The perfect quality model and the quality of public finances[1]

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Abstract

The study undertakes to model of perfect quality in order to clarify the basic logic of quality improvement. The model defines the system of requirements based on the stakeholder's point of view and the philosophy of Total Quality Management, which the perfect quality product can fully meet. The main obstacle may be that the system of stakeholder requirements is almost always fraught with internal contradictions. The system of requirements that has already been harmonized makes it possible to avoid the traditional way of quality development, namely the prioritization of requirements, and in this way, many of them being ignored. Consistency can be created primarily through mutual education, information, and lobbying activities. Some of the domestic public financial organizations can learn directly about the partial set of requirements of non-power stakeholders through legal remedy procedures, but for many this is not possible either. Few public financial organizations have a formal influence channel towards organizations exercising power, such as the State Audit Office and the Hungarian National Bank, which are far ahead of other organizations in terms of education and information.

KEYWORDS: perfect quality, stakeholder, public finance system, audit office
JEL CODES: C50, D82, D86, G21
DOI: https://doi.org/10.35551/PFQ_2023_2_3

Introduction

In modern market economies, government involvement is significant, albeit to varying degrees. Not only the extent of this involvement varies, but also the way in which it is done, with some governments better able to promote the proper functioning of the economy and others less so. The public finance system draws resources from the

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private sector, but it also uses them in a favourable case, in a way that is efficient, effective and, last but not least, legal, in a way that is fully consistent with economic policy objectives. Beyond the requirements of economic policy and relevant legislation, relatively little attention is paid to other requirements and compliance with them. This is because the public finance system must operate in accordance with the law, not only to meet the expectations of the government, but also to meet the expectations of all stakeholders. Especially for manufacturing companies, but also for service providers for decades, it is natural that quality management activities focus not only on quality assurance, but also on continuous quality improvement. Meanwhile, the quality and quality improvement of government and public finance has become, and perhaps somewhat disproportionately, has remained a political science issue. From an academic point of view, positive analyses link good governance to certain democratic and institutional principles and characteristics, while normative analyses ask for specific democratic and institutional principles and characteristics (Rothstein, 2021; Mungiu-Pippidi, 2021, Kirby and Wolff 2021, Wedel, 2021). Relatively few have explicitly addressed the issue with the intention of applying quality management objectives and tools (Cole, 2011; Olander, 2021).

Quality management, while customer-oriented in terms of the requirements to be met, aims to identify the relevant requirements of all stakeholders. It then tries to reconcile the conflicting requirements, but typically ranks them in terms of satisfiability, so that it can then make efforts to satisfy those at the top of the ranking as much as possible. When preparing the prioritisation, a great deal of attention must be paid to the interrelationships between the requirements and the possibilities of switching between requirements, which is in most cases a very complex task, while there is often insufficient information to explore the interrelationships. The – theoretical – model of perfect quality discussed in this study avoids the need for ranking and the often subjective decision-making that goes with it. By resolving the internal contradictions in the requirements system, it is possible to satisfy all relevant requirements simultaneously.

The study first presents related theories of quality management in 'general', then those related to government and public finance. A formalised model of perfect quality is then discussed. Finally, the potential applications of the model in the field of public finance are discussed.

A the rise of the stakeholder approach to quality management

The different definitions of quality complement rather than contradict each other. The different highlights are due to the different conditions of application. As we will see, it is the perfect quality that represents a higher quality in any comparison of quality definitions.

Curry (*1985*), studying the relationship between price and quality competition, found that firms that can consistently offer customers the highest quality at the lowest possible price for the highest possible price can become the long-term market

leaders, and hold the largest market share. This means an unbeatable offer, guaranteeing you a leading role. At the best, i.e. lowest, price, a company can only maintain or create profitability in the longer term if costs can be kept low, by an appropriate rate, reduced or if there is the possibility to increase prices over time. Assuming that firms were operating with very similar costs in the production of goods, Deming (*1986*), viewed quality, from the point of view of the producer producing the good, mainly as the specification of the good to the customer. Remarkably, Deming *(1986)* considered training as the starting and end point of quality efforts, not only in relation to company employees and managers, but also in relation to suppliers and customers. Smith *(1993)* stressed that a given good serves consumers with multiple needs and preferences, making it difficult to define an exclusive set of quality requirements from the user›s point of view. On the other hand, the user often lacks the knowledge to identify their real needs and preferences, especially if they are not planning for the short term. For this reason, Smith *(1993)* proposes that the relevant interests and needs of all stakeholders should be taken into account and that the specification of the good to be selected should be the one most beneficial for all stakeholders in the long run. Obviously, this is often a very complex and difficult task, as it is necessary to choose between conflicting requirements, which ones can be satisfied and to what extent.

According to Noordhulzen et al. *(2008)*, greater compliance with some requirements, with the consequence that the actor is less compliant with some other requirements, and thereby increases its overall risk exposure, may not actually result in a higher quality good, even if the customer perceives this as such compared to before.

Edward Freeman considers the role of ‹stakeholders› to be crucial in all corporate decisions (*Freeman 1984*). According to Mitchell et al *(1997)*, in order to be a stakeholder, three conditions must be met. Be affected by the company›s operations, be affected in some way, and have some power to influence the company›s operations. Donaldson and Preston *(1995)* have pointed out that it is the stakeholders who determine the cost level of a company as well as its revenues, i.e. its profitability. The specific configuration of the company and the products and services it produces is therefore usually created in a way that is influenced by the stakeholders. In countries where firms are more attentive to the interests of their stakeholders and more cooperative with them, the value of firms is significantly higher (*Allen et al. 2008*).

In his theory of Total Quality Control, Feigenbaum *(1983)* points out that all members of the company must do their part to achieve higher quality. In order to fully mobilise internal stakeholders, it is important to identify not only the customers but also their requirements in terms of product quality, and to ensure that the quality of the product is as consistent as possible with these requirements. The Total Quality Management approach *(Charantimath 2017)* places a strong emphasis on knowledge management, whether for company employees, managers, suppliers or customers. This partly involves the acquisition, i.e. collection and processing, of knowledge available from external and internal stakeholders (*Kozák 2019*). At the same time, it is also important to ensure that the stakeholders also have access to

the additional knowledge they need to support the company›s efforts to achieve the highest possible quality. Chen and Su *(2006)* point out that it is very important for customer satisfaction that customers have access to the right information from the company, i.e. that the company educates its customers properly.

The quality management system standard for socially responsible enterprises, ISO 26000, version 2018, in its section 2.20, defines a stakeholder as individuals or groups of individuals or groups that have an interest in any decision or activity of an organisation. However, what is left out of this definition is that stakeholders have some influence – direct or indirect – on the functioning of the company beyond their interest. Standard ISO 25030:2019 for a quality framework for the quality management requirements and assessment of computer systems and software focuses specifically on understanding and meeting stakeholder requirements. It is a major step forward that this standard requires the user to understand the requirements before product development and to update them during and after the product development process.

Finally, let›s see how the quality definition related to the ISO 9001:2015 quality management system standard compares to all this. According to this – Section 3.6.2 – quality is the degree to which the set of inherent characteristics of the good as a whole meets the requirements specified for it. It should be noted that previously, up to ISO 8402:1994, the definition did not include requirements and compliance with them, but rather expressed and latent needs and their satisfaction. For many people, the quality definition of the Standard ISO 9001:2015 may seem too general, but in the light of the quality concepts described earlier, it is very telling. Although the ISO standards for quality management require customer focus from the outset, they do not mention customers or other groups with an interest in the quality characteristics of the product in the quality requirements. It is precisely the company applying the quality management system standard that must define, beyond the category of characteristics inherent in the product, which requirements of which stakeholder group it is intended to meet, and to what extent.

The quality of governance and governing

Services are fundamentally different from products, according to Foster (2013), in that they do not exist in a tangible, physical form, and their qualitative characteristics are much more variable and heterogeneous, if only because they are influenced by the necessary involvement of the service user. Another major contributor to heterogeneity is when the service is provided with human intervention of the service provider, the characteristics of which cannot be guaranteed to nearly the same extent as in the case of a machine process that has undergone multiple preliminary screening. According to the HIPI principle (Parasuraman – Zeithaml – Berry, 1988), the four main differences between services and products – from a quality management perspective – are that a given service is also more heterogeneous, intangible, perishable and inseparable from the time and place when and where it is provided

to the customer. As a result, the services themselves cannot be improved, only their consequences. The ten dimensions of service quality (Parasuraman – Zeithaml – Berry, 1988) are: tangibility of results (clarity), reliability (balance), adaptability to the specific needs of the client, expertise, courtesy, credibility, safety, accessibility, communication, understanding of the client.

It is essential when discussing public administration from a qualitative perspective to identify which of the many stakeholders constitute the ‹customer› side (Nabatchi – O›leary, 2005). The concept of the ‹customer› side always varies from one administrative policy to another. Since public administration is part of the executive, it has never been disputed that the requirements of customers and clients must be met primarily by the executive, the government. Whether the customers of the public administration or internal stakeholders are also customers is policy-dependent (Nabatchi – O›leary, 2005). From a quality management point of view, public administration and the activity of the SAO to improve its efficiency are part of the service sector (Dooren – Thijs – Bouckaert, 2018), since the exercise of power does not involve the actual production of products. At the same time, administrative decisions already clearly have product-like characteristics, as they can be ‹stored›, have characteristics that can be measured back later after their production, and can be improved (Dooren – Thijs – Bouckaert, 2018). Administrative decisions can be expected to take into account all the relevant circumstances of the case when applying the relevant legislation, i.e. to be qualitative in the sense that they take into account the different relevant features of each case (Dooren – Thijs – Bouckaert, 2018).

The New Public Management movement was dissatisfied with the role that government had played in Western Europe until the 1970s. That bureaucracy has not been sufficiently conducive to economic growth and development (Barzelay, 2001). There was a demand for cheaper, more cost- and time-efficient public administrations that create value, from both the economy and society (Rosta, 2015). Overall, the New Public Management approach has not lived up to expectations (Rosta, 2015). The decentralisation of public administration, deregulation and the creation of value for the economy have produced partial results, but the financial crisis of 2007-2009 also highlighted how fragile these results were. Meanwhile, the huge development of info-communication has made it possible to re-centralise without having to give up the informational advantages of the previous decentralisation. Legislation, which is difficult to enforce and difficult to apply, can be implemented by public administrations with great difficulty and conflict, if at all. This degrades the level of compliance with its requirements, even if it would otherwise be able to deliver high quality in all areas (Rosenbloom – Kravcuk – Clerkin, 2015).

The public finance system needs to meet the following requirements as fully as possible in order to enhance its quality (Afonso et al. 2005, p. 7.):

1. maintain an institutional environment that supports economic growth and sound financial management;
2. a commitment to limiting the role of the state in the provision of goods and services;

3. the right incentives for both the private and public sectors to use resources efficiently;
4. operates an efficient and stable tax system to ensure government resources are available to the private sector, which also regulates the private sector to meet economic policy objectives;
5. also supports macroeconomic stability through sound and sustainable public finance management.

In 2011,the Public Expenditure and Financial Accountability Committee (PEFA), a group of the World Bank, the International Monetary Fund, the European Commission and some European countries , developed a framework based on 28 indicators, which was suitable for measuring the performance of public finance management (PEFA, 2011). The indicators focus on the characteristics of financial management, with a particular focus on financial sustainability, and the assessment of results is also limited to direct financial outcomes, without measuring the national economic and social benefits generated by the operation of the public finance system or the fulfilment of economic policy objectives. Measuring the achievement of economic policy goals is a particularly complex problem, especially as these goals are not identical in space or time, so that even if there were results, they would be difficult to interpret. Other models aim to quantify more of the economic impact of the operation of the public finance system compared to the PEFA model above, such as the value tree model of public finance management (Pulay – Simon, 2020).

The activity of the SAO, which operates separately from the executive, can be considered effective – i.e. of higher quality from the perspective of our study – if it improves the compliance and efficiency of the use of public funds (Domokos 2019). However, the activity of the SAO is not limited to auditing, as it also has an opinion-giving and proposal-making role towards the Parliament in relation to the Central Budget Act, and may also make proposals for amendments to other legislation related to public finance. So we can talk about the desirable improvement in the compliance and efficiency of the use of public money not only at the level of the controlled organisation using public money, but also indirectly, i.e. in the context of the Budget Act and other public finance-related laws supporting the improvement of the regularity and efficiency of the use of public money to a more desirable extent. The quality of the European Court of Auditors' activities, in addition to the improvement of the micro-level impact, also depends to a significant extent on the way in which its evaluations and proposals contribute to the effectiveness of the legislative, law-making and decision-making work of the European Commission and the European Parliament (Stephenson, 2015).

The quality of government as a whole is extremely difficult, if not impossible, to define in precise terms (Rothstein, 2011). The quality of government is often linked to factors such as economic development, growth, people›s well-being and happiness, or the rule of law and democracy. According to Rothstein (2011), high quality government, including public finance, is objective, impartial, and does not put the interests of itself or anyone else before the interests of the community and society in general. Corruption is minimal and isolated. The government has a high level of cooperation with all stakeholders, including those who are in any minority. Thus, even

when in the majority, governments seek to channel minority opinions and interests into consensus-based decision-making (Mallory, 2018). As a result, or as a feedback loop, there is a high level of cooperation and capacity in the economy and society, and a high level of social trust, including in government. This is associated with reduced inequality in economic and social terms.

In essence, quality governance (Löffler, 2002) means that the government, with few mistakes, builds and maintains a high level of public trust in its actions, maintains and develops citizens› willingness to cooperate with the government, while enforcing the law. Other schools of thought emphasise the need for governance to be value-based, i.e. to enforce legislation in a way that institutionalises the values necessary for the development of the economy and society (Paanakker – Masters – Huberts, 2020). These values, which determine the quality of governance, have also been identified (Paanakker – Masters – Huberts, 2020, pp. 5-6):

1. Sensitivity to society›s preferences
2. Democratic, participatory order
3. Legality, fairness and transparency:
4. The rule of law
5. Impartiality and anti-corruption
6. Efficiency in general and effectiveness of procedures
7. High level of professionalism and culture
8. Stability but openness to innovation

Trends in quality governance and public finance such as Rothstein (2011, 2021) or Mallory (2018) formulate principles of a general political science nature, with little emphasis on explicitly economic aspects. Of course, politics cannot be separated from economics, the two fields are intertwined, but the professional in charge of public finance quality improvement faces a difficult challenge if he wants to improve the whole or a subsystem or organisational unit of the government or public finance system on the basis of political science. Effective quality improvement requires a system of objectives and instruments based on economics and economic science, which must of course be applied with due regard for political considerations. The Paanakker-Masters-Huverts approach is therefore more relevant to the topic of this study, but even more so those approaches that focus on the implementation of quality improvement and how it is done, rather than on political science principles. Quality management and quality development are common fields of technical, ‹engineering› and economic sciences, and thus they need to be more specific, measurable and calculable than what is accepted and common in political sciences (Cole 2011). Indeed, the application of the Lean-Six Sigma model in public finance requires, on the one hand, the engineering perspective that only what can be measured exists, and on the other hand, it effectively requires that all stakeholders, internal and external, pull in the same direction, which requires a precise identification of their requirements and their reconciliation (Cole 2011). An explicitly defined set of goals and instruments is more likely to enable quality improvement in the governmental, public finance system than the intention to comply with various declared principles, as international examples already show (Weare, 2020; Abaidoo – Blankenberger, 2022).

The perfect quality and its model

Perfect quality, as we shall see, is mostly a theoretical construct, impossible to implement in practice. This is not primarily because it is always possible to specify more stringent requirements than before, but because of the complexity of the problem. In essence, Taguchi *(1993)* has already defined the highest quality, which, beyond the natural environment, does not cause any loss to any person affected by the production or use of the product or service. By loss Taguchi *(1993)* also meant sacrificed utility, and in this way he was essentially indirectly defining perfect quality.

Of course, the nature of the product or service depends on which group is affected in what way and to what extent. However, the way in which each of the groups concerned is defined in terms of the opportunities it has to assert its interests is different.

Since stakeholders feel affected by the way the company operates, they also have requirements – if not all of them in full – in relation to the products produced or services provided by the company.

Given a product or service X. Product X has s number of stakeholders (ST). Stakeholder does not refer to a type of stakeholder, but to separate individuals or groups acting as a unit.

$$ST = [st_1 \dots st_s]s > 1 \tag{1}$$

Product X has n number of measurable attributes (CH), defined partly by the producer›s product specification and beyond that partly by the stakeholder›s self-created requirement categories. The price of the product is also a product feature. We can assign a number t of nominal performance values to the number *n* of property categories at the time of contracting, which is taken as the initial time. If the product manufacturer does not discriminate against any stakeholder in terms of product characteristics, all stakeholders are affected by a product with the same nominal performance.

$$CH_{kiindulási} = \begin{bmatrix} ch_{(1,1,1)} & \cdots & ch_{(1,s,1)} \\ \vdots & \ddots & \vdots \\ ch_{(n,1,1)} & \cdots & ch_{(n,s,t)} \end{bmatrix} n, s, t > 1 \tag{2}$$

The number of measurable attributes n have the same number *f ft* of function-like relationships in both the short and long run. Each *ft* function can establish a function-like relationship between *all non-repetitive* combinations of *n* product attributes. The maximum number of functions *ft* is given by *f*, the binomial theorem, assuming that a function can describe a relation between at least two product properties.

$$FT_{kiindulási} = \begin{bmatrix} ft_{(1,1)} & \cdots & ft_{(1,f)} \\ \vdots & \ddots & \vdots \\ ft_{(n,1)} & \cdots & ft_{(n,f)} \end{bmatrix} 1 \leq f \leq (2^{\mathrm{n}} - n) \tag{3}$$

The interrelationship of individual product attributes may change over time. On the one hand, the property composition of the related product properties may change, on the other hand, the relationship itself may change, if the set of related product properties does not change. The initial FT function combination can therefore change from period to period, which has an impact on the current CH product characteristic combination.

$$FT_t = \begin{bmatrix} ft_{(1,1,1)} & \cdots & ft_{(1,f,1)} \\ \vdots & \ddots & \vdots \\ ft_{(n,1,1)} & \cdots & ft_{(n,f,t)} \end{bmatrix} 1 \leq f \leq (2^{\mathrm{n}} - n) \tag{4}$$

Each of the s number of stakeholders has separately n number of requirements (RQ) for each product attribute category – in principle – for each t time period. Each requirement is either a non-negative numeric value or an inequality, depending on whether the value requirement is the requirement itself, or a value less than or greater than the requirement.

$$RQ_t = \begin{bmatrix} rq_{(1,1,1)} & \cdots & rq_{(1,s,1)} \\ \vdots & \ddots & \vdots \\ rq_{(n,1,1)} & \cdots & rq_{(n,s,t)} \end{bmatrix} rq \geq 0;\ n, s, t > 1 \tag{5}$$

The stakeholder requirement values are compared with the nominal performance value(s) per requirement category. It therefore does not matter how nominal performance is perceived by stakeholders. The requirements do not refer to an ideal case, but to a better-than-ideal case, i.e. an excellent case.

A product is of perfect quality if the intrinsically consistent stakeholder requirements system does not contradict any of the functional relationships between the product attributes, and the nominal performance of the product at time t fully satisfies all stakeholder requirements for all attributes.

$$CH_t - RQ_t \geq 0 \begin{bmatrix} ch_{(1,1,1)} & \cdots & ch_{(1,s,1)} \\ \vdots & \ddots & \vdots \\ ch_{(n,1,1)} & \cdots & ch_{(n,s,t)} \end{bmatrix} - \begin{bmatrix} rq_{(1,1,1)} & \cdots & rq_{(1,s,1)} \\ \vdots & \ddots & \vdots \\ rq_{(n,1,1)} & \cdots & rq_{(n,s,t)} \end{bmatrix} \geq 0 \tag{6}$$

Reasons for the inconsistency of the requirements and the need for consistency in the short term (1-3):

1/a The inherent contradiction of a stakeholder›s requirements with themselves, due to a lack of respect for the logical consistency of product attributes.

1/b A function-like product characteristic is valid within a stakeholder›s requirements system for requirements on variables of a given function if the relationship between the nominal values or ranges of values of the requirements can be described also by the given function. If the stakeholder›s requirements affected by a given function are also defined in a value interval fashion, consistency between requirements is ensured if the range of interpretation defined by the requirement(s) associated with

the independent variable(s) of the product property function is accompanied by a solution from the set of value sets defined by the requirement(s) associated with the dependent variable(s) of the dependent variable(s).

$$rq_{(n,s)} := ft_{(f)}(i,j,\dots), ahol\ n \in \{1,\dots n\};\ s \in \{1,\dots s\};\ i,j,\dots \in (\{1,\dots n\} - \{n\}) \quad (7)$$

2/a External contradiction between the requirements of two different stakeholders, because their requirements for a given product characteristic are not compatible with each other at time t.

2/b Two stakeholders› requirements for a given product attribute at time t are consistent if one has at least a value interval definition and a common value element with the other, or if both have a nominal value definition and the values are the same.

$$rq_{(n,i)} = rq_{(n,j)}\ ahol\ i,j \in \{1,\dots s\};\ és\ rq_{(n,i)}, rq_{(n,j)} \in R^{+}$$

$$[rq_{(n,i)}, rq_{max}] \leq\geq [rq_{(n,j)}, rq_{max}] ahol\ i,j \in \{1,\dots s\}; és\ rq_{(n,i)}, rq_{(n,j)} \in R^{+}$$

$$rq_{(n,i)} \in [rq_{(n,j)}, rq_{max}] ahol\ i,j \in \{1,\dots s\}; és\ rq_{(n,i)}, rq_{(n,j)} \in R^{+} \quad (8)$$

$$[rq_{min}, rq_{(n,i)}] \leq\geq [rq_{min}, rq_{(n,j)}] ahol\ i,j \in \{1,\dots s\}; és\ rq_{(n,i)}, rq_{(n,j)} \in R^{+}$$

$$rq_{(n,i)} \in [rq_{min}, rq_{(n,j)}] ahol\ i,j \in \{1,\dots s\}; és\ rq_{(n,i)}, rq_{(n,j)} \in R^{+}$$

Összefoglalva:

$$rq_n^{*} := \{rq_{(n,1)}\} \cap \{rq_{(n,2)}\} \cap \dots \cap \{rq_{(n,s-1)}\} \cap \{rq_{(n,s)}\}\ ahol\ rq_{(n,s)} \in R^{+} \quad (9)$$

3/a If the internal consistency of the incomplete requirements systems of individual stakeholders is ensured by respecting the product property functions individually, while the consistency of the requirements of all stakeholders is also ensured for all product attributes, the resulting consistency may not respect the system of logical relationships of the product attributes for a given pair of product attributes, as a necessary but not sufficient condition.

3/b For the requirements related to a given product property function, if consistency can be ensured for all stakeholders on a requirement-by-requirement basis according to section 2/b, then in addition, the correspondence between the domain of interpretation and the set of values according to section 1/b shall also be valid between these related requirements.

$$rq_n^{*} := ft_{(f)}(i,j,\dots), ahol\ n \in \{1,\dots n\};\ s \in \{1,\dots s\};\ i,j,\dots \in (\{1,\dots n\} - \{n\}) \quad (10)$$

Reasons for the inconsistency of the requirements system and the need for consistency in a dynamic approach (4-5):

4/a There is an inconsistency between a product property depending on whether it is short-term or long-term, for a later period. The discrepancy arises because the values determined at the – initial – time of contracting for each of the product char-

acteristics that will exist at later times t were not met at time t, as different values were determined as a result of the function-like relationships that determine the current product characteristics.

$$ch_{kiindulási(n,s,t)} \neq ft_{(1\rightarrow f,n,t)}(ch_{(n,s,t}) \tag{11}$$

4/b The value predetermined in the contract becomes the actual product characteristic value at the given time t if the contingent relations existing at time t are not distorted in relation to the plans, i.e. the original contract is respected and is neither modified nor violated in this respect.

$$ch_{kiindulási(n,s,t)} := ft_{(1\rightarrow f,n,t)}(ch_{(n,s,t}) \tag{12}$$

5/a The requirements for a particular product attribute of an intrinsically short-term or long-term non-contradictory set of requirements of a given stakeholder In this case, there is no overlap between the requirements for different times t.

$$\{rq_{(n,1}\} \cap \{rq_{(n,2)}\} \cap \cdots \cap \{rq_{(n,t-1}\} \cap \{rq_{(n,t)}\} = 0 \; ahol \; rq_{(n,t)} \in R^{+} \tag{13}$$

5/b It is acceptable for a stakeholder to have different requirements for a given product characteristic at different points in time t. However, they should be consistent with each other at least to the extent that at least one value can be integrated in the requirements of any time t. If the requirements are defined by entering a specific value, consistency can only be ensured if all numerical values are the same, regardless of the time period. Where an interval is used to define the requirements for certain times t, the different intervals should have at least one identical value element to ensure consistency.

$$\{rq_{(n,1}\} \cap \{rq_{(n,2)}\} \cap \cdots \cap \{rq_{(n,t-1}\} \cap \{rq_{(n,t)}\} :> 0 \; ahol \; rq_{(n,t)} \in R^{+} \tag{14}$$

So creating perfect quality is a very complex task. Implementation depends to a large degree on the extent to which the stakeholder requirements are consistent with the product attributes, on the one hand, and with the product itself, on the other. Until these alignment problems are eliminated, it will be impossible to comply with the whole system of requirements, which is fraught with contradictions. On the other hand, of course, the product characteristics and the interrelationship between them are not set in stone. Hence, adaptation to the requirements can be achieved, but also the above-mentioned inconsistencies in the requirements system can be reduced by changing the product characteristics.

Conclusions

The quality of the functioning and activity of the public finance system is often difficult to judge. Perhaps the easiest way would be to assess compliance with the relevant legislation, but we know that disputes of a legal nature are not unknown in the public finance system either. However, to judge efficiency and effectiveness, it would be necessary to precisely define the requirements of the public finance system, which is not an easy task even in the case of economic policy requirements, and we have not even mentioned the needs and requirements of the economy and society.

The public finance system is primarily designed to meet the requirements of those who can exercise power over it, essentially the Government, the legislature and the judiciary. The public finance system often only meets or would meet the requirements of voters and customers indirectly, if at all. This is what the 'good governance' movement wanted to change (Rothstein, 2021). However, the stakeholder demands on the public finance system are necessarily more diverse, due to the social involvement, and the demands are more fraught with contradictions. In the public finance system, there is usually no way to resolve the mismatch between customer requirements by market segmentation or by giving up certain customer groups (Olander, 2021).

Despite the fact that the requirements of stakeholders outside the power branches of the state for the public finance system are to be communicated by the power branches to the public finance system, the bodies of the public finance system cannot refrain from making efforts to become aware of these stakeholder requirements and to communicate them to the authorities, and to supplement them with compliance proposals. The public finance system is part of the 'front office' of the branches of power, especially government, and thus cannot do without the information it provides on the requirements of stakeholders. It is essential that the possibility for stakeholders to voluntarily express their requirements to the public financial institutions is also channelled through IT (Carlitz, Lust, 2021).

The full set of requirements of the stakeholders identified is likely to be fraught with a number of inconsistencies, and unless these are resolved, the requirements need to be prioritised in order of importance, which requires exploring their interrelationships and the possibilities for interchange. This is a very time-consuming, costly and information- and knowledge-intensive task, if done professionally, and is also fraught with a high degree of uncertainty, so subjective considerations are likely to play a significant role in the decision on the ranking, and the requirements of those in power will clearly take precedence. The perfect quality model offers a way out of this trap, which in many respects is a model that does not require a hierarchy, as the first step is to align all the requirements of all stakeholders. A key element in creating consistency is to influence stakeholders' requirements through education or even lobbying. This is not necessarily a hopeless task. According to Edvardsson and Enquist *(2009)*, an excellent example of reconciling different and initially conflicting requirements is the Swedish home furnishing company IKEA, which has

even achieved a significant change in the consumer requirements system in order to meet as much as possible the requirements of its suppliers and production of goods as a priority, while at the same time its target groups not only accept this situation but are also very satisfied with it.

In the public finance system, administrative, judicial and prosecutorial bodies in Hungary have the possibility to obtain direct information from appeals against their decisions about the requirements of the appellants, whether or not they are in line with the relevant legislation. In the case of large-scale audits by the State Audit Office, the action plan submitted by the audited organisations can provide similar information. However, while the State Audit Office has a formal relationship with the legislature to make proposals and comments on legal requirements, this is not generally the case for other public financial institutions, but only for ministries. In this way, any attempt to influence and change the requirements of those exercising state power in order to eliminate the contradictions present in the overall system of requirements can only be successful to a limited extent.

The contradictory nature of the whole system of requirements can also be eliminated by modifying the requirements of the other stakeholders rather than those of the formal authorities. Through their activities, public bodies subject other customers to a kind of socialisation, but the effect of this can only be felt over a longer period of time, so that not only the behaviour and activities of those affected evolve in the desired direction, but also their actual requirements. It makes a difference whether the people involved become just rule-followers, or whether they embrace the system of rules in a committed and honest way. Therefore, education has a key role to play in harmonising the requirements. Education in this area refers to the way in which stakeholders make others aware of their own and other stakeholders› requirements, their components, their design and, above all, their justification. In this way, stakeholders can possibly persuade each other to modify their own requirements in order to make them more similar, less contradictory or even identical to those of other stakeholders, when presented to the public finance system. In this sense, the transparency of the functioning of budgetary bodies becomes even more important, so that stakeholders can understand the requirements behind the processes that take place there, their rationality, legality and justification. In the field of education, the public finance organisations are not in a very favourable position, as only the national tax authority is involved in any meaningful information activities in the public administration. In this respect, however, the State Audit Office of Hungary and the Hungarian National Bank stand out as well, as they are engaged in actual educational activities – directly or indirectly through educational organisations – with the explicit aim of developing the system of requirements of stakeholders outside the state power, making the entire system of requirements more inconsistent, thus supporting the quality development of the public finance system. ■

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