these cases the new managers smooth the changing process and boost the quality programmes (e.g. F7/S, F18/S). However it is arguable at which point they have the necessary strength and do not enter in conflict with "company culture". In some firms top managers were actively involved with the implementation of new quality practices (e.g. G1 firms), whereas in some others (G2 mainly) the lack of management commitment with the implementation was more than clear. Often, in interviewees` statements was implicit that new practices were seen as a new ways for others to work. Top managers would define teams, set-up their aims and reward systems but they would not participate on the implementation. This effect is clear in F3/P C.E.O., for example. His words clearly reveal his detachment towards quality related programmes:

"...ISO is a fashion... the certification itself is bullshit. It consists in writing up what was already being done ..." (F3/P, 23/03/1999)

This type of behaviour partly explains why F3/P attempts to embark in a broad quality programme did not go far. F10/P, by contrast, seems to have learned with its own mistakes. In 1994/5 the lack of management commitment seriously affected the progression of its quality programme (process for ISO certification). As mentioned by the consultant working for F10/P (and confirmed with F10/P internal managers):

"I gave training but things would not be applied mainly because there was lack of involvement and commitment from the top-managers".

Since then things changed considerably, and the quality programme gained a new boost. Administrators took the lead of the ISO process and nowadays they are actively involved in different quality teams. However, this firms has decided to develop its programme relying mainly on internal resources, for which it has been a slow, step-by-step process. "Natural inertia" at the employee level also came into play. The study reveals that in fact organisations with a large pool of resources were more able to overcome such barriers, making it easier to actually implement new practices. Firms in G2 had more problems at this level. Even if they had internal know-how, they lacked the resources to fully implement certain new practices. G1 firms show less problems at this level, whereas G2 firms were more strongly affected. F9/S provide the best example on how rapid company growth and consequent scarcity of human resources delayed the changing process. As we referred earlier it took F9/S more than 6 years to standardise its system accordingly to ISO 90001. Apart from the firm cultural barriers, "... the company was growing at a fast pace (in five years with doubled the production and sales) and as a result there was no time to structure internal processes" (F9/S, 16/06/1999). Despite the support received from clients and consultants, F10/P quality manager also argued that he was "....too involved in other issues and let the time to pass bye". As a result, practices demanding higher commitment and enforcement were dropped.

#### The influence of societal factors

A detailed comparison across firms reveals that the implementation of quality programmes, and the subsequent form of adoption, was also shaped by different societal models of industrial specialisation, labour markets and development of business support

industries. This effect was more clearly identified at the level of implementation of industry-specific standards (i.e. QS9000, VDA 6.1). When dealing with implementation of industry-specific quality practices and systems in the 1980s and 1990s, the Spanish automobile suppliers benefited to a greater extent from the existence of a pool of skilled workforce and specialised business services (e.g. technological centres and professional associations). Portuguese companies by contrast could hardly find local alternative sources of specialised know-how, and often they had to search it abroad. The Portuguese established firms F10, F15, F16 and F17 highlighted that fact. F16/P C.E.O., for example, complained that "...in early 1990s there were no business supporting industries because automobile was a new manufacturing industry in Portugal. Meanwhile, the auto-europa project (Ford/VW Joint-venture) created in early 1990s pushed the development of a few suppliers and a few industry organisations emerged. However the automobile is still an emergent industry. There is hardly any technological centre." They had to use "...Spanish consultants when implementing QS9000 (....) and VDA because there were no alternatives in Portugal". Otherwise F10/P is implementing QS9000 without the help from any consultant. For these companies the support received from multinational clients and/or from their foreign parent became the most important sources of industry-specific know-how. In addition, as mentioned earlier, by contrast to their Spanish counterparts, even for auditing (both voluntary and compulsory) Portuguese located companies had not alternative than to use foreign institutions. In this regard, it is safe to argue that the automobile industry developed earlier and more in Spain than in Portugal. This might explain, to a certain point, the Portuguese "backwardness" at the level of development of industry-specific business services.

These results confirm that the wider institutional environment embeds firms capacity to innovate thus affecting the introduction and shape of management innovations in a fundamental way. Firms' capabilities are also linked to the wider set of institutions in a country. They reside not only in firms' own know-how, but also in the strengths of its institutional relationships with customers, suppliers, or sources of know-how (Kogut, 1991). Thus, in a wider perspective, the network of business services in general, its links to economic organisations, and even links between the latter, which constitute some of the players in national systems of innovation (Freeman, 1987), strongly affect firms management innovation path. In this wider perspective the investments made by public institutions are part of the process by which capabilities are routinised within the country.

Thus, variation across countries must be treated explicitly in the context of the evolution of industries. However some of this variation is attributable to the effects of firm specificity. Attention should be given to the strategic actions firms put in place to counteract the environment lock-in. Some organisations seemed far more able to do that. In our cases branches of foreign multinationals (F15/P, F17/P, F18/S all G1) could count with the know-how and support from their parent companies, thus they were much less dependent (compared for instance to G1 firm F10/P) on the availability of local sources of know-how. They could exploit group best practices and resources, and their capabilities partly reflect their enjoyment of the within-firm diffused skills and institutional strengths of their parent firms.

Despite the clear evidence, the effect of the societal factor must be further investigated using higher number of cases.

#### The case of auditing

There is evidence that quality audits pushed firms to actual adoption of standard quality practices. All focal organisations reported that they often to a revision of the system towards a more standard form. This was introduced either before or after the audits. However, this process did not preclude differentiation. First, due to high level of subjectivity at normative level the audit evaluation depends to a great extent on the auditing organisation and on the auditing team itself. Notwithstanding, this effect has been declining with auditors increasing experience and their industry specialisation, as well as with progressive normative detail. Secondly, the dubious relation between firms and auditors reduces pressure for standardisation. These effects are easily identified al three audit levels, and both groups reported similar experiences.

All firms reported to conduct voluntary internal audits to firm quality assurance system, and for six of them they are predominantly conducted by external experts. In addition three firms went through an external assessment following a pre-defined TQM model, i.e. F17/P following "the balanced scoreboard", F18/S and F7/S the EFQM. However, standardisation effects were often attenuated by the subjectivity of the underlying norms.

At the level of compulsory audits conducted by automotive clients, their strategy has changed in recent decades, apparently towards higher standardisation. From the 1970s automotive clients' requirements were successively broadened from product-

related and quality control to include "quality referential" and audits. Until early 1990s each client had its' own system, and suppliers had to follow dispersed and non-related requirements. After, automobile assemblers realised the need to harmonise procedures, and to avoid costly audits. These lead to the adoption of ISO as a quality standard, and later to the development of industry specific quality systems. The most recent step was to pass the auditing process to external accredited organisations, and, by doing so, we can argue, to pass on the auditing costs to the suppliers.

Despite this evolution, it is arguable at which point increasing standardisation at normative level enforced similar outcomes. Some automotive clients (e.g. the Japanese assemblers, Valleo and IVECO) continued conducting their own audits to suppliers, and even when following the same norm the audit result continued much dependent on auditors own approach:

"...TRW audited us just a few months after Keiper, and they did not consider at all the results of the later (...) Keiper classified us with a C and a couple of months after Lear classified us with an A." (F10/P, 6/09/1999)

"However clients differ from each other, and even auditors from the same client have different behaviour." (F16/P, 10/08/1999)

Concerning independent organisations audits, conflicts were a common place. While in some situations firms were indeed forced to change, in some others auditors` pressures were hampered, and customisation won over standardisation:

"....they wanted us to introduce more and more bureaucracies...we justified that we were not doing things in accordance with the norm because they were useless....we even stated that if they did not accepted we would give up from the ISO certificate, and we would proudly publicise that we were non-certified firm" (F3/P, 23/03/1999)

Otherwise, cross-firm differentiation resisted not only due to firms' reaction towards auditors, but also due to the earlier referred subjectivity of the norm. F17/P for instance revealed that there were problems of interpretation concerning the distinction between "corrective and preventive measures". In the interviews it was frequently referred that:

"The audit depends on the auditor itself. Some are more knowledgeable and have good personality... more recently we had an auditor that was too arrogant, cold and rude....in the following here he was appointed as auditor for another firm in the group and they asked to replace him..."

And the space for differentiation seems to have increased with the increasing number of accredited institutions, at national and international level.

Notwithstanding, while allowing for cross-industry differentiation, initial subjectivity opened the door for increasing intra-industry standardisation. This emerged not only with the development of industry-specific norms, but also with auditors experience and specialisation per industry:

"In the beginning the IPQ<sup>5</sup> auditors were a bit lost. Tended to go into details about the ISO norm...and we implemented things we were strictly obliged to. Meanwhile auditors gained more flexibility and they are able to interpret the norm from our industry point of view" (F17/P, 4/09/1999)

In addition, there is higher standardisation at the level of industry-specific audits because "...the auditors of QS9000 are much better and more specialised...they focus on what the clients want (F16/P, 26/7/1999). At this level, the cross-industry standardisation is more evident in the Spanish case. As F17/P manager said "ISO auditors became more experienced,..., but even nowadays the automobile industry is not much developed in Portugal". For industry-specific certificates all Portuguese companies used "...foreign institutions because there were no alternatives in Portugal" (e.g. F16/P). Some Spanish firms continued to prefer foreign accreditation organisations not due to lack of domestic supply but because national institutions "are not internationally recognised".

On the other hand, continuous and repeated contacts with the same quality auditors also might have hampered standardisation pressures. For optional audits firms often use the same external auditor. The same happens with clients' audits. At least one firm confessed that "...the first client audit was deeper ...now is just like a routine type of visit. We know the auditors and they know us quite well." Similar events occur at the level of compulsory audits (e.g. F10/P for ISO and F9/S for QS 9000). Furthermore, in a few cases the same external auditors were -or had been- used as consultants/ optional external auditors for other quality related projects. In both countries the legal constraints have not been so far efficient to preclude these events. This "dubious" relation between firms and auditors (clients and others) creates again the possibility for decoupling between formal adoption and operations.

To finish up, bringing all forces together, it is easy to understand why F7/S, F17/P, F18/S and F15/P reached higher level of standardisation. External actors and firm specificity complemented each other in what concerns the implementation of popular tools and practices. They have shown higher absorptive capacity, and greater ability to overcome

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<sup>&</sup>lt;sup>5</sup> IPQ stands for Instituto Português da Qualidade (Portuguese Institute for Quality) and it was the unique Portuguese institution accredited by ISO.

organisational inertia. The four firms ranked highly the role of external actors and seemed less concerned with the barriers in the process. In addition, F17/P and F15/P overcome the environmental lock-in by having access to its foreign parent know-how. G2 firms highlighted much more barriers for the implementation of popular tools and practices. F3/P in particular has not been able to put in practice a broad "quality programme" despite frequent participation of external experts. The barriers for implementation were clear in this case. Lack of absorptive capacity, lack of managers commitment and lack of resources were the main problems. F9/S and F10/P gave more relevance to internal sources of know-how and less to external experts. In fact they did not reflect much openness towards consultants. Table 6 summarises the main points highlighted during the interviews. Negative sign means that the factor was against standardisation (i.e. implementation of popular practices, tools or models). Positive sign represents just the opposite, i.e. the factor stimulated conformity to standards.

Table 6: Main factors impacting on quality programmes (forces favouring or against standardisation)

	F7/S	F15/P	F17/P	F18/S	F3/P	F9/S	F10/P	F16/P
Role of externals								
-consultants	++	++	++	++	+	+	+	
-clients	+				+		+	+
Internal skills								
-managers	- to +	- to +	- to +	- to +	-		- to +	
-employees					-	-		
Inertia								
-top		+	- to +		-	-	- to +	
-change routines	- to +	+	- to +	-to +	-	- to +	-	+
Resources		+	+			-	-	
Societal factors								
- business services		-	-				-	-
Audit – voluntary								
- externals for QAS	+		X	+		+	X	X
-TQM model	+		+	+			X	
Same auditors						-		
Audit- compulsory								
-apply changes	-		-/+		-			+
Same auditors	-				-		-	

<sup>+</sup> foster standardisation

<sup>-</sup> barrier for standardisation

X not used

#### **Conclusion**

The findings to a certain degree contradict H1 and the predictions of the new-institutional theory. This theory implies that management practices and tools are easily transferred between dissimilar environments, leading to an increasing homogenisation. The case studies show that conceptually organisations have all adopted quality programmes. However, by focusing on what is actually implemented, the paper highlights that the adoption of popular management ideas, and that the so-called standardisation, is neither automatic neither natural. The study reveals three defining features:

- 1) Despite the evidence that total quality programmes are being adopted by numerous organisations, the problem is that what many organisations are actually implementing is a pale or a highly distorted version of the TQM philosophy. In fact, and in response to institutional arguments that institutional processes generate an increasingly narrow definition of TQM, evidence here from quality programmes in use suggests just the opposite: definitions of TQM grow increasingly broad. The key distinction here lies in TQM as adopted and TQM as used and understood. A number of interventions, related to the original TQM philosophy or not, are increasingly being herded under the TQM banner. Every intervention has been reported as something that is supposed to be done as part of TQM. The most frequently chosen add-on interventions (e.g. performance-contingency rewards, work redesign and empowerment) may reflect that the boundaries of the management programme become blurred as more and more initiatives are launched in its name. TQM has been criticised because this increased broadness. However, popularity of TQM seems to rely precisely on its interventions being flexible and not too radical, and therefore they can be installed in everyday life of the organisation.
- 2) Cross-firm differentiation at the level of what firms are actually doing. It was shown that the adoption and diffusion of quality programmes in Portugal and Spain was accompanied by firm adaptation. This is a question of practical relevance and strategic importance within the context of organisational change. Despite mimetic, normative and coercive forces for standardisation, what "quality programme" came to mean to each organisation depended mainly on the interplay between (i) active participation of external actors (ii) firm and country specificity. The results confirm H2. It is argued that clients and consultants provided a fast source of knowledge to define and implement a new

management programme (e.g. quality programme), probably saving an organisation time and effort. With their support firms were driven to implement popular quality tools, practices and models. However, the implementation of those ideas was often barred by firm specificity. In some cases espoused changes appeared to "have failed", i.e. did not lead to actually modification of existing routines. This might be because in fact they never got implemented. Most changes may be more rhetoric than real, as in a programme that exhorts people to alter their behaviour but the ultimate interest is the achievement of a quality certificate. Furthermore we did not find much support for H3. External auditing did not totally preclude customisation and/or decoupling between formal and actual implementation. Thus, the actual development of firm routines is a key feature in explaining the variability of organisations' quality programmes. And the former is a function of access to alternatives sources of knowledge (e.g. clients and consultants), top management commitment and possession of capabilities for utilising and building on such knowledge.

It was highlighted that variation across firms and across countries must be treated explicitly in the context of the evolution of industries. The perspective developed above accepts this recognition, with the twist that some of this variation is attributable to the effects of firm specificity. More resourceful firms may find ways to counteract the environmental lock-in. We referred to foreign branches of MNEs, for example, which benefited from group best practices and resources, remaining largely independent from a less favourable environment.

3) The paper brought to light important issues for the customer-supplier relationship within the automobile industry. Customers must consider the possibility for differentiation due to firm specificity. Within the latter, apart from the issue of absorptive capacity and organisational inertia, it was highlighted that product specificity does matter. Otherwise, standardisation will not come without greater customer participation on the actual implementation of their requirements and suggested practices. This is particularly important for firms that do not have alternative sources of know-how.

In addition, it sheds lights on the role of consultants as carriers of knowledge and on the consultancy practice. Greater attention must be given to firms' pre-existing knowledge and level of organisational inertia. These proved to be highly important issues during the consulting assignments.

Finally, the paper has also important policy implications. Nations are characterised by particular modes of institutional governance, and by the national focus of policies, laws and regulations (Metcalf, 1995). Together, they contribute to shape the organisational and technological context within which each economic activity takes place. In a sense, they set the opportunities and constraints facing each individual firm process of innovation. In this context governments direct firms innovative paths by using policies favouring particular charters for instance. However, caution should be in place to ensure that such "innovations" go beyond formal adoption, and lead to effective change of routines and mentalities. Elsewhere (cf. Amorim, 2000) we referred to the financial stimulus that has been given to firms' quality initiatives. However, our evidence shows that these policies may suffer from important shortcomings that need to be addressed. First the financial incentives must be complemented with a set of conditions facilitating the access to sources of know-how and firms capacity to use and implement such knowledge. Within the latter we include, for example, the availability of complementary skills, information and intermediate inputs and capital goods. The lack of local specialised sources of knowhow was more evident in Portugal. This event propelled firms either to develop their quality programmes mainly with internal resources, to use less industry-specialised sources or foreign located institutions. This is particularly important considering that domestic firms (especially those with less resources) are the ones' more affected by the contextual variables. Secondly, caution should be in place at the level of auditing. There is the need to ensure that firms are actually changing routines and not adopting the practices merely formally, for the purposes of accessing to subsidies, or/and formal certificates.

### Appendix

Table A.1 Main characteristics of the cases

	Code	N. Interv.	Est.	Ownership	Main Product	Empl.	Turnover (Euro)
	7.0		10.42	G ' 1	C 11	200	\ /
$\overline{}$	7 S	2	1943	Spanish	Cold stamping of metal parts from strip steel and wire	208	20.718.000
1 (G1)	15 P	1	1969	U.S.A (since 1981)	Electric / wiring harness for automobile	657	51.998.167
Group 1	17 P	1	1940	German (since 1990)	Tyres	831	125.633.393
0	18 S	1	1988	UK (since 1993)	Wire and cable manufacturers	1,044	196.890.000
5 5	3 P	3	1926	Portuguese	Paint	452	70.112.160
Group (G2)	9 S	2	1924	Spanish	Electric products	200	22.620.000
	10 P	3	1988	Portuguese	Seat covers and trims	275	26.950.430
	16 P	2	1991	German (greenfield)	Anti-robbery systems	267	42.450.890

(continued)

Table A.1 (cont.) main characteristics of the cases

	Code	Main clients within automobile industry	Automobile Related sales	Type of supplier
	7.0	G . D I F I VIII	(%)	4 .
$\vdash$		Seat, Renault, Ford, VW	<50%	1st
) up	15 P	Ford, Opel (Automobile assemblers in general)	100%	1st
Group (G1)	17 P	Ford, Chrysler, GM, PSA, VW	100%	1st
	18 S	Automobile assemblers in general	<50%	2nd
2		Salvador Caetano (holds a JV with Toyota)	<50%	2nd
Group (G2)	9 S	Osram, Philips, GE	100%	2nd
Ľ	10 P	Keiper Recaro, TRW, Lear, Chrysler	100%	1st
	16 P	Ford, Opel, VW, Delphi, NFK	100%	1st

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