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**Validating the Italian Public Service Motivation
Questionnaire**

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*This country cannot afford
to be materially rich
and spiritually poor*

John Fitzgerald Kennedy

*The motivation of doing good for your country
is the highest degree of citizenship*

My own authorship

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ABSTRACT

Public Service Motivation (PSM) is a theorized attribute of public employees that provides them with the desire to serve the public interest. Although PSM definition varies among studies, its fundamental principle is that individuals are oriented to act in the public sector for the purpose of doing good for others and society. The PSM theory, thus, provides a useful basis for understanding the public employees motivation. However, the various studies have not always used the same PSM measurement instrument due to the construct complexity and differences among cultures. The purpose of the present study was to arrange a PSM questionnaire for the Italian public context. Eighty-one PSM items were collected from various questionnaire appeared in literature and submitted to a *translation-back translation* procedure. A *pilot study* grounded in a sample composed by 216 public employees verified the discriminating power of items and assessed their understandability. As a consequence, the number of items was reduced to 62. After randomization, the items were administered to a sample of 780 public employees and, through a series of *factor analyses*, a four-dimensions PSM model was obtained. The final outcome of this study is the *Italian PSM Questionnaire*, which is the first PSM questionnaire based on an Italian normative sample. The questionnaire includes a method to check the reliability of the answers of respondents as well. Factor score analyses of normative sample are illustrated. The questionnaire can be used for open recruitment procedures, as well as management, and development of public employees.

Keywords: *Public service motivation, Public sector, questionnaire.*

INTRODUCTION

During the nineties, the North American debate concerning *public management* has introduced the theory of *Public Service Motivation*, increasing the attention and importance of this construct. *Public Service Motivation* refers to the motivation to performing a job that is addressed to promote the public interest and to provide a service to others, getting satisfaction and gratification from it.

Even in Italy, the necessity to learn how to understand, measure and manage the motivations of applicants for or employees in the positions at the Public Administrations is constantly increasing. Public managers consider the selection in public competitions important because the recruitment of a person who has wrong principles for a public position causes a negative impact on the individual performance and on the organizational environment, becoming a situation of hard management. Additionally, the cost of a wrong recruitment for the Public Administration is hard to calculate, but certainly is high. Contrasting points of view and different readings of reality often causes disputes between the institution and employees. These disputes often derive from divergences between the individual motivation of the employee and the public service principles. However, the efforts to contain the negative behaviour within the Public Administration are mainly delegated to *personnel administration* and *internal audit* departments, which intervene with an approach that most of the time culminates inevitably in prescription and control¹. Targeting the motivations to public service can contribute to a new concept about public employment. Nowadays, reflection about the general conditions of public sector and the working conditions that motivates the employees to work for collective interest is crucial. In this way, good conditions and high motivation could make the employee proud of the organization in which he/she works for. This should be the goal - and no longer the dream - that every public administration should pursue. In this framework, the *Public Service Motivation* constitutes an important construct that may allow the public administrations to attract and retain the most adequate people for public service.

¹ A basic but fitting example is the adoption of the timekeeping badge. This is a method of archaic management, which sometimes implies a maniacal inspection of the schedules in place of a more virtuous and modern government of the employees through the goals, the deadlines and the citizens feedback. The paradox which has been created is that today no one disputes the existence of functions equipped with people paid to check how much time other people have been spending inside an office. At the same time, it appears unrealistic to think that these functions may instead be replaced by other types of staff composed of people trained for the definition of the individual goals of every public employee and to provide a positive support to achieve them.

The aim of this research was to offer a practical tool to measure the PSM in the Italian Public Administration. This aim emerges from our personal interest in increasing the importance of motivation in public service. The *Italian PSM Questionnaire* - whose construction and validation is the topic of this research - can represent a useful tool for undertaking recruitment procedures which take into account the motivation to public service of the candidates.

Nowadays, public administrations seem increasingly oriented to follow the recruitment model proposed by the Revenue Agency, an organization that in the last fifteen years has represented a virtuous example of cultural alteration in this sense in Italy. Indeed, this organization changed from the public competitions that were based only on **specialized technical knowledge** to a new modality of public competitions that also take into account the **organizational skills** (Mc Clelland, 1973). In a further perspective, the personnel recruitment also based on measurement of **motivations to public service** may be the third ring for the growth of a public employment population which can make the democratic system more solid and the institutions more efficient.

The *Italian PSM Questionnaire* can be effectively used even for the personnel who is already working in the Public Administration. In fact, its use may prove to be strategic in the following cases: (a) proceedings of mobility, (b) vertical development and (c) training activities. In the first two cases, it can help to identify employees with adequate motivations to a given task or position. *In fact, someone who acts for public service must be motivated and must adhere to the criterion which is constituted by fundamental principles of the public interest.* The tension between a personal interest and public interest may be hidden into the daily activities of a public employee. A strong motivation to the general public interest can provide employees with the courage to resist external pressures which are often in conflict with the public interest, guiding them to make the right choices. Secondly, the *Italian PSM Questionnaire* can be used as a tool for identifying those employees who need specific vocational training courses. Staff training is the centre of the process of change and requalification in the Public Administration, being a complex process which aims at the development of staff and the improvement of public services. The ultimate goal of training is that citizens may find a continuous improvement of service that is provided to them by the public administrations. Consequently, employees with deficient motivations towards the public interest should be trained to share the ethic and principles of the public sector in order to close any behavioural gaps that can derive from a mismatch between individual and public motivations. In this way, inconsistent actions that are incoherent with the public interest can be prevented, as well as negative behaviour which may risk exposing the employee to legal consequences and damaging the image of their institutions.

The first part of this dissertation presents the theoretical framework of the PSM. The cultural background in which the PSM was originated is illustrated (Chapters 2 and 3), as well as the origin of a first questionnaire for measuring it (Chapter 4). Moreover, the evolution and generalization of the PSM construct across countries outside the United States – where it was originally introduced – is explained (Chapter 5). Finally, the principles that have inspired the construction of the *Italian PSM Questionnaire* are explained (Chapter 6) and considerations about PSM and social desirability are introduced (Chapter 7).

The second part describes the methodological approach used for the construction and validation of the *Italian PSM Questionnaire*. The method of selection of items is highlighted (Paragraph 8.1) and the statistical techniques used to obtain the final version of the questionnaire are fully explained (Paragraphs 8.5, 8.9, 8.11 and 8.12). A method for defining a criterion for the reliability check of the subject's answers in the final questionnaire was identified (Paragraph 8.13). Finally, the factor score analyses of the normative sample used to construct the questionnaire are illustrated (Chapter 9).

PART 1 – THEORETICAL BACKGROUND

1. MOTIVATING AND BE MOTIVATED

Motivation refers to needs, desires, values, expectations and personal life plans. It is defined as an organized configuration of subjective experiences, which allows the explanation of the beginning, direction, intensity and persistence of a behaviour directed towards a purpose (De Beni & Moé, 2000). In professional field, a purpose can be affected by extrinsic variables, which refer to reasons external to the person, such as increased pay, recognition, praise or promotion (Beer & Walton, 1990). On the contrary, intrinsic variables are more directly related to activities that are inherently interesting or enjoyable for the person. For instance, the wish to fulfil a task can derive both from (a) the sole personal interest and satisfaction that derive from doing it and (b) the purpose of taking tangible rewards that derive from having done it. The former purpose will provide an *intrinsically motivated behaviour*, the latter an *extrinsically motivated behaviour*. Ryan and Deci (2000: pag. 65) clarified that intrinsically motivated behaviors are performed out of interest and satisfy the innate psychological needs for competence and autonomy; extrinsically motivated behaviors are executed because they are instrumental to some separable consequence. In brief, the distinction between extrinsic and intrinsic motivation appears particularly fitting to the professional context.

The classic economic theories had the intent to interpret the individual behaviours exclusively through the lens of rationality. Consequently, they presented a vision of human beings as selfish (*homo oeconomicus* – Gray, 1987). This means that human beings would be likely oriented to bring out personal gain and to pursuit personal interests as their sole goal. The reasons other than self-interest were either not taken into consideration or considered as low relevance, as if those various reasons were unable to explain individual behaviours. However, this conjecture began to be considered reductive, even within the same economic discipline from which it is generated (Nyborg, 2000; Siebenhüner, 2000; Söderbaum, 1999). A vivid example is represented by the Nobel Prize in Economic Sciences awarded in the 2002 to the psychologist Daniel Kahneman for

his contributions to the theories of decision². That prize demonstrated the measure in which the economic disciplines began to refuse the idea that human beings are rational and that human behaviour is guided only by rational reasons. Moreover, new empirical evidence and experimental studies increasingly demonstrated the importance of non-selfish motives (Fehr & Falk, 1999; Fehr & Goette, 2000; Fehr, Kirchsteiger & Riedl, 1998). The *Motivation crowding theory* (Frey & Jegen, 2001) even suggested that extrinsic type of motivating factors - such as monetary incentives - may weaken the intrinsic motivation. Indeed, according to Frey (2005), an excess in extrinsic motivation – for example a higher salary – may cause a decrease in intrinsic motivation leaving unchanged or even decreasing commitment at the workplace (*crowding out effect* – Frey, 2005). More recent studies, however, have suggested that when managers become more aware of the variables involved in the overall motivational processes, the external incentives that they bestow do not bring a decrease of intrinsic motivation of employees or of their productivity (Fang & Gerhart, 2011; Fiorillo, 2011; Thompson, Aradhyula, Frisvold & Tronstad, 2010). These results are consistent with a previous meta-analysis which found that tangible rewards diminish intrinsic motivation only when they are expected by the employees and bestowed simply for having done simple tasks instead of having been conferred unexpectedly or after having reached an objective (Cameron & Pierce, 1994).

If we acknowledge the McGregor's "Y" Theory (1960)³, according to which the human being is intrinsically motivated, then the challenge for the organizations is to ensure that employees focus their inner energy in activities that are relevant for the organizations themselves. Minkler (2004) suggests several possible ways to encourage employees, referring to five variables:

1. "extrinsic incentives" and "disincentives to opportunism" (i.e., monetary benefits on the one hand and threats of dismissal and punishments on the other hand);

² Kahneman received the Nobel Prize for Economics in 2002 for having integrated results of psychological research in economical science in regards to the theory of decisions in conditions of uncertainty. Through brilliant experiments, conducted together with a friend and colleague, Amos Tversky, the microeconomic theories were put into question. These theories foresaw that the decision makers' rational behaviour objective is to maximize their benefits. In particular, for the first time Kahneman and Tversky showed in a truly convincing way how the decisional process violates systematically some principles of rationality. Thanks to these contributions, Professor Kahneman of Princeton University is considered one of the founders of Behavioural Finance .

³ According to McGregor's X,Y Theory (1960), in a professional setting there are two ways to interpret human behaviour. The first (X Theory) holds that human being is fundamentally lazy, thus not inclined to work, lacking initiative, irresponsible, and averse to change. The second (Y Theory) holds that people are motivated, inclined to work, capable of autonomy, self-control and willing to take responsibility.

2. “satisfaction of intrinsic motivations”, expanding the meaning with the concepts of loyalty and trust within the organization;
3. “organizational justice”, divided into distributive equity (Adams, 1965) and procedural justice (Leventhal, 1976): the former refers to the perception of equality shown in recognizing the contribution made by the individual to achieve a result; the latter concerns the fairness of procedures used to achieve a result⁴;
4. “moral motivations”, which do not only derive from the work environment, but also from the natural predispositions of the individual, from personal ethics and life surroundings (e.g., the past experiences and/or the fact of being more sensitive and altruists than others);
5. “peer pressure”, which takes into consideration the presence of social standards and values shared by the work group and forms of control and peer pressure among colleagues.

In organizational reality, the five variables listed by Minkler overlap and intertwine each other, thus bringing out the complexity of work relations and the numerous interactions between motivation, incentives and levels of satisfaction. It also highlights the importance of perceived dimensions, rather than the actual dimensions that are measurable and objective. In fact, the human behaviour can be considered a direct response to reality only rarely; more often it is instead a reaction to the perception of reality. Thus, the complexity of variables involved on workplace, the presence of intrinsic and extrinsic motivation, perceived justice and morality, mechanisms of control and trust within the organization, generates diversity among the various people in the way of understanding the job and of committing to its execution. Moreover, the motivations are not stable and crystallized within the individual, but can vary in time also thanks to - or because of - organizational policies, behaviours of other individuals with whom the employee interacts, learning processes and self-growth (Osterloh & Frey, 2013). Therefore, organizations deal with differently motivated employees, but also individuals that are otherwise prepared to change their personal preferences, to learn from the work environment and, eventually, to be motivated. In this way, great attention to the socio-organizational relations arises (Andreoni, 2005), in which the point of arrival

⁴ A more complete definition of “Organizational Justice” also takes into consideration “Interpersonal Justice” (Bies & Mogan, 1986) and “Informational Justice” (Colquitt, 2001). This deals with and reflects the perceived and manifested behaviour in relationships with others focusing on transparency, clarity of the information provided regarding the merits and job tasks to be performed.

is the reconciliation between job characteristics and motivations of the employees. Nowadays, a challenge for the organizations is thus to identify and understand the process and mechanisms that can push the individuals to act mainly in the interest of the organizations itself. In this framework, it is particularly important the way in which employee's intrinsic motivations are welcomed. In the next chapter it will be explained how particular types of intrinsic motivation can meet adequate cultural *humus* into the public employment.

2. MOTIVATION IN PUBLIC EMPLOYMENT

This chapter examines the spirit of those who work in public administrations in order to better understand their motivations and the sources of their satisfaction. Understanding the sources of satisfaction is a prerequisite for creating a work environment that best enhances the most important resources for the proper functioning of public administrations, which are the *human resources*. Furthermore, deepening the understanding of the motivations of public employees means to better understand how to act to make the democratic system more solid and the institutions more efficient.

The origin of the motivational concept in public employment can be traced back to 1982, when Rainey, in the article “*Reward preferences among public and private managers: in search of the service ethic*”, illustrated the results of his study performed on middle managers of four public agencies and four private organizations. The intent of the Rainey’s study was to understand if there is any difference between the rewards preferred by the two types of managers (i.e., public vs private). The results showed higher scores for public managers concerning the service towards the community and the work aimed at helping others. Rainey, thus, suggested the idea that public and private employees have different motivational basis. In particular, the public employees would be attracted by motivations that concern the community. This does not mean that public employees are not interested in themselves but highlights the fact that the availability to help others and the enrichment of common goods are strong motivations in the public sector rather than in the private one.

After the rise of the *New Public Management*⁵ (Aucoin, 1990; Dunsire, 1995; Luder, 1996; Naschold, Oppen, Tondorf, & Wegener, 1995; Reichard, 1996; Schedler, 1995) the issue of motivation in public employment and involvement of the people in the organizational goals has become very topical for the following reasons:

⁵ The New Public Management is a style of governance risen during the nineties in the United States following the example of the United Kingdom’s public administrations. It is a paradigm of management that intends to integrate both the administrative law and traditional management procedures with a new methodology more oriented to the goal, which is the public interest. The New Public Management is an organizational model borrowed from the private sector and oriented to a higher involvement of public administrations on the management of the public goods to allow greater flexibility and cost-effectiveness. That goes through a series of organizational provisions: reengineering of the red tape in a more effective way, organization through processes and objectives, measuring the performances and checking of results, simplification of the procedures, greater attention to the quality, use of the technological innovations. The change of culture/cultural change postulated by the New Public Management should involve the entire public system including the relationship between politics and public administrations, setting up an abandonment of the public organizations centralist dirigisme.

- computerized processes and, more generally, the entire tendency of *Information and Communication Technology* (ITC)⁶, which is aimed at improving effectiveness, efficiency and quality of public services, can be fully integrated with administrative procedures and can replace previous systems⁷ only if the organization involves and motivates the employees; this applies, in particular, for all organizations that provide services whose quality is related in large part to the quality of professional performance and behaviour of the single individual;
- involvement of employees is essential to redevelop the public administrations image among the citizens, an image that also goes through the attitude of the employees in their relationship with the users of the public services.

As a consequence, in the literature about public administration, the studies of public employees' motivation have played - and still play – an important role.

Especially in the American society the public employee's motivation would differ significantly from that of other individuals of the society itself. It is no coincidence that through the nineties the North American debate on the issue of public management introduced with increasing attention and importance the theory of *Public Service Motivation* (PSM), also known as the theory of motivation for public employment. The PSM theory assumes that performing a job that aims at promoting the collective interest and providing a service for others, can be a source of satisfaction and gratification in itself. The theory of PSM is thus placed in sharp contrast compared to the rational choice theory, which assumes that the individuals make decisions to maximize one's own usefulness⁸. On the contrary, the PSM refers to the desire to help others to improve their own conditions and to contribute of common good. As a consequence, there is a difference between the gratification provided to a given person by a job in the public sector or a job in the private sector. A

⁶ The ITC represents a set of innovations occurring through methods and technologies that generate the systems of transmitting, receiving and processing information.

⁷ The author refers to the "climate of innovation" issue. In particular, the focus is on the "implementation gap". The "implementation gap" is the mismatch between what is prescribed by regulatory norms and what is really practiced. With respect to the ITC, the reference to the "implementation gap" is relative to regulatory norms, which promote the use of new technologies within the public service (e.g., the *e-gov 2012 plan*) and often do not find confirmation at the operational level. In Italy, what is evident is the weakness and inability to implement the reforms, particularly in regards to those that are technology-driven. For instance, even though a legislation obligates the public administrations to operate in a paperless logic, they still operate in the paper oriented perspective mode.

⁸ The topic was presented and discussed in the previous chapter.

job in the public sector can be effectively more motivating for some type of people, even if private sector jobs have often better pay conditions and higher prestige. Of course, we thereby assume that a job in the public sector effectively aims at providing some form of assistance in the name of general interest of a certain community or of society as a whole. Some forms of job seeking could be driven by having a secure job, which is a typical feature of public employment. Probably these kinds of reasons are also increasing in the current historical period due to the economic crisis. However, PSM theory does not take into account these external reasons. PSM theory just assumes that a part of subjects who are most likely to aspire to have a job in the public sector would be those who are driven by an intrinsic motivation, which can be satisfied by doing something for the others and for the common good.

Brewer, Selden, Facer and Rex (2000) were interested in understanding how individuals perceived the motivations related to public service. They interviewed 69 students and employees of the United States. Four different types of motivation for public service emerged:

- the opportunity to help others, attributable to those that the authors call the “Samaritans”;
- the sense of civic duty, ascribable to the “Communitarians”⁹;
- the most relevant problems for the people, as the common good or defending the homeland, which motivates the “Patriotics”;
- feeling of social justice, which motivates the “Humanitarians”.

From contributions of Brewer et al. it is possible to draw a fundamental lesson: if it is true that public employees tend to be more available to help others and to pursue the common good (Rainey, 1982), it must also be taken into consideration that the motivations that steer behaviour towards these directions are different from person to person. Therefore, in general the public organizations should provide facilitating conditions so that every employee can express his/her motivations, independently of whether he/she is a Samaritan, Communitarian, Patriotic or Humanitarian one. According to Wright (2004), providing facilitating conditions means to guarantee “specific, difficult and doable goals”, “absence of ambiguity of the organizational goals” and “absence of procedural constraints”. Wright added that the three mentioned variables are relevant to facilitate the motivation at work. In another study, shown during the *International*

⁹ The term deals with the ideology which places emphasis on the individual and his community, be it the family, the people who belong to the same geographical area, the individuals who have shared the same historical backgrounds or, more likely, those who have a broad orientation towards personal interaction.

*Conference on motivation to the public employment*¹⁰, Jung and Rainey (2010) have observed that “specific objectives”, “clear organizational mission”, “high involvement toward the objectives” and “high perception of the importance of the objectives”, increase the likelihood that the American civil employees feel their tasks such as motivational factors. During the same conference, Langbein (2009) added that in order for public employment to be defined as good, it must include “confidentiality”, “clear individual objectives”, “cooperative environment”, “clear link between individual tasks and organizational mission”.

In Italy a common guideline for all public administrations could be extracted from the manual of organizational well-being (Avallone & Bonaretti, 2003: pp.42-44). According to the manual, a good public administration is the one that (*italics is ours in relation to the topic treated*):

<<Sets up a healthy work environment, comfortable and welcoming [...] Places explicit and clear objectives and is consistent between statements and operating procedures [...] Recognizes and values the skills and contributions of employees and stimulate new potential [...] Listens to the instances of the employees [...] provides information relevant to the job [...] Takes all measures to prevent accidents and occupational hazards [...] Stimulates a rational, frank, communicative and collaborative environment, [...] Ensures operational smoothness, quick decision making, supports the action towards the goals [...] Ensures equal treatment on salary, assignment of responsibilities, staff promotion [...] *Stimulates the sense of social utility in employees,, contributing to give a meaning to the work day of the individuals and their feeling of contributing to the common results* [...] Is open to the external environment and to technological and cultural innovation.>>

The Manual of organizational well-being has been produced within the program “Cantieri” of the *Italian Department of public service*. The excerpt mentioned above offers a list of actions to evaluate whether a public organization is in good health. However, its contributions may also be valid guidelines to offer conditions facilitating the motivations of the public employees. In both cases (i.e., providing healthy working environment and maintaining high motivation in the employees) the mentioned guidelines can be associated to organizational performance. With regard to this, Boardman and Sundquist (2008) proposed to introduce a new explanatory variable - named *Perceived effectiveness of public service* - to quantify the perception of public employees regarding

¹⁰ *The Public Service Motivation research Conference* was held at the *University of Indiana Campus* in June 2009, sponsored by the *School of Public and Environmental Affairs (SPEA)* of the *University of Indiana* and by the *Public Management Institute, Katholieke Universiteit Leuven (KUL)* of Belgium. It brought together international scholars who are conducting research on *motivation in the public service, altruism and other related issues* and had the objective to stimulate the new generation of researchers on the subject of motivation in the public work sector.

benefits that their administration provides to the community. The authors discovered that an increase in perceived effectiveness corresponds to a decrease in the ambiguity of the role and an increase in job satisfaction and commitment of employees.

3. THE ORIGINS OF PUBLIC SERVICE MOTIVATION

For many years, researchers and experts of the public sector administration have limited themselves to consider the public service as a “special vocation”. They often speculated on diversity - in referral to a wide range of attributes - among those who responded to the call for this special vocation with respect to other people. This school of thought can be synthesized by the following affirmation: “*Public Service is a concept, an attitude, a sense of duty - yes, even a sense of public morality*” (Staats, 1988: p. 601).

Subsequently, through various studies performed on the public context, the individual level and the type of motivation to public service were identified as the elements that influence individual choices, job performance and organizational effectiveness (Perry & Wise, 1990; Rainey, 1982; Romzek, 1990). At that time two contingent factors were dominant in the debate around the American federal government. On the one hand the lasting distrust toward the public employees, on the other hand the need to regain trust on behalf of the political class. Since the values of public service could have been translated into effective and efficient behaviours, the PSM became an issue of primary interest (Belle & Cantarelli, 2010). In its first sense, the PSM was defined as “*an individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations*” (Perry and Wise, 1990: p. 368). According to Knoke and Wright-Isak (1982), psychological motives are traceable to emotional drives, which are analytically classified into three categories:

- 1) “Rational motives”, that refer to actions based on maximization of individual utility;
- 2) “Norm-based motives”, which refer to actions generated by efforts to comply with regulatory norms;
- 3) “Affective motives”, which refer to those triggers of behavior that are grounded in emotional responses to various social contexts.

Among the “Rational motives”, that induce people to opt for working into the public service, it was mostly considered the opportunity to participate in the “*formulation of public policies in which elaboration constituted an attraction, at the same time exciting and dramatic, with the possibility to strengthen ones image based on the self-consideration*” (Kelman, 1987).

About the “Norm-based motives”, Downs (1967) identified the **commitment towards the public interest** as the most common motivating element for public employees. Downs argued that “*the desire to serve the public interest is essentially altruistic even when the public interest is conceived as an individual’s opinion*”. Buchanan (1975), citing a classic of the United

States - *Democracy and the Public Service* by Mosher (1968) - came to the conclusion that the public service value meant "*unequivocal sense of **civic duty** arising from sovereign power of the State and the roles of its employees as nonelected trustees of portions of this power*". Frederickson (1971) contributed to the definition of the concept of **social justice** which foresees activities aimed at improving the welfare of minorities without economic and political resources. In this regard he defined the obligations of public administrators:

- providing services in a sufficient manner,
- providing services in an economic matter,
- improving social equality.

Therefore Frederickson proposed the inclusion of social justice between the values that guide public administrators to perform their public activities.

About the "Affective motives", Frederickson and Hart (1985) suggested that the essential motivating element for public employees had to be the "patriotism of benevolence", which they defined as "*an extensive love of all people within our political boundaries and the imperative that they must be protected in all of the basic rights granted to them by the enabling documents*". Later, Perry (1996) will define the "patriotism of benevolence" as **compassion** (see Chapter 4).

A further motivating element associated with the public service was the **self-sacrifice**, which was not related to any Knoke and Wright-Isak's psychological motive. The self-sacrifice reflects the desire to perceive the service provided to others as a tangible personal gratification (Perry, 1996). A classic example of appeal to the motivation of self-sacrifice was the request expressed in the sixties by the USA President Kennedy: "*ask not what your Country can do for you, but ask yourself, what you can do for your Country*". Much more concretely, John Macy, at the end of his term of office as Director of the Civil Service for John Kennedy, wrote a book on the availability of employees in the public sector to forgo their financial rewards in place of intangible benefits received while operating on behalf of the public service (Macy 1971).

Returning to the definition of PSM as suggested by Perry and Wise (1990), according to the authors it includes all the three orders of reasons defined by Knoke and Wright-Isak. In fact, when contemplated in the public sector:

- the "Rational motives" refer to the maximization of attitudes of public utility and concern the wish to participate in the formulation of public policies, which reflect an individual **attraction to public making**;
- the "Norm-based motives" refer to the desire of taking care of the common goods and concern the **commitment to public interest**, the **civic duty** and the **social justice**;

- the “Affective motives” refer to the willingness to help others and concern the “patriotism of benevolence”, later called **compassion** by Perry (1996).

Starting from these concepts, Perry and Wise (1990) formulated three assumptions:

1. The higher the individual’s PSM is, the more likely the individual will try to be part of a public administration.
2. In public organizations, the PSM is positively connected to individual performance.
3. Public organizations that attract members with a high level of PSM are probably less dependent on the tangible rewards to provide individual performances.

However, despite the large debate about the PSM, a method to concretely measure it did not exist yet.

4. THE CONSTRUCTION OF THE FIRST PSM QUESTIONNAIRE

As explained in the previous paragraph, from sixties to eighties the Public Administration literature gave a large emphasis to the PSM. However, the empirical research was nearly nonexistent. This discrepancy was partially reduced by Professor James Perry from Indiana University at Bloomington, also editor of the *Public Administration Review*. Perry (1996) performed a study to investigate the predisposition of subjects to respond to motives which derive primarily or uniquely from working for public institutions. In his study, the author explained the theoretical dimensions of PSM, referring to the literature of that time. The PSM construct defined by Perry was theoretically associated with the six dimensions that we have introduced in the Chapter 3 (see the terms in bold):

- 1) *Attraction to Public Making* (APM);
- 2) *Commitment to Public Interest* (CPI);
- 3) *Civic Duty* (CD);
- 4) *Social Justice* (SJ);
- 5) *Self-sacrifice* (SS);
- 6) *Compassion* (COM).

Starting from these six dimensions, Perry proposed the first questionnaire to measure the PSM. The methodology used for the construction of the Perry's questionnaire is explained in the following paragraph. The outcome of Perry's research was presented on 19th July 1993 at *Berkeley Symposium on Public Management Research*, which was patronized by the *American Society for Public Administration Section*. The research was then published in the *Public Administration Research* journal.

4.1 METHODOLOGY AND OUTPUT

At first, Perry (1996) wrote the items for each of the six dimension identified on the basis of the descriptions of motivation to public interest that the previous authors have provided (i.e., Attraction to Public Making, Commitment to Public Interest, Civic Duty, Social Justice, Self-sacrifice, Compassion). Subsequently, he arranged a *focus group* between the students of a *Master in Public Administration* in order to discuss their opinions about the public service. Based on the *focus group*, Perry created 35 sentences.

In order to transpose the theory of motivation to public service in a tool of measure, Perry considered the following points as crucial:

- verifying the construct validity, which is the correspondence between the conceptual and operational definitions of PSM (Schwab, 1980);
- verifying the unidimensionality of the items that compose the questionnaire¹¹ (Anderson & Gerbing, 1988);
- targeting the parsimony: the more concise the questionnaire, the more easily and frequently it could be used.

Regarding the modality of answering the sentences, Perry chose to use the Likert scale (1932), which was considered the most concise and easy-to-use measurement instrument. Thus, the students of the Master mentioned above were asked to rate their degree of agreement/disagreement on a five-point Likert scale where 1 corresponded to “Completely in disagreement” and 5 to “Completely in agreement”. After answering the questionnaire, students were asked to identify the sentences which resulted ambiguous or confusing and the sentences that better described their motivation to pursue a career into the public service. On the basis of their feedback, Perry reviewed some items. Particularly, he added to the items the pronouns “I” and “me” to avoid the risk that respondents gave abstract answers. Moreover, in some cases he added to the items an adverb of intensity (e.g., rarely, much, little) to arouse specific reactions. As a result, Perry obtained a new version of the questionnaire.

The new version of the Perry’s questionnaire was administered to small groups of students of a *Master in Public Administration* and a *Master in Business Administration*, who were selected on the basis of their predisposition to the public service. The items were then modified one more time on the basis of the answers given by these students and of their feedback. The new version of the Perry’s questionnaire was tested through the administration to other small groups of the two mentioned Master. This third administration of the questionnaire provided new reviews of it. The consequent outcome was a questionnaire composed by 40 items and six dimensions, in which the Chronbach alpha was calculated.

The 40-item version of the Perry’s questionnaire was administered to a sample composed by various categories of public employees. The usable answers were 376. Descriptive statistics were calculated for each of the 40 items. Results showed that five items had low variances and were therefore deeply checked. Their *item-total* correlations showed low Pearson values, which ranged

¹¹ The unidimensionality of the items is based on the assumption that all items of a questionnaire are measuring a single latent trait.

between .11 and .26 and were distant from the Pearson values of the other items. Therefore, Perry decided to remove the five items from the questionnaire.

On the remaining 35 items, Perry performed a *Confirmatory Factor Analysis* (CFA - Bollen, 1989). This type of factor analysis substantially differs from the *Exploratory Factor Analysis* (EFA). In the EFA, theoretical assumptions do not exist. In the CFA theoretical assumptions do exist instead. In fact, since the beginning this analysis allows to specify the number of factor that would compose the theoretical model and the specific items belonging to each dimension. According to Joreskog (1993), the CFA is typically used in two distinct ways. The first strictly aims at confirming a proposed model. The second, which depends on the results of the first, is model generating: if the initial model is rejected, then the model may be modified and then re-tested using the same data.

In the case under consideration, Perry verified the model of six dimensions and 35 items (i.e., 40 starting item minus the five items eliminated subsequently) to decide if accepting or rejecting it. On the basis of the indications proposed by Bollen (1989), the resulting model showed the following features:

- it was composed by six dimensions, which corresponded to the theoretical model of the PSM initially proposed by Perry, and each dimension was correlated whit all the others;
- it was composed by 35 reflective indicators (i.e., items) and each item loaded significantly only on a single dimension;
- the *Chi-square statistic* for the model was 1558 with 544 degrees of freedom ($p=.001$), which suggested a poor model fit;
- the *Goodness of fit statistic index* (GFI) was .785, and the *Adjusted goodness of fit statistic index* (AGFI) was .751, both below the minimum cutoff of .90 typically used for estimating an acceptable goodness of fit¹². Collectively, these indices represented further indications of poor model fit.

The denial of the theoretical model pushed Perry to identify an alternative model. To define it, the author used two criteria:

¹² The goodness of fit of a statistical model describes how well the model fits a set of observations. Measures of goodness of fit indicate the discrepancy between observed values and the values expected on the basis of the model in question. Such measures can be used in statistical hypothesis testing. If an initial model is not confirmed, an alternative model should be evaluated. Generally, to assess the goodness of fit of a model various measures are considered, such as χ^2 compared with the number of degrees of freedom, the *Standardized Root Mean Square Residual* (SRMR) and *Root Mean Square Error of Approximation* (RMSEA), the *Goodness of Fit Index* (GFI), the *Non Normed Fit Index* (NNFI) and the *Comparative Fit Index* (CFI).

1. removing, step by step, the items which resulted associated with more than one dimension in the attempt to rise the unidimensionality of the factors, which was indeed one of the initial goals (see above);
2. linking together two or more dimensions when the correlation between them was strong (i.e., $>.90$) and therefore the dimensions lacked discriminant validity.

The application of the former criterion implied the elimination of 11 items. However, even after the elimination of the 11 items, the correlation between *Civic Duty* and *Commitment to Public Interest* was .93 and the correlation between *Social Justice* and *Commitment to Public Interest* was .96. This resulted in the linkage of *Commitment to Public Interest*, *Civic Duty* and, *Social Justice* dimensions to form a single dimension.

The *maximum likelihood estimates* method performed on the remaining 24 items showed factor loadings¹³ ranging from .39 to .78. The R^2 values of these items ranged from .15 and .61, which suggested that the reliabilities were variable. Finally, the goodness of fit of the resulted model was tested. The GFI and AGFI indices were respectively .88 and .86, which indicated a good fit for the four-dimension model.

Collectively, the effort of Perry to develop a questionnaire for measuring the PSM yielded a multidimensional construct composed by four factors and 24 items, as described in Table 1.

¹³ Factor loadings are considered as indicators of the validity of the reflective indicators. In other words, the factor loading values indicate how well the items measure the relative latent dimensions.

Table 1: Final version of the Perry’s questionnaire for the measurement of PSM

DIMENSION	NUMBER OF ITEMS
Attraction to Public Making (APM)	3
Commitment to Public Interest (CPI)	5
Compassion (COM)	8
Self-sacrifice (SS)	8

4.2 CONSIDERATIONS

The Perry (1996) study highlighted that PSM construct was less complex than what previous literature suggested. In fact, the analysis performed on the subjects’ answers revealed that the *Civic Duty*, *Social Justice* and *Commitment to Public Interest* dimensions did not discriminate each other. These three dimensions refer to a global interest toward the common good, thus they all can be assimilated to the “Norm-based motives” (Knoke & Wright-Isak, 1982 – see Chapter 3). For many years this kind of motives has been in the foreground in the public sector literature under various forms (i.e., public interest, civic duty, social justice). Furthermore, they have been the object of an intellectual debate in many matters, such as political science¹⁴, sociology¹⁵ and economic policy¹⁶. The common theme of these matters is that a form of interest toward the common good is a prerequisite for working in the public service.

Except for the *Self-sacrifice* dimension that Perry maintained in the final model, the other three dimensions corresponded to the “Rational”, “Norm-based” and “Affective” motives (Knoke & Wright-Isak, 1982), as shown in Table 2. Since these dimensions were part of the theoretical model of the PSM construct (Perry & Wise, 1990), they are also acceptable as empirical result.

¹⁴ See Wilson, J.Q. (1993). *The Moral Sense*. New York: Free Press; Putnam, R.D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton University Press.

¹⁵ See Etzioni, A. (1988). *The Moral Dimension: Toward a new Economist*. New York: Free Press.

¹⁶ See Hirschman, A.O. (1982). *Shifting Involvements: Private Interest and Public Action*. Princeton University Press.

Table 2: Equivalence between the Perry (1996) dimensions and the Knoke e Wright-Isak (1982) motives

MOTIVES (Knoke & Wright-Isak, 1982)	GENERAL DESCRIPTION (Knoke & Wright-Isak, 1982)	DESCRIPTION REFERRED TO THE PUBLIC SECTOR (Bellè & Cantarelli, 2010)	DIMENSION IN THE PSM QUESTIONNAIRE (Perry, 1996)
Rational motives	Emotional drives that are satisfied through actions grounded in individual utility maximization	Will to maximize the personal connection with public policies	<i>Attraction to Public Making</i>
Norm-based motives	Emotional drives which refer to actions generated by efforts to conform to norms	Desire to deal with common goods	<i>Commitment to Public Interest</i>
Affective motives	Emotional drives which refers to those trigger of behaviour that are grounded in emotional responses to various social context	Willingness to help others	<i>Compassion</i>

Recently, two non-American researchers (i.e., Kim and Vandenabeele) returned on the pertinence of these associations and, consequently, on the correspondence between the theoretical model of the PSM construct defined by Perry & Wise (1990) and the Perry’s empirical result. The authors questioned the correspondence between the *Compassion* dimension and the “Affective motives” of Knoke & Wright-Isak. According to these authors, it is controversial that (a) the affective bond is the emotional base to help others and (b) public employees are motivated to help others with whom there is no affective bond. The answer would be that probably the public employees identify themselves with others. Thus, the sense of unity and the empathy that a public employee could feel toward others may trigger the wish to help others (Kim & Vandenabeele, 2010).

Kim and Vandenabeele (2010) also treated the correspondence between the *Commitment to Public Interest* dimension and the “Norm-based motives”. These motives refer to actions generated by efforts to conform to public principles (i.e., values and norms); therefore people feel satisfaction and self-actualization when they can contribute to actualize these principles through serving the public interest and doing something useful for the community (Kim & Vandenabeele, 2010).

As for “Rational motives”, some authors also included the self-interest reasons (Perry & Wise, 1990; Wright, 2007; Wright & Pandey, 2008). These reasons concern an individual’s intention to foster his/her personal interests and/or the wish to maximize the individual utility (Wise & Tschirhart, 2000). Therefore, a subject could be aimed at participating in the formulation of public policies for these reasons rather than for an intrinsic motivation to pursuit the public interest. However, interpreting the “Rational motives” as self-interest reasons appears incoherent because the motivation to public service is essentially a pro-social one. As a consequence, the self-interest

reasons cannot be - by definition - public service motives (Wise & Tschirhart, 2000). In this way, it is more consistent to conceive the rational component of PSM (i.e., “Rational motives”) as an instrumental component. This means that the participation in the formulation of public policies is motivated by the wish to understand how the Public Administration actions and resources can provide good public services.

According to Kim and Vandenabeele (2010), the “Rational motives” are grounded in altruistic reasons. In this way, the instrumental component of PSM refers to the subject’s perception that a certain behaviour is useful to help others. Altruistic reasons may imply the following behaviours:

- the collaboration to provide public services;
- the participation in public policies and community activities;
- the participation in social development activities.

Kim and Vandenabeele (2010) also considered the PSM construct as first-order reflective and second-order formative. According to these authors, this means that the construct is composed by different dimensions, which are merged altogether, forming the construct itself, which makes public service better. For instance, beer, whisky, wine and gin are different beverages, but altogether contribute to alcohol consumption, which makes someone drunk.

In brief, although it is not yet clear how the PSM is rooted in affective, norm-based and rational motives, Coursey and Pandey (2007) and Andersen and Pedersen (2012) consider *Compassion*, *Commitment to public interest* and *Attraction to public making* dimensions as different in type, but merged altogether forming the PSM construct, which indicates a personal predisposition to provide public service with the aim to help others and contribute to common good.

5. EVOLUTION AND GENERALIZATION OF THE PSM

So far, we have made reference to civic issues, historical aspects, authors and studies that referred mainly to a single context: the United States. Indeed, the PSM construct originated and developed in that country. In this chapter we will describe the evolution and generalization of the construct through studies performed in other countries.

By generalization, we mean the possibility to extend the construct to other countries according to their specific *ethos* of public service with the aim of answering the question “Is the PSM universal?”. In brief, generalization implies investigating the PSM essence –in an Aristotelian sense¹⁷ – and isolating it from the cultural features that can change among countries. In this way, it is possible to deny the statement of Rainey (1982) according to which the PSM is a wide multifaceted concept that can be perceived in several ways and is difficult to measure and define in itself.

By evolution, we mean the issues and solutions which have been proposed in literature concerning the PSM definition, dimensions and measurement.

Although the PSM was generally acknowledged in the public sector, its definition originally formulated by Perry and Wise (see Chapter 3) was not universally accepted. In fact, their definition implies that people are encouraged to provide public service by certain features distinguishing public institutions. However, over time the PSM has been conceptualized ever more as a matter of service (i.e., offering a public service) rather than a matter of sector (i.e., working in public institutions) (Andersen, Pallesen & Pedersen, 2009). For instance, Brewer and Selden (1998: p. 417) defined the PSM as a “*motivational force that induces individuals to perform meaningful public service*”; Rainey and Steinbauer (1999: p. 23) defined the PSM as a “*general altruistic motivation to serve the interests of a community of people, a state, a nation or mankind*”; Perry and Hondeghem (2008) declared that “*although the definitions of PSM vary among authors, there is a common focus on motives and actions that are intended to do good for others and shape the well-being of society*”.

¹⁷ According to Aristotle, the characteristic of universality must correspond to the essence of the entities we consider and not to some of their contingent features that could be or not. For example, in all the triangles the sum of the internal angles is 180°, because this characteristic is in the triangle essence. If the geometric shape had not this feature, it simply would not be a triangle. Therefore, since the sum of the internal angles (180°) is a universal assumption that corresponds to the triangle essence, we can apply it to each triangle. In brief, every different triangle will have this universal characteristic: the sum of the internal angles is equivalent to 180°.

In scientific research, the operational definition of a concept is crucial in order to define a solid framework that can be used for any further speculation. This is the reason why a branch of the PSM literature has been – and still is – focused on the operational definition of PSM itself. A European researcher, Wouter Vandenberghe¹⁸ (2007), trying to assimilate the contribution of different authors, formulated a definition of PSM that:

- 1) goes beyond the personal and organizational interests: this does not mean that the personal and organizational interests cannot coincide with the public interest, but when they are opposed the public interest prevails;
- 2) acknowledge the contribution of Rainey and Steinbauer, according to which the PSM refers to political entities such as community, state or nation. This implies that the PSM is situated within a political system;
- 3) applies the motivational psychology in defining the last part of the definition. According to Heckhausen (1991), motivation is a general term that covers all processes in which the core element is the realization of targeted behaviours. Motivation only exists in the interaction of individual values and actual situations that enable a subject to put his/her values into practice. Therefore, motivation is an intermediate variable between targeted behaviours and actual behaviours.

Integrating these elements, the PSM is today mainly acknowledged as: *“the belief, values and attitudes that go beyond self-interest and organizational interest, that concern the interest of a larger political entity and that motivate individuals to act accordingly whenever appropriate”* (Vandenberghe, 2007: p. 549). According to the author, this definition is interactive in nature and with a reference to a political body. Compared with previous definitions, it is also able to overcome problems in terminology and content across countries, widely enough to include other types of high value behavioural determinants and to consider interests other than personal interest.

Nevertheless, some authors (e.g., Chanlat, 2003; Pratchett & Wingfield, 1996) do not use the term PSM when studying public service motivated behaviour. According to other authors, the content of the PSM itself differs on the basis of nation and region (e.g., Norris 2003).

¹⁸ Professor of *Human Resources Management* at *Utrecht University School of Governance* (The Netherlands). He is leading two research projects on PSM supported by the *Netherlands Organization for Scientific Research*, which is the most important scientific research backer in The Netherlands. The first project is called *“Refining Public Service Motivation Theory: The Mediating Roles of Person-Job and Person-Organization Fits in Individual Performance”*; the second one is called *“Taking the measure of public service motivation: validating a measurement instrument from an international and cross-sectorial perspective”*.

Disagreement between authors exists not only about the PSM definition, but also about the PSM universality and about its dimensions. Vandenabeele and Van de Walle (2007) raised doubts over the PSM construct universality. To corroborate their hypothesis they demonstrated that the scores of the PSM variables are usually high in Southern Europe and American countries, whereas are low in Central and Eastern Europe. Few years before, Vandenabeele and Hondeghem (2004) showed that the PSM model defined by Perry (1996) could not be applied to the Belgium public context. These authors also questioned the pertinence of the dimensions defined by Perry (1996) to all public sectors worldwide.

Kim (2009) applied the Perry's questionnaire – composed by four dimensions and 24 *items* – in Korea and discovered that a good measure of PSM was not achievable in this country through that questionnaire. As a consequence, the author modified the questionnaire maintaining the four dimensions but decreasing the items to 14. This modified version resulted to better fit the Korean public sector. Nevertheless, the best fit resulted removing from the PSM model an entire dimension, which was *Attraction to public making*. To explain his findings, Kim proposed some hypothesis:

- 1) the *Attraction to public making* dimension could not be relevant for the Korean public sector;
- 2) the *Attraction to public making* dimension could not be relevant for the PSM construct, independently from being a Korean public employee or not;
- 3) the items for measuring the *Attraction to public making* dimension could not be sufficiently accurate;
- 4) the items for measuring the *Attraction to public making* dimension that are formulated negatively could mix up the respondents and, therefore, produce unreliable answers.

In a further study, Kim (2011) focused on the attempt to retrieve the *Attraction to public making* dimension. The author reformulated as positive all items originally formulated negatively. Through these modifications, he refined the PSM questionnaire for the Korean public sector, which was eventually composed by the four dimensions defined by Perry (1996).

Even if Kim returned to a four-dimensions PSM model, other authors defined different versions. For instance, Coursey and Pandey (2007) tested the validity of a three-dimension PSM model, which was obtained removing the *Self-sacrifice* dimension from the model defined by Perry (1996). By applying a questionnaire to a group of public managers from the United States, the authors obtained a good fit of the three-dimension model.

In addition to the traditional PSM dimensions defined by Perry (1996), Vandenabeele, Scheepers and Hondeghem (2006) proposed to add new dimensions, which were *Equality*, *Service*

Delivery, Technical Competence, and Bureaucracy. Some years before, Brewer and Selden (1998) proposed to add a dimension named *Public Service Ethics*. The authors noticed that both researchers and officers considered the ethic as relevant into the Public Administration. Thus, it was reasonable to add an ethical dimension to the PSM construct. Subsequently, Choi (2009) tested the relation between the ethics (i.e., Impartiality, democratic principles of justice and fairness – Choi, 2004) and the four PSM dimensions defined by Perry (1996). The author found a significant relation only between ethics and *Self-sacrifice* dimension.

Vandenabeele (2008a) included in the PSM construct two dimensions, named *Customer Orientation* and *Democratic Governance*. The former reveals the motivation to help the specific users of public services. The latter refers to public values that are associated with the actions related to the administration of the public good, such as equality and accountability. Andersen and Pedersen (2012) argued that *Democratic Governance* can be included in the theoretical model of PSM, but it cannot be added to the others dimensions. Indeed, according to the author, the *Democratic Governance* indicates the way in which a person supposes that what should be governed is the public interest rather than the inclination of a person to serve the common good and to act toward public utility.

Andersen and Pedersen (2012) also claim that the *Attraction to Public Making* dimension would not measure adequately the motivation to participate in the formulation of public policies. On the contrary, according to the authors, it taps an individual's dissatisfaction toward politicians. This is still a controversial aspect among the scientific debate on PSM. Indeed, some authors believe that the *Attraction to Public Making* items should be developed in a manner that they can result better reflective indicators of Knoke and Wright-Isak's "Rational motives" (Kim & Vandenabeele, 2010). On the other hand, an international group composed by fourteen researchers – including the same Kim and Vandenabeele – presented an article¹⁹ at the 2013 annual conference of *International Research Society for Public Management* (IRSPM) where they proposed to reformulate the *Attraction to Public Making* dimension as *Attraction to Public Participation*. According to the authors, the new dimension should be able to measure a personal inclination of working in the public sector and participating in public activities and programs in the interest of the community and of the social development.

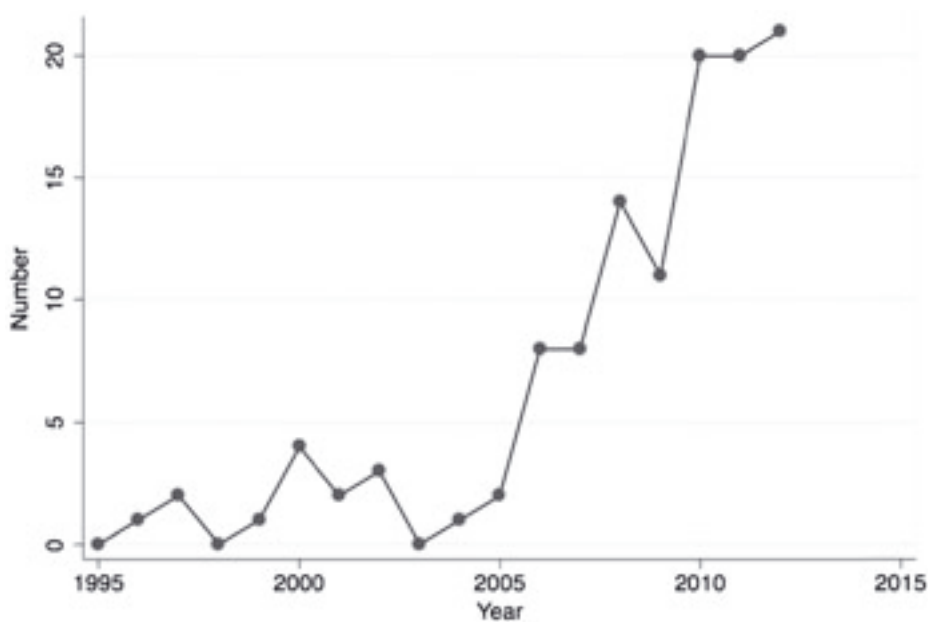
¹⁹ The reference is to Kim et. al, (2010). *Measuring Public Service Motivation: Developing an Instrument for Internal Use*. The article was initially prepared for the annual conference of the *European Group for Public Administration*, which was arranged from 8th to 10th of September 2010 in Toulouse (France). Subsequently, it was proposed again at the 2013 *International Research Society for Public Management*.

To sum up, from a theoretical point of view a substantial step forward in defining PSM has been done in literature, but this does not solve the issue of the universal acknowledgment of PSM. Indeed, both the operational definition and the dimensions that compose the PSM construct should be unequivocally accepted by every researcher, independently of the specific culture in which the PSM measures are applied. Moreover, referring to dimensions universally accepted would be an advantage in advancing the PSM research. However, this is not yet possible. In brief, the debate about the dimensions to include in the PSM measurements must still be carried on (Kim & Vandenabeele, 2010).

6. FUNDAMENTAL PRINCIPLES FOR THE CONSTRUCTION OF THE *ITALIAN PSM QUESTIONNAIRE*

Over the years, the interest in PSM has grown remarkably in literature. As a matter of fact, in Figure 1 is shown the increase in the number of peer-reviewed articles. The data was extracted searching of *Web of Science* and *Scopus* and considering as criterion of search the exact terms “public service motivation,” “Public Service Motivation” and “PSM” appeared in titles and keywords (Bozeman & Su, 2014).

Figure 1: Number of peer-reviewed articles on PSM from 1995 to 2013



The literature devoted to human resources and public management has focused on a number of practical implications of PSM that are resulted relevant for the public administrations. It could be stated that PSM is strategic for the public organizations. Indeed, PSM has demonstrated to be correlated with:

- individual performance (Bright, 2007; Leisink & Steijn, 2009; Naff & Crumm, 1999; Perry & Wise, 1990; Ritz, 2009; Vandenabeele, 2009);
- organizational performance (Brewer & Selden, 2000);
- job satisfaction (Brewer & Selden, 1998; Liu, Tang, & Zhu, 2008; Naff & Crum, 1999; Steijn, 2008; Taylor, 2007; Vandenabeele, 2009; Xiaohua, 2008);
- organizational commitment (Brewer & Selden, 1998; Crewson, 1997; Moynihan & Pandey, 2007; Taylor, 2007; Vandenabeele, 2009; Xiahua, 2008);

- values, ethics and pro-social behaviours (Choi, 2004; Kim, 2005; Vandenberghe, Hondeghem, Maesschalck, & Depré, 2004);
- employees loyalty (Naff & Crum 1999; Steijn 2008);
- acceptance of organizational change (Moynihan & Pandey, 2007; Naff & Crum, 1999; Paarlberg & Lavigna, 2010; Wright, Christensen & Isett, 2013)
- *whistleblowing* (Brewer & Selden, 1998; Caillier, 2013, Perry & Wise, 1990; Rainey, 1982;).

For the aforementioned reasons, a tool for measuring PSM in Italy is particularly important.

The PSM is conceived as a second-order construct, which is composed by first-order dimensions/factors (Kim, 2011). The dimensions that are mostly cited in the international scientific articles are:

- *Attraction to Public Service* (APS): disposition to serve the public, work for the common good, and participate in public policy processes (Kim, 2012).
- *Attraction to Public Making* (APM): wish to participate in the formulation of public policy (Sunaryo & Suyono, 2013). However, items of this dimension may tap individual distrust in politicians rather than the interest towards the creation of public policy (Coursey & Pandey, 2007). For this reason some authors, after having modified some items, renamed the dimension as APS.
- *Commitment to Public Interest* (CPI): desire to fulfil a societal obligation or standard (Kim & Vandenberghe, 2010).
- *Commitment to Public Values* (CPV): personal disposition to pursue the public values (Kim & Vandenberghe, 2010). This dimension refers mostly to public values associated to the operations of the public administrations, like equality and accountability.
- *Compassion* (COM): emotional attachment towards other members of a social category. It entails love and concern for others and a desire that others be protected (Kim & Vandenberghe, 2010).
- *Self-Sacrifice* (SS): willingness to substitute service to others for tangible personal rewards (Perry, 1996).
- *Social Justice* (SJ): orientation toward activities intended to enhance the well-being of minorities who lack political and economic resources (Perry, 1996).
- *Civic Duty* (CD): acknowledgement of the sovereign power of State and the role of public employees like unelected trustees of a portion of this power (Perry, 1996).

Each dimension has several reflective indicators (i.e., items) in which the subject must express its own level of agreement or disagreement through a five-points Likert scale²⁰, where low points (i.e., 1 and 2) indicate levels of disagreement, and high points (i.e., 4 and 5) indicate levels of agreement.

However, the PSM construct is very complex to measure. As highlighted by the literature, the terms of research for this construct need to be adapted and re-evaluated continuously. Moreover, the different cultural contexts have induced researchers to use different methods of measurement, which are hard to compare. As a consequence, different studies from different countries have used a different number of items and measured different dimensions of PSM, as shown in Table 3.

Table 3: Main international researches on Public Service Motivation

AUTHOR(S)	COUNTRY; SAMPLE	ITEMS	DIMENSIONS
Perry (1996)	USA; Student of MPA and MBA	40	APM, CPI, SJ, CD, COM, SS
Lee (2005)	Korea; Public and private employees	24	APM, CPI, COM, SS
Scott and Pandey (2005)	USA; Managers in state health and human service agencies	11	APM, CPI, COM
Camilleri (2006)	Malta; Public officials	24	APM, CPI, COM, SS
Castaing (2006)	France; Civil service employees	4	CPI
DeHart-Davis, Marlowe and Pandey (2006)	USA; Managers in state health and human service agencies	10	APM, CPI, COM
Taylor (2007)	Australia; Public employees	24	APM, CPI, COM, SS
Moynihan and Pandey (2007)	USA; Managers in state health and human service agencies	11	APM, CPI, COM
Bright (2008)	USA; Public employees	24	APM, CPI, COM, SS
Coursey, Perry, Brudney, & Littlepage (2008)	USA; National awardwinning volunteers	12	CPI, COM, SS
Vandenabeele (2008a)	Belgium; Civil servants	47	APM, CPI, COM, SS, Democratic Governance, Customer Orientation
Vandenabeele (2008b)	Belgium; Graduate students Dutch-speaking	13	APM, COM, (CPI+SS+CD)
Liu, Tang, and Zhu (2008)	China; Part-time MPA students (full-time public	24	APM, CPI, COM, SS
Kim (2009)	Korea; Public employees	24	APM, CPI, COM, SS
Giaque, Ritz, Varone, Anderfuhren-Biget & Waldner (2009)	Switzerland; Civil servants in municipalities of the German and French speaking areas	12	APM, (CPI+CD), COM, SS, Commitment to the Constitutional Principles, Commitment to the Administrative Principles
Leisink and Steijn (2009)	The Netherlands; Public sector employees	11	APM, CPI
Giaque & Anderfuhren-Biget (2010)	Switzerland; civil servants at municipal level in the French-speaking part	23	APM, CPI, COM, SS
Kim, Vandenabeele, Wright, Andersen, Cerase, Christensen, Desmarais, Koumenta, Leisink, Liu, Palidaukaite, Holm Pedersen, Perry, Ritz, Taylor & De Vivo (2013)	Australia, Belgium, China, Denmark, France, Italy, Korea, Lithuania, The Netherlands, Switzerland, the United Kingdom, and the United States; Civil servants in local governments	16	APS, CPV, COM, SS

²⁰ Sometimes, psychological measuring tools use a seven-point scale. Other modalities of response are the Guttman scale, the Stapel scale, the semantic differential and the classification along a *continuum*.

6.1 MEASUREMENT OF PSM IN ITALY

As far as the Italian context is concerned, there is still a lack of studies that measure PSM. For our knowledge, the unique national study appeared in 2006. It was presented at the *European Group of Public Administration* conference, which was carried out in Milan: Cerase (2006) examined a group of employees of the Revenue Agency, mostly officers and managers. However, this study did not aim at testing and validating a method for measuring PSM in Italy. Moreover, the author arbitrarily modified some items without operating a psychometric validation.

Kim et al. (2013) created a transcultural tool of measurement of PSM. However the normative sample was poorly represented by the Italian public employees. In fact, the authors established that the adequate number of respondents in every country should be 250 and the minimum number of respondents to be considered sufficient should be 200. However, they collected only 162 respondents²¹ in Italy. The same authors reported this limitation, writing that “*in most countries, we used approximately 250 responses but only 162 from Italy*”.

In conclusion, up to now we do not have a tool for measuring PSM in Italy that is based on a largely sufficient sample and adequate psychometric validation. For this reason, the aim of this research was the construction of a PSM questionnaire for the Italian public context, taking the name of *Italian PSM Questionnaire*.

²¹ Corresponding to 5.7% of the total sample (i.e., 2831 subjects)

7. PSM AND SOCIAL DESIRABILITY

Social desirability is defined as the degree to which individuals describe themselves in favorable, socially desirable terms generally in order to achieve the approval of others (Crowne & Marlowe, 1964). Social desirability can affect research findings in three ways: (a) producing spurious results; (b) hiding real results; and (c) moderating relationships (Ganster, Hennessey, and Luthans, 1983).

An assessment of social desirability when measuring self-reported motivation would be beneficial. In fact, self-reported motivation is not directly observable and therefore its measure can be affected by an individual's tendency to respond consistently in what is seen as a socially acceptable and desirable way.

Paulhus (1984) reported two types of social desirability: *impression management* and *self-deception*. Impression management refers to an attempt by respondents to distort their self-reported actions in a positive manner to maintain a favorable image, and it is closely related to faking and dissimulation. Therefore, impression management is associated with the desire to present oneself in a socially conventional way (Paulhus 1991). Self-deception is the tendency to describe oneself in an inflated yet honestly held manner and to see oneself in a positive light. Self-deception is therefore a less conscious reaction to look good to oneself. It is assumed that the motivation behind a self-deceivers' positive bias is the protection of self-beliefs, including maintenance of ego-resiliency, self-esteem, and self-confidence (Paulhus 1986). Impression management does not probably affect self-reported motivation. Indeed, the questionnaires are usually anonymous and raw data are aggregated before performing analyses. As a consequence, subjects do not present themselves through the answers given to a questionnaire, therefore faking and dissimulations appear unlikely. On the other hand, self-deception could affect in a certain way the answers of a questionnaire since it refers more to an internal desire to say good things about themselves, independently from the fact that someone reads the answers or not.

For the best of our knowledge, the PSM literature has taken into account the social desirability very little. In general, four kinds of approach can be reported:

- authors who took few measures of control of social desirability, such as presenting the survey to subjects in a subtle way (e.g., not mentioning the term motivation);
- authors who took no measures of control of social desirability and advised interpreting the results of their studies cautiously;

- authors who took no measures of control of social desirability and explained that social desirability did not matter in their studies;
- authors who did not take into account social desirability at all.

In his first attempt to measure the PSM, Perry (1996) adopted some measures to avoid the influence of the social desirability. As a matter of fact he added to the title "Opinion Survey" some indications which specified that the questionnaire was aimed to tapping opinions about different areas of investigation. Actually, the questionnaire did not have checks for the social desirability. Even if Perry considered this check as beneficial, he opted not to use it. In fact, he judged the social desirability tests too long and unreliable, such as the Crowne and Marlowe scale (1964)²².

Wright (2007) discussed the high levels of PSM that he found in his sample and recognized that his finding could be suspect because of the potential for social desirability bias.

In his paper aimed at investigating behavioural implications of PSM of public, nonprofit, and private workers, such as involvement in charitable activities, Houston (2006) stated that the social desirability “is not problematic because there is no reason to think that public or nonprofit workers would be more biased in reporting their charitable activities than those in the private sector are”.

Beside the reasons for not assessing the social desirability when measuring PSM, first and foremost, it is necessary to wonder which is the goal of each PSM evaluation. If the goal is to assess PSM differences between public and private employees, a social desirability assessment could be little relevant. If, in a more applied context, the goal is making decisions about employment, promotion, and education of public employees, social desirability could play a role. However some author defined the social desirability as irrelevant in organizational context. Spector (1987) stated that social desirability is not a source of bias in the measurement of affect and perceptions in organizations. In a review about the confounding effects of social desirability in organizational behaviour research, Moorman and Podsakoff (1992) found that controlling for social desirability had little effect on the relationships of interest in organizational settings. Furthermore, Ones, Viswesvaran, and Reiss (1996) investigated the role of social desirability in personality testing for personnel selection and defined the evaluation of social desirability as a “red herring”. In their

²² The Marlowe-Crowne Social Desirability Scale is a standardised and valid measure of an individual’s inclination to answer the items of a questionnaire in a socially desirable manner. The items of the Marlowe-Crowne Social Desirability Scale present both (a) socially and culturally desirable behaviours – but unlikely and uncommon – and (b) socially unacceptable and undesirable behaviours – but very common.

review they found that social desirability scales do not predict task performance, counterproductive behaviors, training performance and job performance. The authors concluded that “social desirability does not play a role in the prediction of on-the-job behaviours, including job performance”.

Despite the reasons explained above, a very recent article of Kim and Kim (March 2015) warns that respondents tend to report an inflated view of their attitudes and orientations during surveys on PSM. The authors examined the relationship between socio-demographic factors and social desirability bias in Korea. Their results showed evidence of social desirability responding bias. The pattern of bias varies across socio-demographic subgroups. In particular, those who show more bias are the respondents in their forties or fifties, conservatives, Protestants, and subjects without a religious affiliation. Moreover, the authors declare that research that does not recognize and compensate for this bias may produce unwarranted theoretical or practical conclusions. Although this last assertion has to face more than twenty-five years of PSM research and results, we acknowledge that social desirability should be taken more into consideration when measuring PSM. Unfortunately, at the time of data collection related to the present research, the Kim and Kim’s alert did not yet exist. Indeed, in our study we applied the most reasonable kind of controls over social desirability, which are those explained in the point 1. above.

PART 2 – RESEARCH SECTION

In the first part of this work, we described the main studies about the *Public Service Motivation* (PSM), which were published in the international scientific literature over the last twenty-five years. In general, we detected that this construct was not univocally measured. In fact, PSM was measured using different questionnaires that were developed by various authors. This variety of questionnaires is mainly due to the cultural differences between countries in which the PSM researches were performed. PSM research refers to public employment and, as a consequence, each country is affected by its own specific culture. Therefore, the study of motivations of the public employees in a specific country requires specific measuring tools that perfectly fit for the specific context. Sometimes, this implies to modify some items of a pre-existing questionnaire, especially in cases in which a translation is necessary from one language to another. In other cases, meaningless or culturally unappropriated items have to be eliminated. In another case, new items need to be added.

Disregarding the reasons that induce researchers to make alterations, a measuring tool have to be submitted to a scientific validation, even if few items were modified, eliminated or added²³. Many versions of questionnaires for measuring PSM were validated, becoming applicable tools in their specific cultural context. However, any version of these questionnaires has been validated for the Italian public context. Therefore, the aim of this research was to construct a PSM questionnaire for the Italian public context.

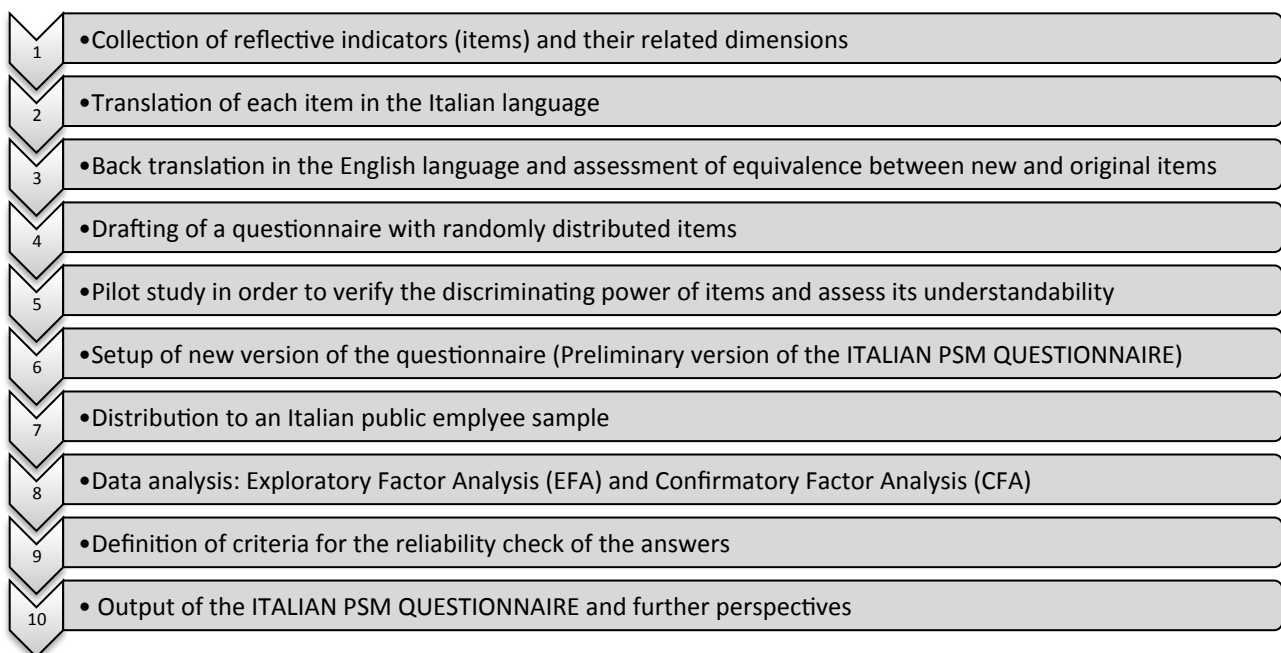
²³ In Public Administrations we assisted in the improper use of pre-existing questionnaires, adding or removing some items without using any form of scientific validation.

8. CONSTRUCTION OF THE QUESTIONNAIRE

In order to create and validate the *Italian PSM Questionnaire*, we designed a ten-step plan (Figure 2). The aim was to obtain a questionnaire of fast and easy using. Theoretically, it should be composed from three to four dimensions, everyone represented by a number of items ranging from four to six, composing the questionnaire with approximately twenty-twenty five items.

In the following paragraphs, the various steps used to construct the questionnaire will be explained in detail.

Figure 2: The ten-step plan designed to create the Italian PSM Questionnaire



8.1 COLLECTIONS OF ITEMS FROM LITERATURE

Using a cumulative approach, we collected the items from the most relevant PSM studies in the international literature, creating a list as follows:

- forty items originally proposed by Perry (1996) for measuring six dimensions²⁴ of PSM (i.e., *Attraction to Public Making, Commitment to Public Interest, Social Justice, Civic Duty, Compassion, and Self-Sacrifice*);

²⁴ Although Perry (1996) has proposed a questionnaire composed by four dimensions explained by twenty-four items, (see Paragraph 4.1) - basically eliminating sixteen items from his first proposal - we chose to collect the highest number of items from the papers that we have selected.

- thirteen items of the three-dimension questionnaire (i.e., *Attraction to Public Making, Compassion, and Commitment to Public Interest + Self-Sacrifice + Civic Duty*)²⁵ proposed by Vandenabeele (2008b);
- twenty-three items used by Giauque and Anderfuhren-Biget (2010) for measuring four dimensions (i.e., *Attraction to Public Making, Commitment to Public Interest, Compassion, and Self-Sacrifice*);
- twelve items proposed by Kim (2011) for measuring four dimensions (i.e., *Attraction to Public Making, Commitment to Public Interest, Compassion, and Self-Sacrifice*);
- sixteen items used by Kim et al. (2013) for measuring four dimensions (i.e., *Attraction to Public Service, Commitment to Public Values, Compassion, and Self-Sacrifice*).

During the collection of the items, we noted that some of them were semantically and grammatically similar to each other. This similarity is due to successive alterations in items made by authors in respect to prior versions of PSM questionnaires, usually trying to clarify the meaning of the items. In some cases, we have included in the list the items with better grammatical and syntactic form. In other cases, we used a more conservative criterion of selection: maintaining similar items rather than eliminating some of them. This criterion allows the subsequent pilot study (see Paragraph 8.5) and factor analyses (see Paragraphs 8.9, 8.11, and 8.12) selecting significant items rather than eliminating by a random criteria. Consequently, when the items were similar in their meaning, but written in a different way (e.g., *I believe in putting civic duty before self* (Perry, 1996); *I consider public service my civic duty* (Perry, 1996; Kim, 2011), we decided to maintain both of them. The same criterion was used in cases of pairs of items that resulted opposite to each other (e.g., *I am rarely moved by the plight of the underprivileged* (Perry, 1996); *I feel sympathetic to the plight of the underprivileged* (Kim et al., 2013). In the example above, the meaning of the first sentence is the opposite of the second sentence. Also in these types of situations, we have kept both of the sentences in the list.

Overall, the outcome of this first work was a list of 81 items, everyone being associated to a specific dimension of PSM (Table 4).

²⁵ The author of this study has linked the three dimensions (i.e., *Commitment to Public Interest, Self-Sacrifice and Civic Duty*) in a single dimension.

Table 4 : List of the eighty-one items collected from the prevalent literature on PSM

DIMENSION	ITEM
(APM)	Ethical behavior of public officials is as important as competence
(APM)	I don't care much for politicians
(APM)	I respect public officials who can turn a good idea in to law
(APM)	Politics is a dirty word
(APM)	The give and take of public policy making doesn't appeal to me
(APM)	I am interested in making public programs that are beneficial for my country or the community I belong to
(APM)	Seeing people get benefits from the public program I have been deeply involved in brings me a great deal of satisfaction
(APM)	Sharing my views on public policies with others is attractive to me
(APM)	I am very interested in politics
(APM)	I am very interested in what is happening in my country
(APS)	I am satisfied when seeing people get benefits from the public programs I was involved in
(APS)	I like to initiate actions to help out my community
(APS)	I think the governmental activities contribute to our welfare
(APS)	I admire people who initiate or are involved in activities to aid my community
(APS)	It is important for me to contribute to the common good
(APS)	It is important to contribute to activities that tackle social problems
(APS)	Meaningful public service is very important to me
(APS)	I like to discuss political subjects with others
(APS)	It is important that public service provide useful goods
(APS)	It is important to unselfishly contribute to the common good
(CD)	I am willing to go great lengths to fulfill my obligations to my country
(CD)	I believe everyone has a moral commitment to civic affairs no matter how busy they are
(CD)	I have an obligation to look after those less well off
(CD)	It is my responsibility to help solve problems arising from interdependencies among people
(CD)	Public service is one of the highest forms of citizenship
(CD)	To me, the phrase "duty, honor, and country" stirs deeply felt emotions
(CD)	When public officials take an oath of office, I believe they accept obligations not expected of other citizens
(COM)	I am rarely moved by the plight of the underprivileged
(COM)	I seldom think about the welfare of the people whom I don't know personally
(COM)	Most social programs are too vital to do without
(COM)	There are few public programs that I wholeheartedly support
(COM)	To me, patriotism includes seeing to the welfare of others
(COM)	It is difficult for me to contain my feelings when I see people in distress
(COM)	I am often reminded by daily events how dependent we are on one another
(COM)	I care very much about other people
(COM)	Considering the welfare of others is very important
(COM)	I empathize with other people who face difficulties
(COM)	I feel sympathetic to the plight of the underprivileged
(COM)	I get very upset when I see other people being treated unfairly
(COM)	I find it hard to be sympathetic toward starving people in foreign lands when there is so much trouble in our own country
(COM)	It is not really my problem if others are in trouble and need help
(COM)	I am often moved by the plight of the underprivileged
(COM)	I have compassion for people in need who are willing to take the first step to help themselves
(COM)	I wholeheartedly support most of public programs
(COM)	I wish that public service contributes to the welfare of the society, even if it harms my interest
(COM)	I feel compassion for others in the difficulties they are facing
(CPI)	An official's obligation to the public should always come before loyalty to superiors
(CPI)	I unselfishly contribute to my community
(CPI)	Is hard for me to get intensely interested in what is going in my country
(CPI)	People may talk about the public interest, but they are really concerned only about their self-interest
(CPI)	I consider public service my civic duty
(CPI)	I would prefer seeing public officials do what is the best for the whole community, even if it harmed my interests
(CPI)	To me, serving the public interest is more important than helping other people.
(CPI)	I recognize myself with the mission of protection of liberties and rights endorsed by the nation-state.
(CPV)	It is important that public servants account for all the costs/expenses they make
(CPV)	We have to do everything in our power to pursue the goal of democracy

(CPV)	I think equal opportunities for citizens are very important
(CPV)	It is fundamental that the interests of future generations are taken into account when developing public policies
(CPV)	It is important that citizens can rely on the continuous provision of public services
(CPV)	To act ethically is essential for public servants
(CPV)	I recognize myself with the promotion of the equality of chances endorsed by the nation-state
(CPV)	It is fundamental that public service innovates to respond to the new needs of the citizens/clients
(CPV)	It is fundamental that the public service provided to the citizen is regular and continuous
(CPV)	The dignity and well-being of all should be the most important concerns in any society
(SJ)	I am not afraid to go to bat for the right of others even if it means I will be ridiculed
(SJ)	I am willing to use every ounce of my energy to make the world a more just place
(SJ)	I believe that there are many public causes worth championing
(SJ)	I don't believe that government can do much to make society fairer
(SJ)	If any group does not share in the prosperity of our society, then we are worse off
(SS)	Doing well financially is definitely more important to me than doing good deeds
(SS)	I am one of those rare people who would risk personal loss to help someone else
(SS)	I think people should give back to society more than they get from it
(SS)	Much of what I do is for a cause bigger than myself
(SS)	Serving citizens would give me a good feeling even if no one paid me for it
(SS)	Making a difference in society means more to me than personal achievements
(SS)	I am prepared to make sacrifices for the good of society
(SS)	I am willing to risk personal loss to help society
(SS)	I believe in putting civic duty before self
(SS)	I would agree to a good plan to make a better life for the poor, even if it costs me money
(SS)	It is definitely more important to me to do good deeds, than doing well financially
(SS)	It is not important that people give back to society more than they get from it

8.2 TRANSLATION TO THE ITALIAN LANGUAGE

Each item has been translated from English into Italian language (Appendix 1). From a methodological point of view, a professional translation consultant is necessary to guarantee a reliable and high level of conformity between the original and the translated version of an item. For this reason, we asked for collaboration from the Language & Linguistics section of the Department of Legal science, Language, Translation and Interpreting Studies (IUSLIT) at the University of Trieste. However, although the professional language knowledge is necessary, adequate psychological prospective and theoretical framework are needed to perfectly ensure the precise translation of the original items (Van de Vijver & Poortinga, 2005). For this reason, we have presented to the translators the aim of our research and we handed them a written summary in regards to the PSM theoretical background. We also gave them methodological indications which resulted fundamental for guaranteeing the “psychological similarity of items” (Van de Vijver & Poortinga, 2005). For instance, we asked them to maintain the original formulation of affirmation or negation of every sentence. An example of a formulated sentence such as affirmation is: “*I believe that there are many public causes worth championing*” (Perry, 1996). An example of a formulated sentence such as negation is “*I don't believe that government can do much to make society fairer*” (Perry, 1996). We also asked them to ensure that every translated sentence respect

the original moral value, which may be positive or negative. For instance, the following items exemplify this situation:

- a) *Doing well financially is definitely more important to me than doing good deeds* (Perry, 1996);
- b) *It is definitely more important to me to do good deeds, than doing well financially* (Giauque & Anderfuhren-Biget, 2010).

From the moral value point of view, the sentences present opposite meaning. In fact, they are inversed from each other: the former describes a reprehensible social behaviour (i.e., negative moral value); the latter describes an appreciable social behaviour (i.e., positive moral value). Giving that the authors usually create the items taking into consideration the social desirability, we asked that the translated version did not modify the moral value – positive or negative – of each sentence. In Table 5 the sentences with the negative moral values are shown.

Table 5: *Items with negative moral value used to measure PSM*

DIMENSION	ITEM FORMULATED NEGATIVELY (Translated version)
(SS)	Per me è assolutamente più importante avere successo finanziario che fare buone azioni
(COM)	Rimango raramente toccato dalla condizione dei bisogni
(COM)	Penso raramente al benessere delle persone che non conosco personalmente
(CPI)	Faccio fatica a interessarmi intensamente a ciò che accade nel mio Paese
(COM)	Non è realmente un mio problema se gli altri sono in difficoltà e necessitano di aiuto
(CPI)	Le persone possono parlare di interesse pubblico, ma in realtà si preoccupano solo dei propri interessi
(APM)	Politica è una parola sporca

8.3 BACK-TRANSLATION IN THE ENGLISH LANGUAGE AND EVALUATION OF SIMILARITY BETWEEN ITEMS

Based on the indications of Guthery and Lowe (1992) and Hambleton (2005), seven methods to translate items of a questionnaire exist (i.e., *Simple direct translation; Forward translation; Translation/Back-translation; Ultimate test; Parallel Blind Technique; Random Probe Technique; Decentering*)²⁶. From these, we chose to use the *Translation/Back translation* method

²⁶ These are the seven methods:

1) *Simple direct translation*: A bilingual person simply translates the test from the source language.

2) *Forward translation*: A ten-step procedure called *modified direct translation* (or *forward translation*). Firstly a bilingual person translates the test; secondly, within a group of experts, each member evaluates the translation individually, then all members meet to share their opinions. Afterwards the experts meet the translator and try to solve any disagreement. If they are not able to find an agreement, the author of the original version of the test should be

since our intention was to compare the original items to those translated to the Italian language, detecting possible mistakes caused by the process of translation. Thus, each translated item was back-translated into the English language by a native English speaker professional translator, who lives and works in Italy. Therefore, we created a list composed of two pairs of items (i.e., originals and back-translated). Each pair of items was evaluated by an English assessor university employee in the United Kingdom. For each pair of items, the assessor was asked to assign a level of similarity through the Likert scale ranging from 1 to 5, where:

1 = the meaning of the sentences is completely different;

2 = the meaning of the sentences is quite different;

3 = the sentences are somewhat similar;

involved in order to explain with different words the meaning of the items. In the end the final version is reviewed by another subject who checks the effectiveness of the translated items.

3) *Translation/Back-translation*: This is probably the most common procedure. The “traditional” form includes four different steps: 1. A bilingual person translates the test (*translation*). 2. A second bilingual person who does not know the source text translates the target text back to the original language (*back-translation*). 3. The original version and the back-translated one are compared. 4. The items which are very different between the two versions are either examined and modified or removed to make a different translation.

4) *Ultimate test*: This is a two-step procedure: during the first step, called *performance criterion*, some subjects are asked to answer the items of the translated version. Afterwards a number of bilingual people is taken and divided into four random groups: each group is asked to answer the items of the original version, or the items of the translated version, or a version where the first half of the items is in the source language while the second half is translated into the target language, or a version where the first half of the items is translated into the target language while the second half is in the source language.

5) *Parallel Blind Technique*: At least two bilingual people translate the test individually. Then they compare their versions to make a final one. In the end a researcher verifies if it is appropriate both at a linguistic and psychological level.

6) *Random Probe Technique*: The researcher translates the test and submits the translated version to a group of subjects of the target population. These subjects are then interviewed to know how and why they have answered to the items. If something strange or incoherent comes out from these interviews, this means that the objective has not been achieved.

7) *Decentering*: A foreign author makes a questionnaire and translates it into the new language.

It is also possible to use a ‘mixed’ procedure, where the authors combine different elements from the listed procedures according to their needs.

4 = both sentences have the same meaning;

5 = the sentences are totally identical.

The pairs of items that obtained an evaluation equal or higher than 4 were considered equivalent. If the evaluation resulted below to 4, we asked the assessor to indicate the reason of discrepancy in a specific space for notes. In Table 6, some examples of pairs of items evaluated are shown. Therefore, we analysed the notes given by the assessor, using them to decide the removal or not of an item. This procedure caused an elimination of eight items from the original 81-item list previously collected.

Table 6: *Examples of evaluation of the pairs of items (original vs back-translated)*

ORIGINAL ITEM	ITEM TRANSLATED FROM ITALIAN VERSION	EVALUATION OF SIMILARITY	NOTES
To me, serving the public interest is more important than helping other people	For me, serving the public interest is more important than helping other people	5= the sentences are totally identical	
Much of what I do is for a cause bigger than myself	A lot of what I do is for a cause greater than myself	4= both sentences have the same meaning	
It is difficult for me to contain my feelings when I see people in distress	I find it difficult to hold back my emotions when I see people in need	3= the sentences are somewhat similar	Distress is emotional word, need is objective
The give and take of public policy making doesn't appeal to me	I don't like the payback involved in politics	2= the meaning of sentences is quite different	Give and take is a compromise. Payback is a (1)return or (2)revenge

8.4 DRAFTING OF THE QUESTIONNAIRE

Based on the aforementioned information, the list of items was reduced to 73 items. The items were randomized in order to obtain the proper questionnaire to submit to the subject. Beside each item, a Likert scale of agreement or disagreement corresponding to the following labels was inserted:

1 = Totalmente in disaccordo (Totally disagree);

2 = Parzialmente in disaccordo (Partly disagree);

3 = Né d'accordo né in disaccordo (Neither agree nor disagree);

4 = Parzialmente d'accordo (Partly agree);

5 = Totalmente d'accordo (Totally agree).

A limitation in previous attempts on measuring PSM by researchers was that their questionnaires were submitted in a digital form, being unable strategy to reach all public employees,

which created a type of “preliminary selection”. In fact, only the employees who work with computer would have the possibility to respond to the questionnaire. Consequently, we chose to use paper-questionnaires because this option guarantees a higher percentage of respondents, even if it consisted of a more expensive and laboured strategy. Indeed, this method has allowed us to contacting even the employees who did not work in offices or with very little access to computers, obtaining a larger range of respondents.

In the first page of the questionnaire handed to the participants, we briefly explained the purpose of the study and, in order to not affect the answers, we provided a subtle description of the research. Moreover, we guaranteed that they would stay anonymous to stimulate the maximum sincerity in the answers. Instructions about how to answer the questionnaire using the Likert scale were also included on the first page (Figure 3). The following three pages contained the items and the Likert scales.

Figure 3: Example provided to participants on how to use the Likert scale

Esempio:

	Totalmente in disaccordo	Parzialmente in disaccordo	Né d'accordo né in disaccordo	Parzialmente d'accordo	Totalmente d'accordo
I bambini dovrebbero passare tutto il loro tempo davanti alla TV	X	2	3	4	5

Then, we deeply checked the questionnaire in order to avoid that a pair of items with opposite meaning appeared on the same page, making the self-check²⁷ more difficult. The pairs of items having opposite meaning will be used in checking the reliability of the respondents in the final version of the questionnaire.

²⁷ When two similar sentences are on the same page, if the respondent intercepts the semantical similarity between them when answering the second one, he/she tends to come back to the first sentence to verify the answer that was given. When similar items are put on different pages, the probability of the “back-check” is reduced.

8.5 PILOT STUDY

In order to verify the understandability of the 73 items selected from the *translation-back translation* method and their discriminating capacity²⁸, we performed a *pilot study* on a sample of public employees. The Council of Pordenone has given its availability after a meeting with the mayor and presentation of the project to the trade unions that evaluated the practicability and fairness of the research.

The following actions were used to ensure anonymity of the respondents and non-involvement of the Council in the research:

- a letter of presentation highlights the participation in a project promoted by the Trieste University, which was signed by the professor responsible of the research;
- a white envelope in which the questionnaire should be inserted after it was filled, given to every participant;
- Cardboard boxes/urns, which were placed in municipal buildings for collecting the white envelopes containing the questionnaires.

The mayor of Pordenone requested a general meeting with all municipal councillors, which actively participated in organizing the distribution of the questionnaires within their structures. This allowed that even employees that were working out of the offices – such as social assistants and local police – be contacted. In total, approximately 500 questionnaires were distributed, from which 216 returned. Description of respondents is shown in Appendix 5.

Regarding the results of the returned questionnaires, all items were classified as easy-to-understand by the respondents. For the discriminative capacity of the items, we considered as unacceptable the items in which 90% or more of the subjects²⁹ chose the extreme points of the Likert scale (i.e., 1 and 2; 4 and 5) and those in which one of the five points of the scale was not chosen from any respondent. Consequently, eleven items resulted incapable of sufficiently discriminating the answers (see Table 7).

²⁸ Each item must result as much as possible able to distinguish the answers of the respondents. From a theoretical point of view, an item has maximum discriminating capacity when the answers of the participants are distributed in equal percentage. In the case of the Likert scale ranging from 1 to 5, that means that each level must receive 20% of the answers.

²⁹ We could not apply the Roberts (1978) criterion which considers unacceptable the items in which 25% or more of the respondents chose the minimum or maximum level of the Likert scale (i.e., 1 or 5). In fact, this criterion could have eliminated sixty-one items from a total of seventy-three, making this research unusable.

Table 7: Items with low discriminating capacity based on the pilot study results

Item	% of responses to Likert scale scores				
	1	2	3	4	5
	Totalmente in disaccordo	Parzialmente in disaccordo	Né d'accordo né in disaccordo	Parzialmente d'accordo	Totalmente d'accordo
quest_05_Ammiro le persone che danno avvio o sono coinvolte in attività che aiutano la mia comunità	1.4	0.9	6.9	16.7	74.1
quest_12_Sono soddisfatto quando osservo le persone trarre beneficio da progetti pubblici in cui sono coinvolto	2.3	2.3	4.6	24.1	66.7
quest_22_Ritengo che il servizio alla collettività sia un mio dovere civico	0.0	4.2	15.3	34.2	46.3
quest_30_Mi turba molto vedere altre persone esser trattate ingiustamente	0.0	2.3	7.9	26.4	63.4
quest_50_È fondamentale che il servizio pubblico si aggiorni per rispondere alle nuove esigenze dei cittadini	0.9	2.3	2.8	21.8	72.2
quest_51_È fondamentale che gli interessi delle future generazioni siano tenuti in considerazione quando si sviluppano politiche pubbliche	1.9	0.9	4.6	14.8	77.8
quest_54_È importante che i cittadini possano contare sull'offerta continua di servizi pubblici	1.9	0.9	6.5	27.8	62.9
quest_56_È importante che il servizio pubblico fornisca beni utili ³⁰	1.4	2.3	6.5	19.4	70.4
quest_63_Per me un servizio pubblico efficiente è molto importante	0.5	0.9	5.1	10.2	83.3
quest_72_La dignità ed il benessere di tutti dovrebbero interessare moltissimo qualsiasi società	0.5	2.3	6.0	18.5	72.7
quest_75_Agire eticamente è fondamentale per gli addetti al servizio pubblico	0.0	1.9	2.8	15.3	80.0

8.6 DRAFTING OF THE NEW VERSION OF THE QUESTIONNAIRE

The eleven items identified from the *pilot study* with low discriminating capacity were removed from the questionnaire. As a consequence, the preliminary version of the *Italian PSM Questionnaire* was composed of sixty-two items (Table 8). From these, we identified four pairs of items (Table 8, sentences with *). Each pair was characterized by two sentences with opposite meaning: the first sentence had a positive moral value (e.g., *I am often moved by the plight of the underprivileged*) and the second sentence had a negative moral value (e.g., *I am rarely moved by the plight of the underprivileged*). These pairs of items were used to define a criterion for detecting the reliability of the subject's answers in the final version of the *Italian PSM Questionnaire*

³⁰ This item showed a frequency of answers par to 89.8% on the 4 and 5 points of the Likert scale, i.e., lower than 90%, defined as a cut-off. However, considering the high *ceiling effect* of the distribution of the answers given to this item, we decided to consider it unacceptable and therefore to remove it from the questionnaire.

Table 8: Preliminary version of the Italian PSM Questionnaire

PSM01	Il dovere pubblico di un funzionario dovrebbe sempre venire prima della fedeltà verso i suoi superiori Orig: An official's obligation to the public should always come before loyalty to superiors
PSM02	Pensare al benessere altrui è molto importante Orig: Considering the welfare of others is very important
PSM03	Per me è assolutamente più importante avere successo finanziario che fare buone azioni Orig: Doing well financially is definitely more important to me than doing good deeds
PSM04	Il comportamento etico dei funzionari pubblici è tanto importante quanto la loro competenza professionale Orig: Ethical behavior of public officials is as important as competence
PSM05	Sono interessato a realizzare progetti pubblici che portino beneficio al mio Paese o alla comunità cui appartengo Orig: I am interested in making public programs that are beneficial for my country or the community I belong to
PSM06	Non ho paura di battermi per i diritti degli altri anche se questo significa mettersi in ridicolo Orig: I am not afraid to go to bat for the right of others even if it means I will be ridiculed
PSM07	Sono spesso toccato dalla condizione dei bisognosi(*) Orig: I am often moved by the plight of the underprivileged
PSM08	Sono una di quelle poche persone che rischierebbero una perdita personale per aiutare qualcun altro Orig: I am one of those rare people who would risk personal loss to help someone else
PSM09	Sono pronto a fare sacrifici per il bene della società Orig: I am prepared to make sacrifices for the good of society
PSM10	Rimango raramente toccato dalla condizione dei bisognosi (*) Orig: I am rarely moved by the plight of the underprivileged
PSM11	Sono molto interessato alla politica Orig: I am very interested in politics
PSM12	Sono molto interessato a ciò che accade nel mio Paese(**) Orig: I am very interested in what is happening in my country
PSM13	Sono disposto a fare grandi sforzi per adempiere al mio dovere verso il mio Paese Orig: I am willing to go great lengths to fulfill my obligations to my country
PSM14	Sono disposto a rischiare perdite personali per aiutare la società Orig: I am willing to risk personal loss to help society
PSM15	Sono disposto ad usare ogni briciola della mia energia per rendere il mondo un luogo più giusto Orig: I am willing to use every ounce of my energy to make the world a more just place
PSM16	Credo si debba anteporre il dovere civico a se stessi Orig: I believe in putting civic duty before self
PSM17	Credo che tutti abbiamo un impegno morale verso le questioni civiche, indipendentemente da quanto siamo indaffarati Orig: I believe everyone has a moral commitment to civic affairs no matter how busy they are
PSM18	Mi preoccupo moltissimo delle altre persone Orig: I care very much about other people
PSM19	Mi sento empatico verso le persone che affrontano difficoltà Orig: I empathize with other people who face difficulties
PSM20	Provo compassione per chi sta affrontando delle difficoltà Orig: I feel compassion for others in the difficulties they are facing
PSM21	Ritengo che le persone debbano restituire alla società più di quanto ricevono(***) Orig: I think people should give back to society more than they get from it
PSM22	Trovo difficile essere solidale nei confronti delle persone affamate in terre straniere quando ci sono così tanti problemi nel nostro Paese Orig: I find it hard to be sympathetic toward starving people in foreign lands when there is so much trouble in our own country
PSM23	Mi sento obbligato a prendermi cura delle persone bisognose Orig: I have an obligation to look after those less well of
PSM24	Ho compassione per le persone bisognose che sono disposte a fare il primo passo per aiutare se stesse Orig: I have compassion for people in need who are willing to take the first step to help themselves
PSM25	Mi piace discutere di politica con gli altri Orig: I like to discuss political subjects with others
PSM26	Mi piace avviare azioni che aiutino la mia comunità Orig: I like to initiate actions to help out my community
PSM27	Mi identifico con la missione di tutela delle libertà e dei diritti riconosciuti dallo Stato Orig: I recognize myself with the mission of protection of liberties and rights endorsed by the nation-state
PSM28	Concordo con la promozione delle pari opportunità riconosciute dallo Stato Orig: I recognize myself with the promotion of the equality of chances endorsed by the nation-state
PSM29	Rispetto i funzionari pubblici che sono in grado di trasformare una buona idea in una legge Orig: I respect public officials who can turn a good idea in to law
PSM30	Penso raramente al benessere delle persone che non conosco personalmente Orig: I seldom think about the welfare of the people whom i don't know personally
PSM31	Ritengo davvero importanti le pari opportunità per i cittadini Orig: I think equal opportunities for citizens are very important

PSM32_Credo che le attività del governo contribuiscano al nostro benessere
 Orig: I think the governmental activities contribute to our welfare

PSM33_Contribuisco in modo disinteressato alla mia comunità
 Orig: I unselfishly contribute to my community

PSM34_Appoggio incondizionatamente la maggior parte dei programmi pubblici(****)
 Orig: I wholeheartedly support most of public programs

PSM35_Spero che il servizio pubblico contribuisca al benessere della società, anche se viene danneggiato il mio interesse
 Orig: I wish that public service contributes to the welfare of the society, even if it harms my interest

PSM36_Sono favorevole ad un buon programma che migliori la vita dei bisognosi, anche se questo mi costa economicamente
 Orig: I would agree to a good plan to make a better life for the poor, even if it costs me money

PSM37_Preferisco vedere i funzionari pubblici fare ciò che è meglio per la collettività, anche se questo lede i miei interessi
 Orig: I would prefer seeing public officials do what is the best for the whole community, even if it harmed my interests

PSM38_Se ciascun gruppo non partecipa alla prosperità della nostra società, tutti quanti stiamo peggio
 Orig: If any group does not share in the prosperity of our society, then we are worse off

PSM39_Faccio fatica a interessarmi intensamente a ciò che accade nel mio Paese(**)
 Orig: Is hard for me to get intensely interested in what is going in my country

PSM40_È sicuramente più importante per me fare buone azioni che stare bene economicamente
 Orig: It is definitely more important to me to do good deeds, than doing well financially

PSM41_È fondamentale che il servizio pubblico provveda ai cittadini con regolarità e continuità
 Orig: It is fundamental that the public service provided to the citizen is regular and continuous

PSM42_Per me è importante contribuire al bene comune
 Orig: It is important for me to contribute to the common good

PSM43_È importante contribuire alle attività che affrontano problemi sociali
 Orig: It is important to contribute to activities that tackle social problems

PSM44_È importante contribuire in modo disinteressato al bene comune
 Orig: It is important to unselfishly contribute to the common good

PSM45_È una mia responsabilità aiutare a risolvere problemi che derivano dall'interdipendenza tra le persone
 Orig: It is my responsibility to help solve problems arising from interdependencies among people

PSM46_Non è importante che le persone rendano alla società più di quanto hanno ricevuto(***)
 Orig: It is not important that people give back to society more than they get from it

PSM47_Non è realmente un mio problema se gli altri sono in difficoltà e necessitano di aiuto
 Orig: It is not really my problem if others are in trouble and need help

PSM48_Per me è più importante dare un contributo alla società che raggiungere i miei traguardi personali
 Orig: Making a difference in society means more to me than personal achievements

PSM49_La maggior parte dei programmi di assistenza sociale sono troppo importanti per farne a meno
 Orig: Most social programs are too vital to do without

PSM50_Gran parte di quello che faccio è per una causa più grande di me
 Orig: Much of what I do is for a cause bigger than myself

PSM51_Le persone possono parlare di interesse pubblico, ma in realtà si preoccupano solo dei propri interessi
 Orig: People may talk about the public interest, but they are really concerned only about their self-interest

PSM52_Politica è una parola sporca
 Orig: Politics is a dirty word

PSM53_Guardare le persone trarre beneficio dai programmi pubblici che appoggio mi da molta soddisfazione
 Orig: Seeing people get benefits from the public program I have been deeply involved in brings me a great deal of satisfaction

PSM54_Servire i cittadini mi farebbe stare bene anche se nessuno mi pagasse per questo
 Orig: Serving citizens would give me a good feeling even if no one paid me for it

PSM55_Trovo interessante condividere con altri la mia visione sulla politica pubblica
 Orig: Sharing my views on public policies with others is attractive to me

PSM56_Ci sono pochi programmi pubblici che sostengo incondizionatamente(****)
 Orig: There are few public programs that I wholeheartedly support

PSM57_Per me, il patriottismo significa anche aver riguardo del benessere altrui
 Orig: To me, patriotism includes seeing to the welfare of others

PSM58_Per me, servire il pubblico interesse è più importante che aiutare altre persone
 Orig: To me, serving the public interest is more important than helping other people

PSM59_Per me il motto "dovere, onore e Paese" evoca emozioni profonde
 Orig: To me, the phrase "duty, honor, and country" stirs deeply felt emotions

PSM60_Dobbiamo fare tutto ciò che è in nostro potere per affermare la vittoria della democrazia
 Orig: We have to do everything in our power to pursue the goal of democracy

PSM61_Quando i funzionari pubblici prestano giuramento credo che accettino doveri non previsti per gli altri cittadini
 Orig: When public officials take an oath of office, I believe they accept obligations not expected of other citizens

PSM62_Gli eventi quotidiani mi ricordano spesso quanto dipendiamo gli uni dagli altri
 Orig: I am often reminded by daily events how dependent we are on one another

(*); (**); (***); (****) pairs of opposite items.

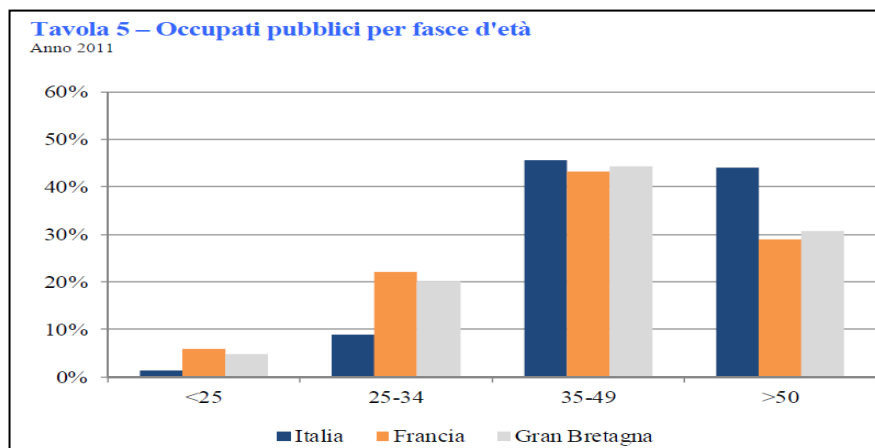
In this new version of the questionnaire, we added a personal information form at the end of the items. The personal information form contained questions about:

- range of age;
- gender;
- level of education;
- type of contract;
- seniority of service;
- position;
- branch of public employment.

The categories were determined using official information about Public Administration. For instance, to define the ranges of age, we based on the ARAN³¹ Semestral Report of June 2012. This report considers the public employees retributions, which are classified in four ranges of age (see Figure 4):

1. <25 years of age;
2. 25 - 34 years of age;
3. 35 - 49 years of age;
4. \geq 50 years of age.

Figure 4: Reproduction of Table 5 of the ARAN Semestral Report of June 2012 from which the ranges of age of the Italian public employees were taken



³¹ Agenzia per la Rappresentanza Negoziata delle pubbliche amministrazioni – Agency for negotiating representation of the public administrations.

The categories regarding the level of education were made using a simple list of the various education degrees:

- “Dottorato o specializzazione post-laurea” (*Doctorate or Post-graduate degree*), including Master Universitario post-laurea;
- “Laurea magistrale, specialistica o Laurea cosiddetta del vecchio ordinamento” (*Master’s degree*);
- “Diploma universitario o Laurea triennale” (*Bachelor’s degree*);
- “Diploma di maturità” (*High-school degree*);
- “Licenza media inferiore o di avviamento professionale” (*Middle school certificate*);
- “Licenza elementare” (*Primary school certificate*);
- “Nessun titolo di studio” (*No degree*).

In relation to the type of contract, we decided to discriminate considering the most frequently types of employment contract:

- “Tempo determinato” (*Fixed-term contract*),
- “Tempo indeterminato” (*Open-ended contract*),
- “Altre tipologie di contratto” (*Other contracts*).

Regarding the seniority of service, the categories of answers were obtained from the “UILscuola” website, which subdivides the seniority of service in the following ranges:

- <5 years;
- 5-10 years;
- 11-20 years;
- >20 years.

The most complex part was the creation of a list for indicating the professional position. Indeed, equivalent qualifications are often named in different ways in different branches of public employment, as shown in the Table 9. We therefore tried to find a solution that could be easily understandable, in which the respondents could easily identify themselves. To draft it, we compared the schemes shown on the IMPI³² website with the inter-ministerial decree of 18th April 2002

³² IMPI (Interscambio e Mobilità nel Pubblico Impiego- Exchange and Mobility between public sectors). The website offers a communal container for the request of mobility and exchange between public employees.

published in the Gazzetta Ufficiale n. 113 of 16th May 2002³³, resulting in the following list of professional positions:

- “Dirigente” (*Executive*),
- “Quadro/Posizione Organizzativa” (*Middle manager*),
- “Personale di Terza Area” (*Higher-level employee*),
- “Personale di Seconda Area” (*Lower-level employee*),
- “Personale non dipendente” (*Non-employee - i.e., volunteers, trainees, interns, other*).

Finally, the last question of the personal form concerns the branch of public employment in which the respondent is employed. In this case, we have identified the various categories of the answer through the ARAN website:

- “Enti locali (*Local Entities - i.e., regioni, province, comuni, IPAB, camere di commercio*)”;
- “Enti pubblici non economici (*Non-economic Public Entities - e.g., INPS, INAIL, INPDAP.*)”;
- “Enti art. 70 d.lgs. 165/2001 (e.g., CNEL, ENEA, CONI, ENAC)”;
- “Ministeri”;
- “Agenzie Fiscali”;
- “Aziende (*Companies - e.g., Ferrovie dello Stato, RAI*)”;
- “Sanità”;
- “Forze dell’Ordine (*Health, Law enforcement - i.e., Polizia di Stato, Carabinieri, Finanza, Forestale, Polizia Penitenziaria*)”.

The only exception was the choice to join the school and the university branches in a single label: “Istruzione” (*Education*).

The personal information form created on these bases is shown in Appendix 2.

³³ “*Transito di personale delle Forze armate e dell’Arma dei carabinieri giudicato non idoneo al servizio militare incondizionato per lesioni dipendenti o non da causa di servizio nelle aree funzionali del personale civile del Ministero della difesa, ai sensi dell’art. 14, comma 5, della legge 28 luglio 1999, n. 266*”, promoted by the Ministry of Defence in collaboration with the Ministry of Economy and Finance, and Ministry of Public Administrations.

Table 9: Synoptic table for the equivalences of levels between various branches of the Italian public employment

EX QUALIFICHE FUNZIONALI	COMPARTO REGIONI - ENTI LOCALI	COMPARTO MINISTERI	COMPARTO PARASTATO	COMPARTO S.S.N	COMPARTO SCUOLA	COMPARTO UNIVERSITA'	FORZE ARMATE
FORMER PUBLIC QUALIFICATIONS	LOCAL ENTITIES SECTOR	MINISTRIES SECTOR	SEMI-PUBLIC SECTOR	HEALTH SECTOR	SCHOOL SECTOR	UNIVERSITY SECTOR	ARMY
I	-	A1	A1	A	D1/D2	B1	-
II	-	A1	A1	A	C1/C2	B1	-
III	A1	A1	A1	A	B1/B4	B1	-
III + LED	A2	-	-	-	-	-	-
IV	B1	B1	A2	B	A1/A2	B2	-
IV + LED	B2	-	-	-	-	-	-
V	B3	B2	B1	B super	-	B3	Caporal Maggiore capo scelto o inferiore
V + LED	B4	-	-	-	-	-	-
VI	C1	B3	B2	C	-	C2	Sergente
VI + LED	C2	-	-	-	-	-	Sergente Maggiore Maresciallo
VII	D1	C1	C1	D	-	C4	Sergente Maggiore Capo
VII + LED	D2	-	-	-	-	-	Maresciallo Ordinario
VIII	D3	C2	C3	D super	-	D2	Maresciallo Capo
IX	-	C3	C4	-	-	EP2	1° Maresciallo Luogotenente Sottotenente
X	-	-	-	-	-	EP2 (I qrs)	Tenente Capitano
-	-	-	-	-	-	EP4 (II qrs)	Maggiore
							Tenente Colonnello

8.7 DISTRIBUTION OF THE QUESTIONNAIRE TO AN ITALIAN SAMPLE OF PUBLIC EMPLOYEES

A consistent number of public employee respondents was necessary to validate the questionnaire. For this reason, we contacted schools, regional entities, local entities, and other administrations of Friuli Venezia-Giulia area.

The “Divisione Julia” public school was the unique school of Trieste among the various schools contacted that accepted to participate in this research. This school includes primary and middle schools and, therefore, has a large number of employees.

In all local entities, after approval of the mayors, the research was presented to the trade unions, which evaluated the practicability and fairness.

Regarding to the Friuli Venezia-Giulia Region, which accounts over 3000 employees, the process required more time. The Head of the Staff read the purposes of the research and consulted the opinion of the Personnel Psychologist, deciding to authorise the research. Subsequently, the trade unions were informed. However, considering that the Friuli Venezia-Giulia Region has offices spread out in different localities, we decided to involve only the thirteen most numerous offices placed in the provinces of Trieste, Pordenone and Udine.

In the other contacted administrations, the administration of the questionnaire was performed in a less formal and standard way.

Considering all the involved entities, over 1600 questionnaires were distributed. Unfortunately, the phase of distribution of the questionnaires was performed during the summer

because the delay to approve the project by the various contacted entities. Consequently, a higher number of employees was on holiday during the distribution of the questionnaires.

8.8 COLLECTING OF QUESTIONNAIRES AND DATA-ENTRY

As in the *pilot study*, an urn to deposit the envelopes with the filled questionnaires was placed in every office. In total, the questionnaires handed back and usable for statistical analysis were 780 (i.e., 47.5% of the distributed questionnaires). The Table 10 shows the number of distributed questionnaires in each entity, the number of usable questionnaires and the percentage of respondents.

Table 10: Number of distributed questionnaires in each entity, of usable questionnaires and percentage of respondents

Entity	Number of distributed questionnaires	Number of usable questionnaires	Percentage of respondents
Regione FVG	1402	707	50,4%
Comune di S. Vito al Tagliamento	50	6	12,0%
Comune di Forni di Sopra	25	13	52,0%
Comune di Azzano Decimo	90	22	24,4%
Comune di Chions	20	9	45,0%
Scuola "Divisione Julia"	55	23	41,8%
TOTAL	1642	780	47,5%

The socio-personal information description of the respondents is illustrated in Table 11. The points assigned by the respondents to the items that were formulated as negation (see Paragraph 2.2) were reversed (i.e., the number 1 of the Likert scale corresponds to the number 6, the number 6 corresponds to the number 1).

After the first check of answers, we verified the absence of *structural missings*³⁴ for both subject and item. Furthermore, we verified that the missing data were *completely missing at random* (MCAR) or at least *missing at random* (MAR). The former foresees that missingness does not depend on the values of all examined variables (Little, 1988). In other words, the propensity for a *value* to be *missing* is completely random. According to Rubin (1976), the latter occurs when, "*for each possible value of a variable, the conditional probability of the observed pattern of missing*

³⁴ Structural missings are frequent omissions of answers. The omissions can concern the item or the subject. When omissions concern an item, a substantial percentage of subjects did not answer to that item, but they answer correctly to the others items. When omissions concern a subject, he/she did not answer to a substantial percentage of questions, while other subjects did it. In the first case (i.e. omissions relating to the item) it is necessary to remove the item from statistic analysis, in the second case (i.e. omissions relating to a subject) it is necessary to remove the subject's answers.

data, given the missing data and the value of the observed data, is the same for all possible values of the missing data”.

Subsequently, the data was imported to the software SPSS version 21.0 and the *missings* were substituted with the *multiple imputation method*.

The total of sample (n=780) was randomly divided to obtain two distinct sub-samples of subjects. The software created two sub-samples, each one composed of 387 and 393 subjects, respectively (see Table 11). In both sub-samples, the sample size satisfied the recommendations indicated by Cattell (1978) and Gorsuch (1983), since the subject-items ratio was higher than 5 in both sub-samples (i.e., 6.67 in the first sub-sample; 6.77 in the second sub-sample). The division of the sample in two distinct sub-samples was due to the necessity of two different types of analysis in this study. In fact, on the first sub-sample an *Exploratory Factor Analysis* (EFA) was made in order to identify latent dimensions that were present within the questionnaire and the reflective indicators of each dimension. On the second sub-samples, a *Confirmatory Factor Analysis* (CFA) was made in order to confirm or modify the factor structure which was identified by the EFA.

Table 11: Description of the total sample and the two sub-samples

		Total sample	Sub-sample 1	Sub-sample 2
	Number of subjects	780 (100%)	387 (100%)	393 (100%)
Gender	Male	331 (42.4%)	160 (41.3%)	171 (43.5%)
	Female	447 (57.3%)	226 (58.4%)	221 (56.2%)
	Not responding	2 (0.3%)	1 (0.3%)	1 (0.3%)
Age	<25 y.o.	4 (0.4%)	1 (0.3%)	3 (0.8%)
	25-34 y.o.	31 (4.0%)	12 (3.1%)	19 (4.8%)
	35-49 y.o.	338 (43.3%)	167 (43.2%)	171 (43.5%)
	≥50 y.o.	407 (52.2%)	207 (53.5%)	200 (50.9%)
Level of education	Doctorate or Post-graduate degree	79 (10.1%)	45 (11.6%)	34 (8.7%)
	Master's degree	287 (36.8%)	135 (34.9%)	152 (38.6%)
	Bachelor's degree	37 (4.7%)	15 (3.9%)	22 (5.6%)
	High-school degree	316 (40.5%)	155 (40.1%)	161 (40.8%)
	Middle school certificate	57 (7.3%)	33 (8.5%)	24 (6.1%)
	Primary school certificate	1 (0.1%)	1 (0.3%)	0 (0.0%)
	No degree	3 (0.4%)	2 (0.3%)	1 (0.2%)
Type of contract	Fixed-term contract	59 (7.6%)	40 (10.3%)	19 (4.8%)
	Open-ended contract	708 (90.8%)	341 (88.1%)	367 (93.4%)
	Other	12 (1.5%)	5 (1.3%)	7 (1.8%)
	Not responding	1 (0.1%)	1 (0.3%)	0 (0.0%)
Seniority of service	<5 years	47 (6.0%)	26 (6.7%)	21 (5.3%)
	5-10 years	156 (20.0%)	69 (17.8%)	87 (22.1%)
	11-20 years	150 (19.2%)	83 (21.4%)	67 (17.0%)
	>20 years	427 (54.7%)	209 (54.0%)	218 (55.6%)
Position	Executive	27 (3.5%)	13 (3.4%)	14 (3.6%)
	Middle manager	151 (19.4%)	74 (19.1%)	77 (19.6%)
	Higher-level employee	213 (27.3%)	96 (24.8%)	117 (29.8%)
	Lower-level employee	372 (47.7%)	195 (50.4%)	177 (45.0%)
	Non-employee	8 (1.0%)	6 (1.6%)	2 (0.5%)
	Not responding	9 (1.2%)	3 (0.8%)	6 (1.5%)
Branch of public employment	Local Entities	734 (94.1%)	360 (93.0%)	374 (95.1%)
	Noneconomic Public Entities	2 (0.3%)	1 (0.3%)	1 (0.3%)
	Health	8 (1.0%)	6 (1.6%)	2 (0.5%)
	Education	26 (3.3%)	15 (3.9%)	11 (2.8%)
	Law enforcement	10 (1.3%)	5 (1.3%)	5 (1.3%)

8.9 EXPLORATORY FACTOR ANALYSIS

On the first sub-sample (n=387), we performed an EFA with *Statistical Package for the Social Sciences* (SPSS) software, version 21.0. The answers that were given by the respondents to 58 items of the questionnaire were included in the analysis. Although the original questionnaire was composed of 62 items, four pairs of opposite items were identified (see par. 2.6), being inaccurate to include two items semantically identical in the analysis from a methodological point of view. As a consequence, the latter answer for each pair was not included in the factor analysis³⁵, remaining 58

³⁵ We decided to exclude from the analysis the items that appeared in the second position and not those which appeared in the first one. Indeed, a respondent could remember - or try to remember - the answer that he/she gave to the first item and, as consequence, the answer given to the second item could not be spontaneous. On the contrary, the item that

answers for analysis. The items that appeared in the latter position were used to identify a method to check the reliability of the answers of respondents (see Paragraph 8.13).

Factor structure was investigated running a *Principal Axis Factoring* (PAF)³⁶ with *Promax Axes Rotation* (Hendrickson & White 1964)³⁷. Factor loading indices were considered significant when greater than 0.30³⁸.

The results of both the Kaiser-Meyer Olkin (KMO) measure and the Bartlett's test indicated that factor analysis was appropriated for this data matrix³⁹ (KMO measure of sampling adequacy: .904; Bartlett's test of sphericity: $p < .001$).

The number of underlying dimensions (i.e., factors) was assessed through the Scree-test (Cattell, 1966): the *Scree Plot* has shown the existence of a five-factor model⁴⁰ (see Figure 5).

appears as first triggers in the mind of the respondent the same "novelty effect" as the other ordinary items (i.e., items which do not occur in pairs).

³⁶ This method was considered as more appropriate respect to the *Principal Component Analysis* (PCA) method. In fact, the PAF specifically considers the common variance between items, whereas the PCA takes into account the 100% of variance. Since the aim of the present analysis was to find out the common factors (i.e., first-order factors), it was more correct to use only the common variance between items.

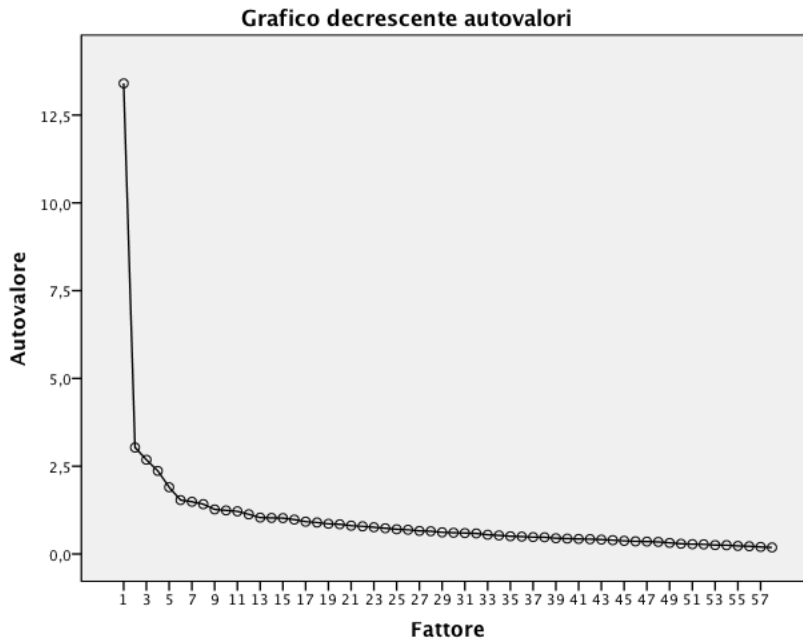
³⁷ Version 21.0 of SPSS offers five rotation methods: varimax, direct oblimin, quartimax, equamax, and promax. Three of those are orthogonal (i.e., varimax, quartimax and equimax), and two are oblique (i.e., direct oblimin and promax). Orthogonal rotations produce factors that are uncorrelated; oblique methods allow the factors to correlate. Although some PSM researchers used the Varimax rotation in their studies, in social sciences we generally expect some correlation among factors. Indeed, using orthogonal rotation results in a loss of valuable information if the factors are correlated, and oblique rotation should theoretically render a more accurate solution (Costello & Osborne, 2011).

³⁸ The higher this index is, the more selective the items selection criterion is. Considering the sample size, we could have been less strict, thus using a lower cutoff. However, we preferred to conform to the cutoff mainly used in literature, which is .30.

³⁹ Hair, Black, Babin, Anderson & Tatham (2006) recommend that a data matrix be initially tested via Kaiser-Meyer Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. KMO compares the size of the observed correlation coefficients with the magnitude of the partial correlation coefficients and is calculated as a value between 0 and 1. A value close to 1 indicates a large number of interrelations among the variables. KMO test being greater than 0.6 indicates that factor analysis is appropriate for the data matrix. Bartlett's test of sphericity indicates whether correlation matrix is an identity matrix (i.e., the diagonal values are 1 and the off diagonals are 0), which would indicate that variables are unrelated. The significance level less than 0.05 indicates that there are significant relationships among variables.

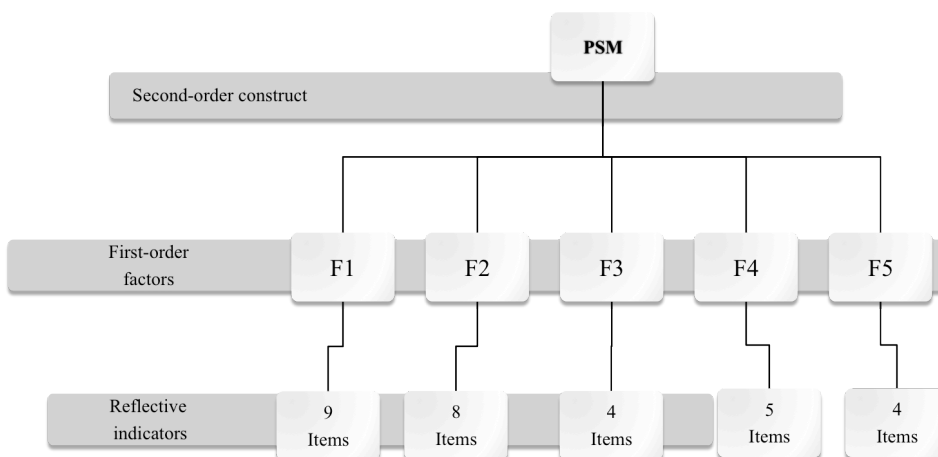
⁴⁰ In the present *scree-plot*, the higher gap between the *eigenvalues* and the *plateau* occur between the 5th and the 6th factor, thus suggesting a five-factor model, or five-factor structure. An alternative method to estimate the number of factors is the extraction of all factors that have *eigenvalue* > 1. Although this method was often used in the past, nowadays it is questioned by scientific literature. Indeed, this method is affected by the *total correlation matrix*, which includes not only the common variance between items but also the uniqueness of the answers, which provoke a significant distortion of the *factor loading indices*.

Figure 5: Scree-plot used to choose the number of factors of the model



Sequential iterations of factor analyses were performed. Step by step, items that did not respect the criteria of the simple structure – meaning that they did not clearly load on a single factor – were removed. Items with loading lesser than 0.30 were removed as well. The final solution converged after five iterations. The final factor structure is shown in Figure 6.

Figure 6: Factor structure resulting from the EFA



The loading factors resulting from the EFA are show in the Table 12.

Table 12: Factors and its items resulting from the EFA

	FACTOR 1 (n=9)	Factor loading indices
PSM09 Sono pronto a fare sacrifici per il bene della società		.424
PSM14 Sono disposto a rischiare perdite personali per aiutare la società		.516
PSM16 Credo si debba anteporre il dovere civico a se stessi		.377
PSM21 Ritengo che le persone debbano restituire alla società più di quanto ricevono		.405
PSM35 Spero che il servizio pubblico contribuisca al benessere della società, anche se viene danneggiato il mio interesse		.757
PSM36 Sono favorevole ad un buon programma che migliori la vita dei bisognosi, anche se questo mi costa economicamente		.724
PSM37 Preferisco vedere i funzionari pubblici fare ciò che è meglio per la collettività, anche se questo lede i miei interessi		.941
PSM40 È sicuramente più importante per me fare buone azioni che stare bene economicamente		.534
PSM54 Servire i cittadini mi farebbe stare bene anche se nessuno mi pagasse per questo		.423
FACTOR 2 (n=8)		
PSM01_ Il dovere pubblico di un funzionario dovrebbe sempre venire prima della fedeltà verso i suoi superiori		.347
PSM04_ Il comportamento etico dei funzionari pubblici è tanto importante quanto la loro competenza professionale		.414
PSM28 Concordo con la promozione delle pari opportunità riconosciute dallo Stato		.590
PSM29 Rispetto i funzionari pubblici che sono in grado di trasformare una buona idea in una legge		.610
PSM31 Ritengo davvero importanti le pari opportunità per i cittadini		.729
PSM38 Se ciascun gruppo non partecipa alla prosperità della nostra società, tutti quanti siamo peggio		.412
PSM41 È fondamentale che il servizio pubblico provveda ai cittadini con regolarità e continuità		.380
PSM60 Dobbiamo fare tutto ciò che è in nostro potere per affermare la vittoria della democrazia		.510
FACTOR 3 (n=4)		
PSM11 Sono molto interessato alla politica		.856
PSM12 Sono molto interessato a ciò che accade nel mio Paese		.605
PSM25 Mi piace discutere di politica con gli altri		.868
PSM55 Trovo interessante condividere con altri la mia visione sulla politica pubblica		.718
FACTOR 4 (n=5)		
PSM02 Pensare al benessere altrui è molto importante		.343
PSM07 Sono spesso toccato dalla condizione dei bisognosi		.608
PSM18 Mi preoccupa moltissimo delle altre persone		.661
PSM20 Provo compassione per chi sta affrontando delle difficoltà		.470
PSM23 Mi sento obbligato a prendermi cura delle persone bisognose		.722
FACTOR 5 (n=4)		
PSM13_ Sono disposto a fare grandi sforzi per adempiere al mio dovere verso il mio Paese		.394
PSM34_ Appoggio incondizionatamente la maggior parte dei programmi pubblici		.474
PSM58_ Per me, servire il pubblico interesse è più importante che aiutare altre persone		.454
PSM59_ Per me il motto “dovere, onore e Paese” evoca emozioni profonde		.595

Each factor from the EFA was composed by items, which the majority of them originally⁴¹ belonged to a same dimension of the PSM (see Table 13). As a consequence, we named each of the five factors with the same name of the original dimension of the predominant items. Some little alterations in the names of the third and fourth factors were made. The items included in the third factor– three items of four – does not actually indicate an inclination in making politics, even if they belonged to the original dimension called *Attraction to Public Making*. On the contrary, they

⁴¹ The term refers to the collection of items from the literature (see Paragraph 2.1)

indicate a genuine interesting of the respondent in politics and in what happens in his/her own Country. Consequently, the factor was named as “Interesse verso la politica” (*Interest towards politics*). In the fourth factor, four of five items belonged to the dimension originally called *Compassion*. However, this dimension name was not literally translated, but it was named as “Solidarietà” (*Solidarity*) because this term was considered more appropriate to the meaning of its items.

Table 13: Number of items of each factor and number of items that originally belonged to a same dimension of the PSM

FACTOR (n° di item)	NUMBER OF ITEMS THAT ORIGINALLY BELONGED TO A SAME DIMENSION (shown in brackets)
F1 – SACRIFICIO PERSONALE - <i>Self-Sacrifice</i> (n=9)	7 (Self-Sacrifice)
F2 – IMPEGNO VERSO I VALORI PUBBLICI - <i>Commitment to Public Values</i> (n=8)	4 (Commitment to Public Values)
F3 – INTERESSE VERSO LA POLITICA - <i>Interest towards politics</i> (n=4)	3 (Attraction to Public Making)
F4 – SOLIDARIETA’ - <i>Solidarity</i> (n=5)	4 (Compassion)
F5 – DOVERE CIVICO - <i>Civic Duty</i> (n=4)	2 (Civic Duty)

Therefore, the five factors resulting from the EFA were:

- Factor 1: “Sacrificio Personale” (*Self-Sacrifice*) (9 items; *Cronbach’s alpha* = 0.734)
- Factor 2: “Impegno Verso i Valori Pubblici” (*Commitment to Public Values*) (8 items; *Cronbach’s alpha* = 0.634)
- Factor 3: “Interesse Verso la Politica” (*Interest towards politics*) (4 items; *Cronbach’s alpha* =0 .764)
- Factor 4: “Solidarietà” (*Solidarity*) (5 items; *Cronbach’s alpha* =0.677)
- Factor 5: “Dovere Civico” (*Civic Duty*) (4 items; *Cronbach’s alpha* =0 .351)

The Table 14 shows the relations between factors.

Table 14: Correlations between the five factors resulting from the EFA

Factor	1 Sacrificio personale	2 Impegno verso i valori pubblici	3 Interesse verso la politica	4 Solidarietà	5 Dovere civico
1 Sacrificio personale	1.000	.411**	.379**	.529**	.384**
2 Impegno verso i valori pubblici		1.000	.255**	.357**	.262**
3 Interesse verso la politica			1.000	.236**	.355**
4 Solidarietà				1.000	.471**
5 Dovere civico					1.000

**p<.01

In general, the first and provisional version of the *Italian PSM Questionnaire* was composed by 34 items, of which:

- 30 items were reflective indicators of five factors (i.e., “Sacrificio Personale” (*Self-Sacrifice*); “Impegno Verso i Valori Pubblici” (*Commitment to Public Values*); “Interesse Verso la Politica” (*Interest towards politics*); “Solidarietà” (*Solidarity*); “Dovere Civico” (*Civic Duty*));
- 4 items were sentences for the *reliability check* of the answers of the respondents.

8.10 LIMITATIONS OF THE EXPLORATORY FACTOR ANALYSIS

In the previous paragraph we defined the version of the Italian PSM Questionnaire provided by the EFA as “provisional”. In fact, it had some statistical limitations. The most evident limitation was the low *Cronbach’s alpha* value of the fifth factor, demonstrating questionable composition, even though the first four factors have adequate *Cronbach’s alpha* values.

Another relevant limitation concerned the lack of *univariate normality* of the items. In fact, the results of the univariate normality of items, checked before performing the EFA, highlighted that 30 items of 62 (i.e., 48.4%) presented asymmetric values of skewness and kurtosis, which were not included between -1 and +1 (Marcoulides & Hershberger, 1997; Peat & Barton, 2005) (see Table 15).

Table 15: Descriptive statistics of the answers ($n=387$) that were given in the questionnaire (raw items)

Item	M	SD	Skewness (Std. Error = .124)	Kurtosis (Std. Error = .247)
PSM01_ Il dovere pubblico di un funzionario dovrebbe sempre venire prima della fedeltà verso i suoi superiori	4.61	.775	-2.381	6.007
PSM02_ Pensare al benessere altrui è molto importante	4.37	.830	-1.517	2.415
PSM03_ Per me è assolutamente più importante avere successo finanziario che fare buone azioni	4.18	1.096	-1.246	.527
PSM04_ Il comportamento etico dei funzionari pubblici è tanto importante quanto la loro competenza professionale	4.61	.897	-2.829	7.903
PSM05_ Sono interessato a realizzare progetti pubblici che portino beneficio al mio Paese o alla comunità cui appartengo	4.44	.810	-1.654	2.998
PSM06_ Non ho paura di battermi per i diritti degli altri anche se questo significa mettersi in ridicolo	3.96	.929	-.833	.576
PSM07_ Sono spesso toccato dalla condizione dei bisognosi	4.16	.877	-1.018	.820
PSM08_ Sono una di quelle poche persone che rischierebbero una perdita personale per aiutare qualcun altro	3.53	1.087	-.599	-.274
PSM09_ Sono pronto a fare sacrifici per il bene della società	3.79	.965	-.949	.909
PSM10_ Rimango raramente toccato dalla condizione dei bisognosi	4.02	1.144	-.955	-.195
PSM11_ Sono molto interessato alla politica	2.98	1.352	-.136	-1.153
PSM12_ Sono molto interessato a ciò che accade nel mio Paese	4.19	.863	-1.104	1.142

PSM13_Sono disposto a fare grandi sforzi per adempiere al mio dovere verso il mio Paese	3.72	.990	-.716	.226
PSM14_Sono disposto a rischiare perdite personali per aiutare la società	2.98	1.180	-.217	-.909
PSM15_Sono disposto ad usare ogni briciola della mia energia per rendere il mondo un luogo più giusto	3.72	1.067	-.684	-.102
PSM16_Credo si debba anteporre il dovere civico a se stessi	3.70	1.065	-.642	-.292
PSM17_Credo che tutti abbiamo un impegno morale verso le questioni civiche indipendentemente da quanto siamo indaffarati	4.27	.893	-1.453	2.298
PSM18_Mi preoccupo moltissimo delle altre persone	3.73	.877	-.756	.761
PSM19_Mi sento empatico verso le persone che affrontano difficoltà	4.04	.921	-1.171	1.730
PSM20_Provo compassione per chi sta affrontando delle difficoltà	4.12	.930	-1.103	1.187
PSM21_Ritengo che le persone debbano restituire alla società più di quanto ricevono	3.00	1.170	-.186	-.880
PSM22_Trovo difficile essere solidale nei confronti delle persone affamate in terre straniere quando ci sono così tanti problemi nel nostro Paese	2.73	1.324	.159	-1.210
PSM23_Mi sento obbligato a prendermi cura delle persone bisognose	3.50	1.006	-.463	-.266
PSM24_Ho compassione per le persone bisognose che sono disposte a fare il primo passo per aiutare se stesse	1.81	1.052	1.657	2.019
PSM25_Mi piace discutere di politica con gli altri	3.06	1.391	-.152	-1.207
PSM26_Mi piace avviare azioni che aiutino la mia comunità	3.89	.964	-.781	.401
PSM27_Mi identifico con la missione di tutela delle libertà e dei diritti riconosciuti dallo Stato	3.67	1.115	-.684	-.166
PSM28_Concordo con la promozione delle pari opportunità riconosciute dallo Stato	4.02	1.114	-1.053	.365
PSM29_Rispetto i funzionari pubblici che sono in grado di trasformare una buona idea in una legge	4.51	.776	-1.850	3.746
PSM30_Penso raramente al benessere delle persone che non conosco personalmente	3.23	1.234	-.049	-1.049
PSM31_Ritengo davvero importanti le pari opportunità per i cittadini	4.34	.929	-1.553	2.154
PSM32_Credo che le attività del governo contribuiscano al nostro benessere	3.02	1.352	-.054	-1.220
PSM33_Contribuisco in modo disinteressato alla mia comunità	3.66	1.098	-.746	.087
PSM35_Appoggio incondizionatamente la maggior parte dei programmi pubblici	2.30	1.162	.347	-1.230
PSM35_Spero che il servizio pubblico contribuisca al benessere della società, anche se viene danneggiato il mio interesse	3.38	1.107	-.442	-.528
PSM36_Sono favorevole ad un buon programma che migliori la vita dei bisognosi, anche se questo mi costa economicamente	3.60	1.107	-.652	-.407
PSM37_Preferisco vedere i funzionari pubblici fare ciò che è meglio per la collettività, anche se questo lede i miei interessi	3.57	1.170	-.571	-.724
PSM38_Se ciascun gruppo non partecipa alla prosperità della nostra società, tutti quanti stiamo peggio	4.44	.854	-1.724	2.897
PSM39_Faccio fatica a interessarmi intensamente a ciò che accade nel mio Paese	3.38	1.277	-.117	-1.338
PSM40_È sicuramente più importante per me fare buone azioni che stare bene economicamente	3.56	1.037	-.562	-.171
PSM41_È fondamentale che il servizio pubblico provveda ai cittadini con regolarità e continuità	4.65	.633	-1.890	3.490
PSM42_Per me è importante contribuire al bene comune	4.44	.715	-1.268	1.741
PSM43_È importante contribuire alle attività che affrontano problemi sociali	4.49	.753	-1.802	4.258
PSM44_È importante contribuire in modo disinteressato al bene comune	4.31	.948	-1.668	2.783
PSM45_È una mia responsabilità aiutare a risolvere problemi che derivano dall'interdipendenza tra le persone	3.60	1.042	-.584	.088
PSM46_Non è importante che le persone rendano alla società più di quanto hanno ricevuto	2.78	1.179	.057	-.874
PSM47_Non è realmente un mio problema se gli altri sono in difficoltà e necessitano di aiuto	3.73	1.124	-.504	-.769

PSM48_Per me è più importante dare un contributo alla società che raggiungere i miei traguardi personali	3.26	1.027	-.315	-.543
PSM49_La maggior parte dei programmi di assistenza sociale sono troppo importanti per farne a meno	4.16	.908	-1.137	1.146
PSM50_Gran parte di quello che faccio è per una causa più grande di me	3.14	1.114	-.227	-.474
PSM51_Le persone possono parlare di interesse pubblico. ma in realtà si preoccupano solo dei propri interessi	2.25	1.077	.625	-.415
PSM52_Politica è una parola sporca	3.32	1.383	-.199	-1.192
PSM53_Guardare le persone trarre beneficio dai programmi pubblici che appoggio mi da molta soddisfazione	4.30	.869	-1.198	1.187
PSM54_Servire i cittadini mi farebbe stare bene anche se nessuno mi pagasse per questo	3.30	1.149	-.436	-.588
PSM55_Trovo interessante condividere con altri la mia visione sulla politica pubblica	3.44	1.255	-.459	-.713
PSM56_Ci sono pochi programmi pubblici che sostengo incondizionatamente	2.25	1.061	.597	-.171
PSM57_Per me, il patriottismo significa anche aver riguardo del benessere altrui	3.93	1.122	-.952	.322
PSM58_Per me, servire il pubblico interesse è più importante che aiutare altre persone	3.02	1.010	-.148	-.350
PSM59_Per me il motto “dovere, onore e Paese” evoca emozioni profonde	2.87	1.312	.021	-1.018
PSM60_Dobbiamo fare tutto ciò che è in nostro potere per affermare la vittoria della democrazia	4.09	.975	-.913	.347
PSM61_Quando i funzionari pubblici prestano giuramento credo che accettino doveri non previsti per gli altri cittadini	3.69	1.316	-.829	-.470
PSM62_Gli eventi quotidiani mi ricordano spesso quanto dipendiamo gli uni dagli altri	4.09	.911	-.866	.473

Consequently, it was predictable that the *multivariate normality* of the answers would not be satisfactory⁴². In fact, before performing the EFA, the *multivariate normality* was checked by calculating the average of the squared Mahalanobis distances and verifying whether the resulting value was lower than the product between the number of the items and the number of the items added by two $[M(D^2) < \rho^*(\rho + 2)]$ ⁴³. The outcome demonstrated that multivariate normality was not assumed. Therefore, in attempt to normalize the data, before the EFA we performed different methods of mathematical⁴⁴ transformations in the items that did not respect the univariate normality. After the transformations, the majority of the items were reached between the intervals of skewness and kurtosis, as indicated by Peat e Barton (2005) (Table 16).

⁴² The respect of the multivariate normality is a prerequisite to perform a factor analysis with the *Principal Axis Factoring* (PAF) (Barbaranelli, 2006).

⁴³ The described method is used in psychometric analysis to define the multivariate normality of data. A distribution of data is considered normal (i.e., multivariate normality) if the equation $[M(D^2) < \rho^*(\rho + 2)]$ is respected.

⁴⁴ The transformations performed are the followings: $[X^2]$; $[X^3]$; $[\log_{10}X]$; $[(X+1)*(X+1)]$; $[(X+3)*(X+3)]$; $[(X+5)*(X+5)]$; $[(X+10)*(X+10)]$; $[1/X]$, where X represents the raw data, that is the answer that the subject gave to the item. Therefore, for each distribution of answers, eight different mathematical transformations were performed, thus generating eight new distributions. As a consequence, for each item that did not respect originally the univariate normality, the “transformed” distribution that resulted to have the better normality was included in the data set.

Table 16: Descriptive statistics of the answers (n=387) that were given in the questionnaire (normalized items)

Item	M	SD	Skewness	Kurtosis
			(Std. Error = .124)	(Std. Error = .247)
PSM01_ Il dovere pubblico di un funzionario dovrebbe sempre venire prima della fedeltà verso i suoi superiori	105.06	35.08	-1.471	.830
PSM02_ Pensare al benessere altrui è molto importante	19.76	6.28	-.916	.035
PSM03_ Per me è assolutamente più importante avere successo finanziario che fare buone azioni	85.51	18.69	-1.063	-.042
PSM04_ Il comportamento etico dei funzionari pubblici è tanto importante quanto la loro competenza professionale	106.77	35.24	-1.752	1.875
PSM05_ Sono interessato a realizzare progetti pubblici che portino beneficio al il mio Paese o alla comunità cui appartengo	20.41	6.20	-1.066	.171
PSM06_ Non ho paura di battermi per i diritti degli altri anche se questo significa mettersi in ridicolo	81.12	15.98	-.544	-.162
PSM07_ Sono spesso toccato dalla condizione dei bisognosi	84.72	15.32	-.765	.035
PSM08_ Sono una di quelle poche persone che rischierebbero una perdita personale per aiutare qualcun altro	21.70	9.25	-.094	-.761
PSM09_ Sono pronto a fare sacrifici per il bene della società	47.08	12.30	-.512	.017
PSM10_ Rimango raramente toccato dalla condizione dei bisognosi	4.02	1.14	-.955	-.195
PSM11_ Sono molto interessato alla politica	170.39	34.92	-.001	-1.136
PSM12_ Sono molto interessato a ciò che accade nel mio Paese	52.42	11.63	-.761	.055
PSM13_ Sono disposto a fare grandi sforzi per adempiere al mio dovere verso il mio Paese	189.17	26.49	-.530	-.113
PSM14_ Sono disposto a rischiare perdite personali per aiutare la società	65.14	18.60	.021	-.887
PSM15_ Sono disposto ad usare ogni briciola della mia energia per rendere il mondo un luogo più giusto	3.72	1.07	-.684	-.102
PSM16_ Credo si debba anteporre il dovere civico a se stessi	3.70	1.07	-.642	-.292
PSM17_ Credo che tutti abbiamo un impegno morale verso le questioni civiche, indipendentemente da quanto siamo indaffarati	19.02	6.58	-.772	-.210
PSM18_ Mi preoccupo moltissimo delle altre persone	14.65	6.06	.009	-.309
PSM19_ Mi sento empatico verso le persone che affrontano difficoltà	26.19	8.38	-.528	-.126
PSM20_ Provo compassione per chi sta affrontando delle difficoltà	51.60	12.37	-.720	-.073
PSM21_ Ritengo che le persone debbano restituire alla società più di quanto ricevono	65.36	18.52	.057	-.860
PSM22_ Trovo difficile essere solidale nei confronti delle persone affamate in terre straniere quando ci sono così tanti problemi nel nostro Paese	4.73	5.09	.956	-.192
PSM23_ Mi sento obbligato a prendermi cura delle persone bisognose	43.30	12.69	-.108	-.601
PSM24_ Ho compassione per le persone bisognose che sono disposte a fare il primo passo per aiutare se stesse	2.07	1.09	.960	.321
PSM25_ Mi piace discutere di politica con gli altri	172.55	36.08	-.027	-1.213
PSM26_ Mi piace avviare azioni che aiutino la mia comunità	193.72	26.10	-.592	-.052
PSM27_ Mi identifico con la missione di tutela delle libertà e dei diritti riconosciuti dallo Stato	3.67	1.12	-.684	-.166
PSM28_ Concordo con la promozione delle pari opportunità riconosciute dallo Stato	197.86	30.01	-.900	-.077
PSM29_ Rispetto i funzionari pubblici che sono in grado di trasformare una buona idea in una legge	12.94	4.45	-1.127	.099
PSM30_ Penso raramente al benessere delle persone che non conosco personalmente	0.47	0.20	-.843	.142
PSM31_ Ritengo davvero importanti le pari opportunità per i cittadini	19.73	6.83	-.994	-.095
PSM32_ Credo che le attività del governo contribuiscano al nostro benessere	3.02	1.35	-.054	-1.220

PSM33_Contribuisco in modo disinteressato alla mia comunità	187.77	29.13	-.560	-.239
PSM35_Appoggio incondizionatamente la maggior parte dei programmi pubblici	12.93	7.80	.663	-.191
PSM35_Spero che il servizio pubblico contribuisca al benessere della società, anche se viene danneggiato il mio interesse	20.38	9.26	.052	-.800
PSM36_Sono favorevole ad un buon programma che migliori la vita dei bisognosi, anche se questo mi costa economicamente	14.20	7.30	-.085	-.907
PSM37_Preferisco vedere i funzionari pubblici fare ciò che è meglio per la collettività, anche se questo lede i miei interessi	3.66	1.11	-.775	-.080
PSM38_Se ciascun gruppo non partecipa alla prosperità della nostra società, tutti quanti stiamo peggio	12.53	4.72	-1.011	-.168
PSM39_Faccio fatica a interessarmi intensamente a ciò che accade nel mio Paese	0.49	0.19	-.716	-.220
PSM40_È sicuramente più importante per me fare buone azioni che stare bene economicamente	3.56	1.04	-.562	-.171
PSM41_È fondamentale che il servizio pubblico provveda ai cittadini con regolarità e continuità	105.38	32.68	-1.289	.256
PSM42_Per me è importante contribuire al bene comune	30.12	7.18	-.877	-.044
PSM43_È importante contribuire alle attività che affrontano problemi sociali	12.71	4.34	-.924	-.254
PSM44_È importante contribuire in modo disinteressato al bene comune	19.49	6.81	-.979	.067
PSM45_È una mia responsabilità aiutare a risolvere problemi che derivano dall'interdipendenza tra le persone	185.93	27.74	-.382	-.240
PSM46_Non è importante che le persone rendano alla società più di quanto hanno ricevuto	9.10	6.79	.762	-.144
PSM47_Non è realmente un mio problema se gli altri sono in difficoltà e necessitano di aiuto	3.73	1.12	-.506	-.763
PSM48_Per me è più importante dare un contributo alla società che raggiungere i miei traguardi personali	40.28	12.59	.022	-.661
PSM49_La maggior parte dei programmi di assistenza sociale sono troppo importanti per farne a meno	52.09	12.12	-.786	.033
PSM50_Gran parte di quello che faccio è per una causa più grande di me	173.95	29.04	-.039	-.534
PSM51_Le persone possono parlare di interesse pubblico, ma in realtà si preoccupano solo dei propri interessi	151.11	27.13	.780	-.118
PSM52_Politica è una parola sporca	0.47	0.23	-.898	-.195
PSM53_Guardare le persone trarre beneficio dai programmi pubblici che appoggio mi dà molta soddisfazione	54.08	11.84	-.899	-.040
PSM54_Servire i cittadini mi farebbe stare bene anche se nessuno mi pagasse per questo	41.04	13.99	-.092	-.781
PSM55_Trovo interessante condividere con altri la mia visione sulla politica pubblica	21.32	10.56	.000	-1.111
PSM56_Ci sono pochi programmi pubblici che sostengo incondizionatamente	2.25	1.06	.599	-.174
PSM57_Per me, il patriottismo significa anche aver riguardo del benessere altrui	195.24	30.10	-.780	-.133
PSM58_Per me, servire il pubblico interesse è più importante che aiutare altre persone	170.56	26.19	.042	-.356
PSM59_Per me il motto "dovere, onore e Paese" evoca emozioni profonde	2.87	1.31	.018	-1.019
PSM60_Dobbiamo fare tutto ciò che è in nostro potere per affermare la vittoria della democrazia	199.52	26.61	-.759	-.146
PSM61_Quando i funzionari pubblici prestano giuramento credo che accettino doveri non previsti per gli altri cittadini	3.73	1.25	-.819	-.315
PSM62_Gli eventi quotidiani mi ricordano spesso quanto dipendiamo gli uni dagli altri	199.38	25.03	-.699	-.057

However, the re-calculation of the squared Mahalanobis distances showed that the multivariate normality was still not assumed. The last attempt to normalize the data was to remove

the *multivariate outliers*. Using the critical value⁴⁵ of the Mahalanobis distance (i.e., $\chi^2(32) = 62.5$, $p < .001$), 36 multivariate outliers were identified, being removed from the sample. However, the multivariate normality of the answers that were given by the remaining sample ($n=351$) was still not assumed ($M(D^2) = 3779.33$; $\rho * (\rho + 2) = 3480$). Therefore, the previous 36 outliers were reinserted in the sample. After the mathematical transformations for normalizing the data, we performed the EFA using the adjusted data. For results, see tables 12, 13 and 14.

From a methodological point of view, it would have been preferable to repeat an EFA using the *robust methods* (*Maximum Likelihood estimates* - MLM, Muthén & Muthén 1998 – 2007)⁴⁶. However it was not performed because the output of the EFA was considered solely in an explorative form. In this context, we judged sufficient to apply the *robust methods* only in the following *Confirmatory Factor Analysis* (CFA), obtaining a final factor model.

8.11 CONFIRMATORY FACTOR ANALYSIS

The appropriateness of the model, obtained from the EFA, was verified through a CFA that was performed on the data of the second sub-sample ($n=393$).

As we did in the case of EFA, the *missings* were replaced through the *multiple imputation method*. The *univariate normality* of the 34-item answers revealed that 17 items (i.e., 50%) presented skewness and kurtosis values that were not included between -1 and +1 (Table 17). In addition, the *multivariate normality* was not assumed ($M(D^2) = 1463.04$; $\rho * (\rho + 2) = 1224$). Therefore, the CFA was performed using the robust methods (*Maximum Likelihood Estimates* – MLM, Muthen&Muthen, 1998-2007). The software used was Mplus version 5.21.

⁴⁵ We used a standard technique for multivariate outlier detection. The Mahalanobis distances were compared to the critical value of the Chi-square distribution with degrees of freedom at a confidence level of $\alpha = .001$. The confidence level α signifies that the probability of failing to recognize a true outlier is less than .001. Data with Mahalanobis distances larger than this critical value (i.e., 62.5 in the case in question) are declared outliers (Barbaranelli, 2006).

⁴⁶ The robust algorithms of Muthén and Muthén allow to identify a factor structure even if the multivariate normality is not respected. To perform these algorithms, the *Mplus* software is necessary.

Table 17: Descriptive statistics of the answers (n=393) given to the questionnaire (raw data)

Item	M	SD	Skewness (Std. Error = .124)	Kurtosis (Std. Error = .247)
PSM01_ Il dovere pubblico di un funzionario dovrebbe sempre venire prima della fedeltà verso i suoi superiori	4.56	.834	-2.325	5.715
PSM02_ Pensare al benessere altrui è molto importante	4.45	.768	-1.655	3.326
PSM04_ Il comportamento etico dei funzionari pubblici è tanto importante quanto la loro competenza professionale	4.62	.866	-2.762	7.496
PSM07_ Sono spesso toccato dalla condizione dei bisognosi	4.16	.901	-.989	.571
PSM09_ Sono pronto a fare sacrifici per il bene della società	3.83	1.014	-.895	.453
PSM10_ Rimango raramente toccato dalla condizione dei bisognosi	4.02	1.202	-1.076	.091
PSM11_ Sono molto interessato alla politica	3.06	1.370	-.205	-1.175
PSM12_ Sono molto interessato a ciò che accade nel mio Paese	4.08	.982	-1.062	.663
PSM13_ Sono disposto a fare grandi sforzi per adempiere al mio dovere verso il mio Paese	3.72	1.026	-.864	.450
PSM14_ Sono disposto a rischiare perdite personali per aiutare la società	2.98	1.194	-.300	-1.000
PSM16_ Credo si debba anteporre il dovere civico a se stessi	3.75	1.114	-.736	-.119
PSM18_ Mi preoccupo moltissimo delle altre persone	3.73	.893	-.773	.742
PSM20_ Provo compassione per chi sta affrontando delle difficoltà	4.12	.969	-1.160	1.177
PSM21_ Ritengo che le persone debbano restituire alla società più di quanto ricevono	3.11	1.161	-.293	-.699
PSM23_ Mi sento obbligato a prendermi cura delle persone bisognose	3.56	.970	-.550	.059
PSM25_ Mi piace discutere di politica con gli altri	3.13	1.374	-.183	-1.172
PSM28_ Concordo con la promozione delle pari opportunità riconosciute dallo Stato	4.04	1.076	-1.048	.422
PSM29_ Rispetto i funzionari pubblici che sono in grado di trasformare una buona idea in una legge	4.48	.892	-2.083	4.399
PSM31_ Ritengo davvero importanti le pari opportunità per i cittadini	4.26	.966	-1.466	1.936
PSM35_ Appoggio incondizionatamente la maggior parte dei programmi pubblici	2.34	1.095	.311	-.861
PSM35_ Spero che il servizio pubblico contribuisca al benessere della società, anche se viene danneggiato il mio interesse	3.41	1.101	-.540	-.498
PSM36_ Sono favorevole ad un buon programma che migliori la vita dei bisognosi, anche se questo mi costa economicamente	3.71	1.041	-.846	.274
PSM37_ Preferisco vedere i funzionari pubblici fare ciò che è meglio per la collettività, anche se questo lede i miei interessi	3.70	1.116	-.846	.047
PSM38_ Se ciascun gruppo non partecipa alla prosperità della nostra società, tutti quanti stiamo peggio	4.36	.947	-1.559	1.897
PSM39_ Faccio fatica a interessarmi intensamente a ciò che accade nel mio Paese	3.42	1.281	-.239	-1.217
PSM40_ È sicuramente più importante per me fare buone azioni che stare bene economicamente	3.58	1.045	-.558	-.249
PSM41_ È fondamentale che il servizio pubblico provveda ai cittadini con regolarità e continuità	4.59	.781	-2.446	6.777
PSM46_ Non è importante che le persone rendano alla società più di quanto hanno ricevuto	2.66	1.182	.265	-.832
PSM54_ Servire i cittadini mi farebbe stare bene anche se nessuno mi pagasse per questo	3.39	1.222	-.559	-.622

PSM55_Trovo interessante condividere con altri la mia visione sulla politica pubblica	3.47	1.197	-.454	-.554
PSM56_Ci sono pochi programmi pubblici che sostengo incondizionatamente	2.23	1.103	.607	-.333
PSM58_Per me, servire il pubblico interesse è più importante che aiutare altre persone	2.98	1.089	-.199	-.682
PSM59_Per me il motto “dovere, onore e Paese” evoca emozioni profonde	2.85	1.322	.017	-1.062
PSM60_Dobbiamo fare tutto ciò che è in nostro potere per affermare la vittoria della democrazia	4.13	1.019	-1.128	.746

In order to evaluate the *Goodness of fit* of the model, we used the Chi-square test (χ^2). This provides an estimation of the fit of the model, verifying the distribution of the data in relation to a hypothetical data distribution based on a theoretical model that, in this study, was obtained from the EFA. Significant difference means non-correspondence between the data and theoretical model and, as a consequence, the theoretical model should be refused. However, sample size affects the χ^2 test, overestimating the lack of fit of the model when large samples are used (Bentler, 1990). For this reason, other indices are usually considered to evaluate the *Goodness of fit* of the model⁴⁷. In this case, we referred to the following indices:

- *Comparative Fit Index* (CFI; Bentler, 1990);
- *Tucker and Lewis Index* (TLI; Tucker & Lewis, 1973);
- *Root Mean Square Error Approximation* (RMSEA; Steiger & Lind, 1980);
- *Standardized Root Mean squared Residual* (SRMS; Bentler, 1995).

The software freely estimated the relations between factors. The analysis showed a partial adequacy of the model that was obtained from the EFA, despite the χ^2 value was statistically significant (Corbetta, 1993; Primi, 2002). The CFI (.853) and TLI (.838) indices were close to .90 (Bentler, 1990). The SRMR (.064) and RMSEA (.056) indices reveal an adequate *Goodness of fit* of the model⁴⁸. All factor loadings of indicator (items) resulted $>.30$ ⁴⁹, except those of the item PSM58 (.182), belonging to the Factor 5. The R^2 scores of single items suggested to remove⁵⁰ from the model the PSM01 (.119), PSM04 (.094) and, PSM58 (.033) items.

⁴⁷ It is possible, for instance, to evaluate the χ^2 and degrees of freedom ratio, which must be included between 2 and 5. Lower values - between 1 and 2 - indicate a good fit (Byrne, 2001).

⁴⁸ SRMR value is considered adequate if it is $\leq .08$ (Hu e Bentler, 1998). RMSEA value indicates a good fit if it is $\leq .05$ and an acceptable fit if it is included between .05 e .08 (Browne e Cudeck, 1992).

⁴⁹ It is worth reminding that .30 is the cutoff applied in the EFA.

⁵⁰ The criterion was to remove items with $R^2 < .20$. It is a restrictive criterion, but correct if it is compared to the Factor Loading index of the majority of the items. Indeed, the Factor Loading index established (i.e., .30) corresponds to $R^2 = .09$ (i.e., 9% of variance explained). A Factor Loading index of .40 corresponds to $R^2 = .16$ (i.e., 16% of variance explained). Therefore, an $R^2 < .20$ corresponds to a Factor Loading index of .44 or higher. Although the

After removing these three items, we performed a new CFA. The results demonstrated a better *Goodness of fit* of the new model [CFI=.868; TLI=.852; SRMR=.063; RMSEA=.059 (90%CI: .054 - .064)]. However, considering the low *Cronbach's alpha* value (.351) of the Factor 5, which was resulted from the EFA⁵¹, we decided to perform a new CFA removing from the model the entire Factor 5. The results of the new CFA demonstrated that the *Goodness of fit* was better in relation to the previous models [CFI=.893; TLI=.880; SRMR=.064; RMSEA=.056 (90%CI: .500 - .062)]. In conclusion, the model that presented the best *Goodness of Fit* was composed by 4 factors and 24 items (Table 18).

Table 18: Factors and items of the Italian PSM Questionnaire resulted from the CFA

FACTOR 1_SACRIFICIO PERSONALE (n=9; α =.846)	Factor Loading indices
PSM09 Sono pronto a fare sacrifici per il bene della società	0.626
PSM14 Sono disposto a rischiare perdite personali per aiutare la società	0.655
PSM16 Credo si debba anteporre il dovere civico a se stessi	0.555
PSM21 Ritengo che le persone debbano restituire alla società più di quanto ricevono	0.520
PSM35 Spero che il servizio pubblico contribuisca al benessere della società, anche se viene danneggiato il mio	0.724
PSM36 Sono favorevole ad un buon programma che migliori la vita dei bisognosi, anche se questo mi costa	0.749
PSM37 Preferisco vedere i funzionari pubblici fare ciò che è meglio per la collettività, anche se questo lede i miei	0.779
PSM40 È sicuramente più importante per me fare buone azioni che stare bene economicamente	0.505
PSM54 Servire i cittadini mi farebbe stare bene anche se nessuno mi pagasse per questo	0.474
<hr/>	
FACTOR 2_IMPEGNO VERSO I VALORI PUBBLICI (n=6; α =.793)	
PSM28 Concordo con la promozione delle pari opportunità riconosciute dallo Stato	0.740
PSM29 Rispetto i funzionari pubblici che sono in grado di trasformare una buona idea in una legge	0.647
PSM31 Ritengo davvero importanti le pari opportunità per i cittadini	0.739
PSM38 Se ciascun gruppo non partecipa alla prosperità della nostra società, tutti quanti stiamo peggio	0.548
PSM41 È fondamentale che il servizio pubblico provveda ai cittadini con regolarità e continuità	0.492
PSM60 Dobbiamo fare tutto ciò che è in nostro potere per affermare la vittoria della democrazia	0.581
<hr/>	
FACTOR 3_INTERESSE VERSO LA POLITICA (n=4; α =.842)	
PSM11 Sono molto interessato alla politica	0.795
PSM12 Sono molto interessato a ciò che accade nel mio Paese	0.522
PSM25 Mi piace discutere di politica con gli altri	0.934
PSM55 Trovo interessante condividere con altri la mia visione sulla politica pubblica	0.773
<hr/>	
FACTOR 4_SOLIDARIETA' (n=5; α =.745)	
PSM02 Pensare al benessere altrui è molto importante	0.442
PSM07 Sono spesso toccato dalla condizione dei bisognosi	0.726
PSM18 Mi preoccupa moltissimo delle altre persone	0.689
PSM20 Provo compassione per chi sta affrontando delle difficoltà	0.489
PSM23 Mi sento obbligato a prendermi cura delle persone bisognose	0.713

*p<.05; **p<.001

criterion applied to the Factor loading index was to consider significant all the loadings higher than .30 - thus removing only items with R2 <.09 - in this case we preferred to apply a stiffer criterion (i.e., R2 <.20) since the number of items with less of 20% of variance explained was exiguous.

⁵¹ Of note, the Cronbach's alpha value of the Factor 5 composed by three items instead of four (i.e., removing the item PSM58 as a consequence of the CFA) was slightly higher. However it was still low when compared with the Cronbach's alpha values of the other factors resulted after having performed the CFA (see Table 18).

8.12 REPETITION OF THE CONFIRMATORY FACTOR ANALYSIS ON THE TOTAL SAMPLE

The *EFA*, performed through the *Principal Axis Factoring* (PAF) on the first sub-sample (n=387), revealed a five-factor model. The *CFA*, performed through the *Maximum Likelihood Estimates* method (MLM; Muthen & Muthen, 1998-2007) on the second sub-sample (n=393), removed two items (i.e., PSM01; PSM04) and an entire Factor (i.e., “Dovere Civico”) from the model. This means that the CFA produced a modification of the model that was previously identified by the EFA. For this reason, we eventually performed a CFA using all respondents (n=780) to verify if the new model fit adequately in the total sample. The *Goodness of Fit* of the model tested on the total sample resulted better in relation to all other versions (Table 19). The final model, based on the total sample, is shown in Appendix 4.

Table 19: Comparison of the indexes of fit for tested models

Model	N	χ^2	df	χ^2/df	TLI	CFI	SRMR	RMSEA	90% C.I. (min-max)
5 Factor – 30 items	393	889.62***	395	2.25	.838	.853	.064	.056	.052 - .062
5 Factor – 27 items	393	746.09***	314	2.37	.852	.868	.063	.059	.054 - .064
4 Factor – 24 items	393	550.66***	246	2.24	.880	.893	.064	.056	.050 - .062
4 Factor – 24 items	780	776.68***	276	2.81	.881	.894	.054	.053	.049 - .056

*** p<.001

8.13 DEFINING THE CRITERION FOR THE RELIABILITY CHECK OF THE SUBJECT’S ANSWERS IN THE FINAL QUESTIONNAIRE

The final version of the *Italian PSM Questionnaire* contains items to verify the reliability of the subject’s answers. The rationales to define the criterion, which considers a respondent as unreliable, follow below.

The preliminary version of the Italian PSM Questionnaire – composed by 62 Items - contained four pairs of opposite items (i.e., items having opposite moral value - see Table 20).

Table 20: Pairs of opposite items contained in the preliminary version of the Italian PSM Questionnaire

	Items A	Items B
First pair	PSM07_Sono spesso toccato dalla condizione dei bisognosi	PSM10_Rimango raramente toccato dalla condizione dei bisognosi
Second pair	PSM12_Sono molto interessato a ciò che accade nel mio Paese	PSM39_Faccio fatica a interessarmi intensamente a ciò che accade nel mio Paese
Third pair	PSM21_Ritengo che le persone debbano restituire alla società più di quanto ricevono	PSM46_Non è importante che le persone rendano alla società più di quanto hanno ricevuto
Fourth pair	PSM34_Appoggio incondizionatamente la maggior parte dei programmi pubblici	PSM56_Ci sono pochi programmi pubblici che sostengo incondizionatamente

As explained in the Paragraph 8.9, for each pair of items the second of the two items was not included in the Factor Analysis. As a result of the EFA, the first item of each pair (i.e., Items A shown in Table 20) were originally belonging to four different dimensions of the PSM (i.e., PSM07: *Compassion*; PSM12: *Attraction to Public Making*; PSM21: *Self-Sacrifice*; PSM34: *Civic Duty*). However, the CFA entirely eliminated Factor 5 “Dovere Civico”. Therefore, the fourth pair is not usable for the purpose of the *reliability check* as one of the two items has been removed from the questionnaire. At the first attempt to define a criterion, we calculated a delta for each pair for the other three pairs of items, subtracting the score of the item B from the score of the item A. Each delta was squared to eliminate eventual negative signs. At this point, each subject had 3 delta values, one per each pair of items. Using the mean and standard deviation (SD) of the delta from the entire sample, we converted every delta in Z score. Subjects with delta out the 95% confident interval (i.e., $\pm 2SD$) were classified as unreliable. The frequencies of the reliable and unreliable delta were calculated. We used the delta values corresponding to +2SD and -2SD as cutoffs for this procedure and the frequencies of subjects identified as unreliable were summed (Table 21, in grey).

Table 21: Calculated parameters for each pair of opposite items (highlighted are the z scores greater than two standard deviations)

Pair of items	Δ	Sqrt(Δ)	Z score	Frequency	%
PSM07 e PSM10	0	0	-0.43	454	58.3
	1	1	-0.08	223	28.6
	4	2	.97	63	8.1
	9	3	2.72	21	2.6
	16	4	5.16	18	2.4
PSM12 e PSM39	0	0	-0.65	320	41.0
	1	1	-0.33	243	31.2
	4	2	.62	137	17.6
	9	3	2.20	68	8.7
	16	4	4.42	12	1.5
PSM21 e PSM46	0	0	-0.78	219	28.1
	1	1	-0.57	209	26.8
	4	2	.05	191	24.5
	9	3	1.09	87	11.2
	16	4	2.5	73	9.4

However, this first criterion resulted excessively severe, which would produce an excessive number of respondents that would be considered unreliable. For example, regarding the normative sample data, 10.2% of respondents were considered unreliable in the second pair of items (i.e.,

PSM12 and PSM39) and 9.4% of respondents were considered unreliable in the third pair (i.e., PSM21 and PSM46). In short, this criterion resulted a total of 172 of the 780 respondents (i.e., 22%) being considered unreliable because in at least one of the three pairs of items they exceed the *cutoff* determined. Therefore, this criterion was considered unacceptable.

Consequently, in a second attempt to define the criterion, we chose a supplementary criterion that consisted in an average of the three deltas to determine whether the respondent produces reliable answers. This strategy resulted in 7 of 780 respondents (i.e., 0.9%) of the normative sample presenting an average *Z* scores out of the confidence interval. Thus, this second criterion was considered acceptable to estimate the reliability/unreliability of the answers. However, our original purpose in this study was to provide an easy tool (i.e., the *Italian Public Service Motivation Questionnaire*) for the users. A method that uses a lot of mathematical procedures in the application was not coherent with the original purpose. Therefore, we tried to improve the criterion. We realized that the 7 respondents exceeded the identified cutoff in at least two pairs of items. This suggested us that exceeding the cutoff in at least 2 pairs of items could be a reasonable criterion to be used, independently from the fact that the average of the three *Z* scores did not result out of the confidence interval. Applying this criterion, we detected that 20 of 780 respondents overcame the cutoff at least in two pairs of items (i.e., 2.56%). This was an acceptable percentage to quantify the proportion of respondents who provide unreliable answers. Therefore, we suggest this criterion for evaluating the reliability of the answers, considering the cutoffs as described below:

- a) The first pair of items (i.e., PSM07 and PSM10): the difference between the first and the second item is ≥ 3 (cutoff in absolute value);
- b) The second pair of items (i.e., PSM12 and PSM39): the difference between the first and the second item is ≥ 3 (cutoff in absolute value);
- c) The third pair of items (i.e., PSM21 and PSM46): the difference between the first and the second item is equal 4 (cutoff in absolute value);

In short, when the respondent does not respect the cutoff in two of the three pairs of items, his/her test is to be considered unreliable.

9. FACTOR SCORE ANALYSES OF THE NORMATIVE SAMPLE

The calculation of factor scores was performed adding, for each factor, the scores of each respondent's answers to each item, weighting each score with the Factor Loadings obtained by CFA (see Table 18). In this way, each factor score was calculated through a weighted average of the scores of the items that composed the factor (Comrey & Lee, 2013). The factor scores considered in the following analyses are expressed in z scores (i.e., $M=0$; $DS=1$).

In order to perform the factor score analyses, the whole sample of respondents ($n=780$) was initially classified according to each category (i.e., Gender, Age, Level of education, Type of contract, Seniority of service, Position, Branch of public employment). Each category was then divided into sub-categories and frequency analysis was performed. When the frequency of a category was lower than 12 respondents (i.e., 1.5% of the sample), the category was merged with the contiguous one. When a category had not a similar category to be merged with, it was eliminated (see Table 22).

After frequency analysis, normality of the scores was verified, revealing that the scores of Factor 2 (i.e., "Impegno verso i valori pubblici") did not assume a parametric distribution. The scores of Factor 2 were therefore normalized⁵².

Subsequently, we performed an *Analysis of Variance* (ANOVA) *one way* to verify whether there are significant differences in the answers of different categories of respondents for each of the four factors resulting from the CFA. The following paragraphs will describe the results for each category.

⁵² The formula $(x+3)/(x+3)$ is the one that produced the better normalization.

Table 22: Frequency Analysis of the sample and indication of merged categories (in grey)

Category	Sub-category	N	(%)
Gender	Male	331	(42.4%)
	Female	447	(57.3%)
	Not responding	2	(0.3%)
Age	<25 y.o.	4	(0.4%)
	25-34 y.o.	31	(4.0%)
	35-49 y.o.	338	(43.3%)
	≥50 y.o.	407	(52.2%)
Level of education	Doctorate or Post-graduate degree	79	(10.1%)
	Master's degree	287	(36.8%)
	Bachelor's degree	37	(4.7%)
	High-school degree	316	(40.5%)
	Middle school certificate	57	(7.3%)
	Primary school certificate	1	(0.1%)
	No degree	3	(0.4%)
Type of contract	Fixed-term contract	59	(7.6%)
	Open-ended contract	708	(90.8%)
	Other	12	(1.5%)
	Not responding	1	(0.1%)
Seniority of service	<5 years	47	(6.0%)
	5-10 years	156	(20.0%)
	11-20 years	150	(19.2%)
	>20 years	427	(54.7%)
Position	Executive	27	(3.5%)
	Middle manager	151	(19.4%)
	Higher-level employee	213	(27.3%)
	Lower-level employee	372	(47.7%)
	Non-employee	8	(1.0%)
	Not responding	9	(1.2%)
Branch of public employment	Local Entities	734	(94.1%)
	Non-economic Public Entities	2	(0.3%)
	Health	8	(1.0%)
	Education	26	(3.3%)
	Law enforcement	10	(1.3%)

9.1 GENDER

Regarding gender, the four factors presented homogeneity of variance. The ANOVA revealed that the scores assigned to the factor “Sacrificio personale” was not affected by gender. On the other hand, gender has impact - even if with a small effect⁵³ - on the scores of the factors “Impegno verso i valori pubblici” [$F_{(1,776)}=6.47$, $p<.05$, $f=.091$], “Interesse verso la politica” [$F_{(1,776)}=13.73$, $p<.001$, $f=.13$] and “Solidarietà” [$F_{(1,776)}=16.45$, $p<.001$, $f=.15$]. The index *effect-size* Cohen’s *f* consistently demonstrated that males tend to have more interest in politics in relation to women, while women tend to be more sympathetic (see Table 23).

⁵³ The magnitude of effect is given by the *f* Cohen (1988), whose ranges read as follows: (.0-.10) = very small effect; (.10-.25) = small effect; (.25-.40) = average effect; (>.40) = large effect.

Table 23: Gender

<i>DV</i>	Male (n=331)		Famale (n=447)		$F_{(1,776)}$
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
SACRIFICIO PERSONALE	-.023	.65	.018	.57	.89(n.s.)
IMPEGNO VERSO I VALORI PUBBLICI_norm	9.13	4.00	9.85	3.79	6.47*
INTERESSE VERSO LA POLITICA	.15	.92	-.11	.98	13.73***
SOLIDARIETA'	-.05	.32	.038	.29	16.45***

*p<.05; ***p<.001

9.2 AGE

As for the age, three groups were created (i.e., “<34 y.o.”; “35-49 y.o.”; “≥ 50 y.o.”). Variance of “Sacrificio personale” factor was not homogeneous ($p=.004$) and, as a consequence, the Brown-Forsythe statistic was used for analysis since it is stronger than the F of Fisher. The ANOVA revealed a significant effect of age for the “Interesse verso la politica” [$F_{(2,777)} = 4.16$; $f=.10$; $P<.05$], “Sacrificio personale” [Brown-Forsythe $_{(2, 124.5)}=4.86$; $f=.11$; $P<.01$], “Solidarietà” [$F_{(2,777)}=4.93$; $f=.11$; $P<.01$] and “Impegno verso i valori pubblici” factors [$F_{(2,777)}=13.223$; $f=.184$; $P<.001$]. Therefore, age affects consistently the factor scores of these dimensions (see Table 24), although the values of effect size were small. The *post-hoc* analysis (i.e., Tamhane test⁵⁴) demonstrated that the average score of the “Sacrificio personale” factor was lower in the “<34 y.o.” group than in the “35-49 y.o.” group and in the “≥50 y.o.” group ($p<.05$). Average score in the “35-49 y.o.” and “≥50 y.o.” groups were not significantly different. For the other three factors we applied the Bonferroni statistic, since the homogeneity of the variances was confirmed. The average scores of the “Impegno verso i valori pubblici” factor were smaller in the “<34 y.o.” group than in the “35-49 y.o.” group ($p<.05$) and in the “≥50 y.o.” group ($p<.001$); the “35-49 y.o.” group presented a score smaller than “≥50 y.o.” group ($p=.01$). The “Interesse verso la politica” factor did not present significant difference between the three age groups. The average score of “Solidarietà” factor in the “<34 y.o.” group was significantly smaller than in the “35-49 y.o.” ($p<.05$) and “≥50 y.o.” groups ($p<.01$), without significant difference between the “35-49 y.o.” and “≥50 y.o.” groups

⁵⁴ In cases where there was no homogeneity of the variances we applied the Tamhane statistic, in the other cases we applied Bonferroni.

($p > 0.05$). Altogether, we can infer that younger people (i.e., “<34 y.o.”) demonstrated less motivation in relation to other groups for personal sacrifice, commitment to public interests and solidarity. On the other hand, the older people (i.e., “≥50 y.o.”) presented greater motivation in relation to other groups for commitment to public values.

Table 24: Age

DV	(<34 y.o.) n=35		(35-49 y.o.) n=338		(≥50 y.o.) n=407		dF _{between}	dF _{within}	F
	M	SD	M	SD	M	SD			
SACRIFICIO PERSONALE	-.314	.63	.022	.54	.008	.64	2	124.5	4.86! **
IMPEGNO VERSO I VALORI PUBBLICI_norm	7.330	3.54	9.064	3.88	10.129	3.81	2	777	13.22***
INTERESSE VERSO LA POLITICA	-.288	.99	-.072	.95	.085	.97	2	777	4.16*
SOLIDARIETA'	-.151	.32	-.003	.30	.016	.31	2	777	4.93**

* $p < .05$; ** $p < .01$; *** $p < .001$; ! Value calculated using the Brown-Forsythe statistic

9.3 LEVEL OF EDUCATION

Regarding to the level of education, five categories were created: “Doctorate or Post-graduate degree”, “Master’s degree”, “Bachelor’s degree”, “High-school degree”, “Middle school certificate and Primary school certificate”. The test of homogeneity revealed that the variance of the “Sacrificio personale” factor was not homogeneous for the five categories ($p = .02$). The ANOVA revealed that the “Sacrificio personale” factor differs significantly between groups [Brown-Forsythe ($F_{(4, 306.7)} = 2.42$; $f = .11$; $p < .05$)]. However, the effect size was very small and the *post-hoc* analysis (i.e., Tamhane test) revealed no significant differences between the five categories (e.g., “Doctorate or Post-graduate degree” Vs “Master’s degree”, “Doctorate or Post-graduate degree” Vs “Bachelor’s degree”). As a consequence, the independent variable “Level of Education” does not discriminate differences between responders.

Table 25: Level of education

DV	Doctorate or Post-graduate degree n=79		Master's degree n=287		Bachelor's degree n=37		High-school degree n=316		Middle school and Primary school certificate n=58		dF _{between}	dF _{within}	F
	M	SD	M	SD	M	SD	M	SD	M	SD			
SACRIFICIO PERSONALE	.083	.53	.062	.56	-.084	.58	-.038	.65	-.126	.62	4	306.7	2.42!*
IMPEGNO VERSO I VALORI PUBBLICI_norm	9.51	3.6	9.51	3.9	9.39	3.5	9.63	4.0	9.39	3.9	4	772	.08(n.s.)
INTERESSE VERSO LA POLITICA	.020	.98	.072	.96	.017	.91	-.043	.97	-.183	.95	4	772	1.09(n.s.)
SOLIDARIETA'	-.007	.32	.007	.30	-.033	.28	-.007	.32	.041	.27	4	772	.46(n.s.)

* $p < .05$; !Value calculated using the Brown-Forsythe statistic

9.4 TYPE OF CONTRACT

Regarding the type of contract, homogeneity of variances was assumed for two categories: “Fixed-term contract” and “Open-ended contract”. The ANOVA revealed non-significant difference between the scores of the two categories for the four factors (Table 26). Therefore, the type of contract does not affect any of the four PSM factors.

Table 26: Type of contract

DV	Fixed-term contract n=59		Open-ended contract n=708		F _(1, 765)
	M	SD	M	SD	
SACRIFICIO PERSONALE	-.034	.63	.002	.60	.20(n.s.)
IMPEGNO VERSO I VALORI PUBBLICI_norm	9.20	3.8	9.57	3.9	.49(n.s.)
INTERESSE VERSO LA POLITICA	.142	1.04	.011	.96	1.36(n.s.)
SOLIDARIETA'	.004	.32	-.002	.30	.02(n.s.)

9.5 SENIORITY OF SERVICE

Variance was homogeneous for the four factors. The ANOVA revealed a significant difference between the score of seniority of service category (i.e., “<5 years”, “5-10 years”, “11-20 years”, “>20 years”) when considering the “Impegno verso i valori pubblici” factor [$F_{(3,776)}=3.91$, $p<.01$, $f=.12$; $p<.05$]. The *post-hoc* analysis (i.e., Bonferroni test) demonstrated that only the average scores of the “5-10 years” group were significantly lower than in the “> 20 years” group ($p<.05$). Therefore, based on the answers given from the sample, seniority of service does not

appear to affect PSM dimensions, except for the “Impegno verso i valori pubblici” dimension. However, the effect on this dimension was very small.

Table 27: Seniority of service

DV	<5 years n=47		5-10 years n=156		11-20 years n=150		>20 years n=427		F _(3, 776)
	M	SD	M	SD	M	SD	M	SD	
SACRIFICIO PERSONALE	-0.25	.59	-0.33	.58	.051	.57	-.003	.63	.55(n.s.)
IMPEGNO VERSO I VALORI PUBBLICI_norm	8.83	3.7	8.80	3.9	9.42	3.9	9.93	3.9	3.91**
INTERESSE VERSO LA POLITICA	-.107	1.04	-.071	.95	.001	.92	.037	.98	.69(n.s.)
SOLIDARIETA'	-.024	.31	-.050	.31	.016	.31	.015	.30	2.03(n.s.)

** p<.01

9.6 PROFESSIONAL POSITION

The “Professional Position” category consisted of four sub-categories (i.e., Executive, Middle manager, Higher-level employee, Lower-level employee). The test of homogeneity of variance showed that variance in the “Sacrificio personale” factor was not homogeneous ($p=.03$). The ANOVA revealed a significant difference for the “Impegno verso i valori pubblici” [$F_{(3,759)}=3.78, f=.12; p<.05$] and “Interesse verso la politica” factors [$F_{(3,759)}=3.66, f=.08; p<.05$] (see Table 28). The *post-hoc* analysis (i.e., Bonferroni test) revealed that the sub-categories “Middle manager” and “Lower-level employee” of the “Impegno verso i valori pubblici” category were significantly different: the “Middle manager” sub-category scores were greater than the “Lower-level employee” sub-category scores ($p<.05$). Other sub-categories did not present significant differences. Regarding the “Interesse verso la politica” factor, the “Middle manager” sub-category presented scores significantly greater than the “Higher-level employee” ($p<.05$) and “Lower-level employee” ($p=.01$) categories. In addition, the “Higher-level employee” sub-category presented scores smaller than the “Lower-level employee” sub-category ($p<.05$). In the “Executive” sub-category and all other sub-categories significant differences were not found.

Table 28: Professional position

DV	Executive n=27		Middle manager n=151		Higher-level n=213		Lower-level n=372		dF _{between}	dF _{within}	F
	M	SD	M	SD	M	SD	M	SD			
SACRIFICIO PERSONALE	-.083	.70	.131	.56	-.012	.66	-.028	.58	3	150.06	2.58!(n.s.)
IMPEGNO VERSO I VALORI PUBBLICI_norm	8.29	4.2	10.21	3.7	9.83	3.9	9.20	3.9	3	759	3.78*
INTERESSE VERSO LA POLITICA	.014	.83	.235	.99	-.053	.94	-.057	.96	3	759	3.66*
SOLIDARIETA'	-.099	.30	.033	.28	-.006	.32	-.002	.30	3	759	1.60(n.s.)

* p<.05; !Value calculated using the Brown-Forsythe statistic

9.7 BRANCH OF PUBLIC EMPLOYMENT

Concerning the branch of employment, 94.1% of the sample was composed of people who work for a local entity. All others have been merged in a single group called “Other” (5.9%). The two categories presented homogeneity of variances. The ANOVA did not reveal significant differences (Table 29).

Table 29: Branch of public employment

DV	Local Entities (n=734)		Other (n=46)		F _(1,778)
	M	SD	M	SD	
SACRIFICIO PERSONALE	.004	.60	-.064	.57	.55(n.s.)
IMPEGNO VERSO I VALORI PUBBLICI_norm	9.54	3.9	0.46	3.6	.02(n.s.)
INTERESSE VERSO LA POLITICA	.004	.97	-.061	.87	.20(n.s.)
SOLIDARIETA'	.002	.30	-.040	.30	.83(n.s.)

DISCUSSION AND CONCLUSION

The aim of this research was to construct a questionnaire to measure the Public Service Motivation in the Italian public context. My original hypothesis was that a new PSM questionnaire could be constructed using a cumulative collection of the reflective indicators appeared in the most relevant literature. Indeed, the collected reflective indicators could represent a solid base in which to perform an acknowledged procedure of translation and a strong method for statistical analysis. The outcome of the present research is the *Italian PSM Questionnaire*, which is a measuring tool that fits well on the sample used in this research and after a stronger validation could be used for the Italian public sector.

The need to improve the motivation of the public employees - manifested by the several public administrations - is what strongly pushed us to undertake this research. We thought that in order to manage the motivations of employees, the first step should be to have a tool able to measure their motivations. Although several questionnaires to measure PSM were proposed by authors in the literature, no one was specifically designed for the Italian public sector. Consequently, the idea to create a measuring instrument designed for Italian public sector context was born.

The review of the PSM scientific literature allowed us to focus extensively on the object of our research and to understand the development of the PSM construct and the differences between the various researchers from different nations. Moreover, this made us conscious of which authors had a major influence at the international level on measuring the PSM construct. Starting from their studies, we collected a large list of PSM reflective indicators and we submitted them to a *translation-back translation* procedure and to a *pilot study* grounded on a sample composed by 216 public employees. Subsequently, we administered the questionnaire to a sample of 780 public employees and through a series of factorial analysis we obtained the final version of the *Italian PSM Questionnaire*, which is the first test to measure the motivations of employees in the Italian Public Sector (Appendix 3).

Concerning the sample, factor score analyses revealed no differences of PSM dimensions regarding the level of education, type of contract and branch of public employment, while differences regarding gender, age, seniority of service and professional position emerged.

As for gender, our findings showed that males are more interested in politics than women, while women are more sympathetic. These findings corroborate with previous studies: Perry (1997) found higher levels of *Attraction to Public Making* in males than females and higher levels of

Compassion in females than males. Camilleri (2007) investigated more than three thousand public employees in the administrative section of the Ministry of the Government of Malta, partially confirming the results of Perry. In fact, the author demonstrated that females have a greater tendency toward *Compassion* than males, but did not find differences in the other dimensions. Subsequent studies have supported the association between the *Compassion* dimension and the female gender. In a study evaluating the Swiss public context, Giauque, Ritz, Varone and Anderfuhren-Biget (2009) confirmed that females actually have higher levels of *Compassion* than males, while males have higher levels in other dimensions (i.e., *Attraction to Public Making*, *Civic Duty*, *Self-Sacrifice*). Additionally, a research conducted in Taiwan showed higher levels of *Compassion* and *Self-Sacrifice* in females than males, and higher levels of *Attraction to Public Making* in males than females (Chyi-Lu Jang, 2012). In brief, all the studies that we have consulted indicate that females have a greater *compassion* than males, which is theoretically explainable by the fact that females have a greater capacity for empathy (Baron-Cohen, 2003) and the emotional reasons have always been formulated as female (Stivers, 2000).

As for age, we found that younger public employees (i.e., <34 y.o.) have less motivation for personal sacrifice, commitment to public interest and solidarity when compared with the other ranges of age. Older public employees (i.e., ≥50 y.o.) are instead more motivated for commitment to public values. These results are consistent with previous studies (Pandey & Stazyk, 2008; Perry, 1997) suggesting that individuals can become more motivated to public service over the years. Moreover, according to Giauque et al. (2010), older people seem to be more involved in the public politics and have greater compassion and self-sacrifice. Other studies confirm these results: according to Chiy-Lu (2012), the over 40 y.o. have higher score in relation to the under 40 y.o. on three of the four dimensions of the PSM: *Compassion*, *Attraction to Public Making* and *Civic Duty*.

As for seniority of service, differences were found only for a PSM dimension, which is related with commitment toward public values. However, the effect was very small and was observed only comparing the range “5-10 years” with “>20 years” of seniority. In literature, information about the relationship between seniority of service and dimensions of PSM is scarce and non-consensual: Perry (1997) found a decrease in the PSM levels with an increase in seniority of service; Giauque et al. (2009) showed opposite results, demonstrating that the increase in the seniority of service progressively increase the level of all the dimensions of the PSM.

As for professional position, our data suggests that the professional qualification affects the PSM. In particular, the middle managers seem to have a greater commitment to public values and interest toward politics. This affirmative could be due to the fact that these positions are usually

assigned to the employees from their organizations, while all other positions (i.e., Executive, Higher-level employee, Lower-level employee) are acquired through winning public competitions.

It must be highlighted that the construction of the questionnaire was not free of limitations. The most obvious limitation concerns the geographical area of the sample. In fact, the about 1000 public employees respondents belonged to only one of the 21 regions of Italy (i.e., Friuli Venezia-Giulia). Moreover, it is a region governed by a special statute; therefore it is not to be excluded that the motivations of its public employees may differ in respect to the public employees of the rest of Italy. Unfortunately, it was not possible to take a representative sample of the whole Italy. This limitation was due to a lack of willingness from public administrations with staff located throughout the Country, which would have represented the ideal base in which to perform this study. Subsequent validation of the present questionnaire should be grounded in a sample taken at a national scale and not at a regional level, verifying more consistently the goodness of fit of the model that we have proposed by the present study. The composition of the sample was another limitation, in fact the 94.1% of respondents were the employees working in local public institutions, although the ANOVA showed no significant differences of PSM between the employees working in local public institutions and employees working in other types of public administrations.

Finally, but not less important, a limitation concerns the partial validation that the *Italian PSM Questionnaire* has received in this first phase of its development. In order to be fully validated, the *Italian PSM Questionnaire* should overcome also one or more of the following processes: *convergent validity*, *discriminant validity*, *concurrent validity*. As for convergent validity, the limitation appears to be difficult to overcome because of the scarce existence in literature of questionnaires for measuring the PSM in the Italian context. As for discriminant validity, subsequent validation of the present questionnaire should take into account concepts similar to PSM. In fact, the purpose of discriminant validity is to show that a construct is not related with some other similar concepts. The process that appears to be most practicable in the near future is the concurrent validity, which will focus on the power of the present questionnaire to predict outcomes on another test or some outcome variables, such as satisfaction, productivity, loyalty and commitment (see Chapter 6).

Beyond these limitations, which have been illustrated for scientific accuracy, the aim of this study was to create an easy-to-use questionnaire for the measurement of the PSM in the Italian public context. Before starting the research, debates with public service managers resulted in the need to create a questionnaire easy to apply and effectively usable in both the internal and external public competition procedures promoted by the public administrations. As a consequence, our

expectation was that the questionnaire would be composed by three or four dimensions, each of which represented by a number of items ranging from 4 to 6, such that the questionnaire comprised in total about 20-25 items. These expectations were satisfied by the tool that we have constructed. In fact, the *Italian PSM Questionnaire* is composed by 24 items - in addition with 3 items to check the reliability of the respondents - which describe four PSM dimensions (i.e., “Sacrificio Personale” (*Self-Sacrifice*), “Impegno verso i Valori Pubblici” (*Commitment to Public Values*), “Interesse verso la Politica” (*Interest towards politics*), “Solidarietà” (*Solidarity*)).

My expectation is that the *Italian PSM Questionnaire* would receive a stronger validation and, afterwards, would be acknowledged by the Public Administration and implemented in the activities of hiring, retention and development of the human resources. Its use within the open recruitment would allow evaluators to enrich the information pattern of each applicant and thus to identify the most suitable applicants for the role of *public servant*. In fact, although Perry and Wise (1990: p.368) initially postulated that PSM is “*an individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations*”, further researches clarified that a person can also satisfy its PSM outside of the public sector (Andersen & Pedersen, 2012; Brewer & Selden, 1998). As a consequence, the Public Administration can often miss the opportunity to recruit the people that are fully adequate for its institutional objectives. This occurs for three fundamental reasons. In the first place, the open recruitment is excessively focused on evaluating the technical-specialized knowledge and are incapable of taking in consideration the individual motivations for the public service. Secondly, the choice of work by individuals with high PSM is not always oriented to perform work on behalf of the public interest and, thus, their choice is not always directed consciously toward a public institution. In fact, there are various collective interest services which are provided by private entities (e.g., Health Services, Education) and, therefore, they can attract people who have a high PSM. The third reason lies on the fact that the public administrations often promote open recruitment giving different messages with respect to the values of the public service. In particular, these messages regard career or wage. This inevitably attracts subjects more oriented toward this individual benefit instead of those more oriented toward the values of the public interest. However, public institutions are in a better position than private companies to provide individuals with the opportunity to satisfy their motivation serving the collective interest, as consistently illustrated by Perry (1996). Moreover, a series of organizational and institutional features make public institutions the *value-oriented* organizations. This means that in these organizations the values play an important role in the managerial processes. The *Italian PSM Questionnaire* can provide a specific and concrete service for these processes, especially for

those related to the training, management, and development of human resources. In this way, the possibility to measure the motivations of employees is a prerogative that should be managed with great attention. Indeed, the PSM can represent a crucial variable for the needs of self-actualization of the public employees. According to Maslow's hierarchy of needs (1954), to meet the needs of self-actualization, first of all people have to satisfy the underlying needs (e.g., physiological needs of safety, belongingness, esteem). As a consequence, the public employees' motivation to work for the collective interest could decline if the organization does not guarantee them the satisfaction of basic needs (e.g., certainty of professionalization, growth, meritocracy, social recognition, remuneration fairness).

Concerning the data collected in this research, a speculation can be introduced. Considering that the sentences of the questionnaire described - with various facets - a willingness to work for the collective interest, the trend of the answers can provide considerable suggestions. In fact, the lack of multivariate normality and the impossibility to normalize the data through various mathematical procedures demonstrate that data were characterized by *ceiling effect* (Koedel & Betts, 2010). In other words, the subjects tended to predominantly agree with the sentences of the questionnaire. Moreover, in the pilot study 11 items obtained more than 90% of the responses at the level of "Partly agree" and "Totally agree". As a consequence, two explanations can be proposed:

1. data of both pilot study and normative sample were affected by social desirability, inasmuch as it created the ceiling effect;
2. public employees are very motivated to act for the collective interest.

As for point 1., social desirability can have affected our results. However, we included some controls over social desirability to minimise this effect. As Perry (1996), we presented the questionnaire to the subjects as a general opinion survey. Moreover, we guaranteed the subjects that they would stay anonymous in order to stimulate the maximum sincerity in their answers.

Since the social desirability is the degree to which individuals describe themselves in favorable and socially desirable terms generally in order to achieve the approval of others (Crowne & Marlowe, 1964), there is no reason to think that the respondents of the present research looked for approval of others by answering our questionnaire. Indeed, the questionnaire was anonymous, no type of feedback was announced and subjects did not know the aim of the present research. In addition, they were free to answer or refuse to answer it and fully aware that their answers would be aggregated. Moreover, their participation was not related to any organizational provision.

However, beside all the measures undertaken we cannot assume resolutely that social desirability did not affect the answers of our respondents. As a consequence, we recommend

additional measures of control of social desirability to be used in the future application of the Italian PSM Questionnaire, due to the tendency of giving high scores in the present study. In particular, if the questionnaire will be addressed to make decisions in an organizational context it could play relevant and actual implications on employees (e.g., promotions, change of tasks, undertaking of the responsibility); therefore a social desirability assessment should be implemented.

As for point 2., what emerges from our data is that public employees are generally highly motivated to the public service. Although this second explanation may be contrary to general public employee stereotypes, it is consistent with previous studies (Baldwin 1984; Emmert & Taher 1992 ; Posner & Schmidt 1982; Rainey 1979, 1983, Ritz, 2009, Wright, 2007).

In conclusion, the ability to attract the subjects with a higher PSM can be defined as a "genetic potential" of the Public Administration. Consequently, the Public Administration should pay attention to not waste its motivational assets. After having reported high levels of motivation of over than 13.000 Switzerland federal employees, Ritz (2009) declared that "*a key challenge for politicians and administrators is [...] not to destroy the distinctive motivation of public employees*". In other words, to motivate people it is first and foremost necessary to take care of not demotivating them. The cases of lack of motivation often arise from organizational conditions in which the public employees have to operate. Absence of clarity of roles, poor vocational training, ambiguous organizational mission, low levels of accountability, poor internal communications, and organizational pathologies (De Vries, 1995) can jeopardize a precious asset for the Public Administration: the Public Service Motivation.

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APPENDIX 1 - TRANSLATION OF THE 81 ITEMS COLLECTED FROM LITERATURE

- (APM) Ethical behavior of public officials is as important as competence
TRAD Il comportamento etico dei funzionari pubblici è tanto importante quanto la loro competenza professionale
- (APM) I don't care much for politicians
TRAD Non do molta importanza ai politici
- (APM) I respect public officials who can turn a good idea in to law
TRAD Rispetto i funzionari pubblici che sono in grado di trasformare una buona idea in una legge
- (APM) Politics is a dirty word
TRAD Politica è una parola sporca
- (APM) The give and take of public policy making doesn't appeal to me
TRAD Il "dare-avere" della politica pubblica non mi piace
- (APM) I am interested in making public programs that are beneficial for my country or the community I belong to
TRAD Sono interessato a realizzare progetti pubblici che portino beneficio al il mio Paese o alla comunità cui appartengo
- (APM) Seeing people get benefits from the public program I have been deeply involved in brings me a great deal of satisfaction
TRAD Guardare le persone trarre beneficio da progetti pubblici che appoggio mi da molta soddisfazione
- (APM) Sharing my views on public policies with others is attractive to me
TRAD Trovo interessante condividere con altri la mia visione sulla politica pubblica
- (APM) I am very interested in politics
TRAD Sono molto interessato alla politica
- (APM) I am very interested in what is happening in my country
TRAD Sono molto interessato a ciò che accade nel mio Paese
- (APS) I am satisfied when seeing people get benefits from the public programs I was involved in
TRAD Sono soddisfatto quando vedo le persone trarre beneficio da progetti pubblici in cui sono coinvolto
- (APS) I like to initiate actions to help out my community
TRAD Mi piace avviare azioni che aiutino la mia comunità
- (APS) I think the governmental activities contribute to our welfare
TRAD Credo che le attività del governo contribuiscano al nostro benessere
- (APS) I admire people who initiate or are involved in activities to aid my community
TRAD Ammiro le persone che danno avvio o sono coinvolte in attività che aiutano la mia comunità
- (APS) It is important for me to contribute to the common good
TRAD Per me è importante contribuire al bene comune
- (APS) It is important to contribute to activities that tackle social problems
TRAD È importante contribuire alle attività che affrontano problemi sociali
- (APS) Meaningful public service is very important to me
TRAD Per me un servizio pubblico efficiente è molto importante
- (APS) I like to discuss political subjects with others
TRAD Mi piace discutere di politica con gli altri
- (APS) It is important that public service provide useful goods
TRAD È importante che il servizio pubblico fornisca beni utili
- (APS) It is important to unselfishly contribute to the common good
TRAD È importante contribuire in modo disinteressato al bene comune
- (CD) I am willing to go great lengths to fulfill my obligations to my country
TRAD Sono disposto a fare grandi sforzi per adempiere al mio dovere verso il mio Paese
- (CD) I believe everyone has a moral commitment to civic affairs no matter how busy they are
TRAD Credo che tutti abbiamo un impegno morale verso le questioni civiche, indipendentemente da quanto siamo indaffarati
- (CD) I have an obligation to look after those less well off
TRAD Mi sento obbligato a prendermi cura delle persone bisognose
- (CD) It is my responsibility to help solve problems arising from interdependencies among people
TRAD È una mia responsabilità aiutare a risolvere problemi che derivano dall'interdipendenza tra le persone
- (CD) Public service is one of the highest forms of citizenship
TRAD Il servizio alla comunità è una delle più alte forme di cittadinanza
- (CD) To me, the phrase "duty, honor, and country" stirs deeply felt emotions
TRAD Per me il motto "dovere, onore e paese" evoca emozioni profonde
- (CD) When public officials take an oath of office, I believe they accept obligations not expected of other citizens
TRAD Quando i funzionari pubblici prestano giuramento credo che accettino doveri non previsti per gli altri cittadini
- (COM) I am rarely moved by the plight of the underprivileged
TRAD Rimango raramente toccato dalla condizione dei bisognosi
- (COM) I seldom think about the welfare of the people whom I don't know personally
-

TRAD Penso raramente al benessere delle persone che non conosco personalmente

(COM) Most social programs are too vital to do without
 TRAD La maggior parte dei programmi di assistenza sociale sono troppo importanti per farne a meno

(COM) There are few public programs that i wholeheartedly support
 TRAD Ci sono pochi programmi pubblici che sostengo incondizionatamente

(COM) To me, patriotism includes seeing to the welfare of others
 TRAD Per me, il patriottismo significa anche aver riguardo del benessere altrui

(COM) It is difficult for me to contain my feelings when I see people in distress
 TRAD Per me è difficile contenere le emozioni quando vedo gente bisognosa

(COM) I am often reminded by daily events how dependent we are on one another
 TRAD Gli eventi quotidiani mi ricordano spesso quanto dipendiamo gli uni dagli altri

(COM) I care very much about other people
 TRAD Mi preoccupo moltissimo delle altre persone

(COM) Considering the welfare of others is very important
 TRAD Pensare al benessere altrui è molto importante

(COM) I empathize with other people who face difficulties
 TRAD Mi sento empatico verso le persone che affrontano difficoltà

(COM) I feel sympathetic to the plight of the underprivileged
 TRAD Provo solidarietà verso le vicissitudini degli sfortunati

(COM) I get very upset when I see other people being treated unfairly
 TRAD Mi turba molto vedere altre persone esser trattate ingiustamente

(COM) I find it hard to be sympathetic toward starving people in foreign lands when there is so much trouble in our own country
 TRAD Trovo difficile essere solidale nei confronti delle persone affamate in terre straniere quando ci sono così tanti problemi nel nostro Paese

(COM) It is not really my problem if others are in trouble and need help
 TRAD Non è realmente un mio problema se gli altri sono in difficoltà e necessitano di aiuto

(COM) I am often moved by the plight of the underprivileged
 TRAD Sono spesso toccato dalla condizione dei bisognosi

(COM) I have compassion for people in need who are willing to take the first step to help themselves
 TRAD Ho compassione per le persone bisognose che sono disposte a fare il primo passo per aiutare se stesse

(COM) I wholeheartedly support most of public programs
 TRAD Appoggio incondizionatamente la maggior parte dei programmi pubblici

(COM) I wish that public service contributes to the welfare of the society, even if it harms my interest
 TRAD Spero che il servizio pubblico contribuisca al benessere della società, anche se viene danneggiato il mio interesse

(COM) I feel compassion for others in the difficulties they are facing
 TRAD Provo compassione per chi sta affrontando delle difficoltà

(CPI) An official's obligation to the public should always come before loyalty to superiors
 TRAD Il dovere pubblico di un funzionario dovrebbe sempre venire prima della fedeltà verso i suoi superiori

(CPI) I unselfishly contribute to my community
 TRAD Contribuisco in modo disinteressato alla mia comunità

(CPI) Is hard for me to get intensely interested in what is going in my country
 TRAD Faccio fatica a interessarmi intensamente a ciò che accade nel mio Paese

(CPI) People may talk about the public interest, but they are really concerned only about their self-interest
 TRAD Le persone possono parlare di interesse pubblico, ma in realtà si preoccupano solo dei propri interessi

(CPI) I consider public service my civic duty
 TRAD Ritengo che il servizio alla collettività sia un mio dovere civico

(CPI) I would prefer seeing public officials do what is the best for the whole community, even if it harmed my interests
 TRAD Preferisco vedere i funzionari pubblici fare ciò che è meglio per la collettività, anche se questo lede i miei interessi

(CPI) To me, serving the public interest is more important than helping other people
 TRAD Per me, servire il pubblico interesse è più importante che aiutare altre persone

(CPI) I recognize myself with the mission of protection of liberties and rights endorsed by the nation-state
 TRAD Mi identifico con la missione di tutela delle libertà e dei diritti riconosciuti dallo Stato

(CPV) It is important that public servants account for all the costs/expenses they make
 TRAD È importante che i dipendenti pubblici tengano conto di tutti i costi e di tutte le spese che generano

(CPV) We have to do everything in our power to pursue the goal of democracy
 TRAD Dobbiamo fare tutto ciò che è in nostro potere per affermare la vittoria della democrazia

(CPV) I think equal opportunities for citizens are very important
 TRAD Ritengo davvero importanti le pari opportunità per i cittadini

(CPV) It is fundamental that the interests of future generations are taken into account when developing public policies
 TRAD È fondamentale che gli interessi delle future generazioni siano tenuti in considerazione quando si sviluppano politiche pubbliche

(CPV) It is important that citizens can rely on the continuous provision of public services
TRAD È importante che i cittadini possano contare sull'offerta continua di servizi pubblici

(CPV) To act ethically is essential for public servants
TRAD Agire eticamente è fondamentale per gli addetti al servizio pubblico

(CPV) I recognize myself with the promotion of the equality of chances endorsed by the nation-state
TRAD Concordo con la promozione delle pari opportunità riconosciute dallo Stato

(CPV) It is fundamental that public service innovates to respond to the new needs of the citizens/clients
TRAD È fondamentale che il servizio pubblico si aggiorni per rispondere alle nuove esigenze dei cittadini

(CPV) It is fundamental that the public service provided to the citizen is regular and continuous
TRAD È fondamentale che il servizio pubblico provveda ai cittadini con regolarità e continuità

(CPV) The dignity and well-being of all should be the most important concerns in any society
TRAD La dignità ed il benessere di tutti dovrebbero interessare moltissimo qualsiasi società

(SJ) I am not afraid to go to bat for the right of others even if it means I will be ridiculed
TRAD Non ho paura di battermi per i diritti degli altri anche se questo significa mettersi in ridicolo

(SJ) I am willing to use every ounce of my energy to make the world a more just place
TRAD Sono disposto ad usare ogni briciola della mia energia per rendere il mondo un luogo più giusto

(SJ) I believe that there are many public causes worth championing
TRAD Credo ci siano molte cause pubbliche che valga la pena difendere

(SJ) I don't believe that government can do much to make society fairer
TRAD Non credo che il governo possa fare molto per rendere la società più giusta

(SJ) If any group does not share in the prosperity of our society, then we are worse off
TRAD Se ciascun gruppo non partecipa alla prosperità della nostra società, tutti quanti stiamo peggio

(SS) Doing well financially is definitely more important to me than doing good deeds
TRAD Per me è assolutamente più importante avere successo finanziario che fare buone azioni

(SS) I am one of those rare people who would risk personal loss to help someone else
TRAD Sono una di quelle poche persone che rischierebbero una perdita personale per aiutare qualcun altro

(SS) I think people should give back to society more than they get from it
TRAD Ritengo che le persone debbano restituire alla società più di quanto ricevono

(SS) Much of what I do is for a cause bigger than myself
TRAD Gran parte di quello che faccio è per una causa più grande di me

(SS) Serving citizens would give me a good feeling even if no one paid me for it
TRAD Servire i cittadini mi farebbe stare bene anche se nessuno mi pagasse per questo

(SS) Making a difference in society means more to me than personal achievements
TRAD Per me è più importante dare un contributo alla società che raggiungere i miei traguardi personali

(SS) I am prepared to make sacrifices for the good of society
TRAD Sono pronto a fare sacrifici per il bene della società

(SS) I am willing to risk personal loss to help society
TRAD Sono disposto a rischiare perdite personali per aiutare la società

(SS) I believe in putting civic duty before self
TRAD Credo si debba anteporre il dovere civico a se stessi

(SS) I would agree to a good plan to make a better life for the poor, even if it costs me money
TRAD Sono favorevole ad un buon programma che migliori la vita dei bisognosi, anche se questo mi costa economicamente

(SS) It is definitely more important to me to do good deeds, than doing well financially
TRAD È sicuramente più importante per me fare buone azioni che stare bene economicamente

(SS) It is not important that people give back to society more than they get from it
TRAD Non è importante che le persone rendano alla società più di quanto hanno ricevuto

APPENDIX 2 - PERSONAL INFORMATION FORM INCLUDED IN THE QUESTIONNAIRE

Sesso:

- [1] Uomo
- [2] Donna

Età:

- [1] inferiore ai 25 anni
- [2] da 25 a 34 anni
- [3] da 35 a 49 anni
- [4] oltre 50 anni

Titolo di studio:

- [1] Dottorato o specializzazione post-laurea (incluso Master Universitario)
- [2] Laurea magistrale, specialistica o Laurea “vecchio ordinamento”
- [3] Diploma universitario o Laurea triennale
- [4] Diploma di maturità
- [5] Licenza media inferiore o di avviamento professionale
- [6] Licenza elementare
- [7] Nessun titolo di studio

Tipo di contratto di lavoro:

- [1] A tempo determinato
- [2] A tempo indeterminato
- [3] Altro, specificare _____

Anzianità di servizio:

- [1] Meno di 5 anni
- [2] Da 5 a 10 anni
- [3] Da 11 a 20 anni
- [4] Oltre i 20 anni

Qualifica:

- [1] Dirigente
- [2] Quadro/Posizione Organizzativa
- [3] Personale di Terza Area
- [4] Personale di Seconda Area
- [5] Personale non dipendente (volontari, tirocinanti, stagisti, altro, specificare _____)

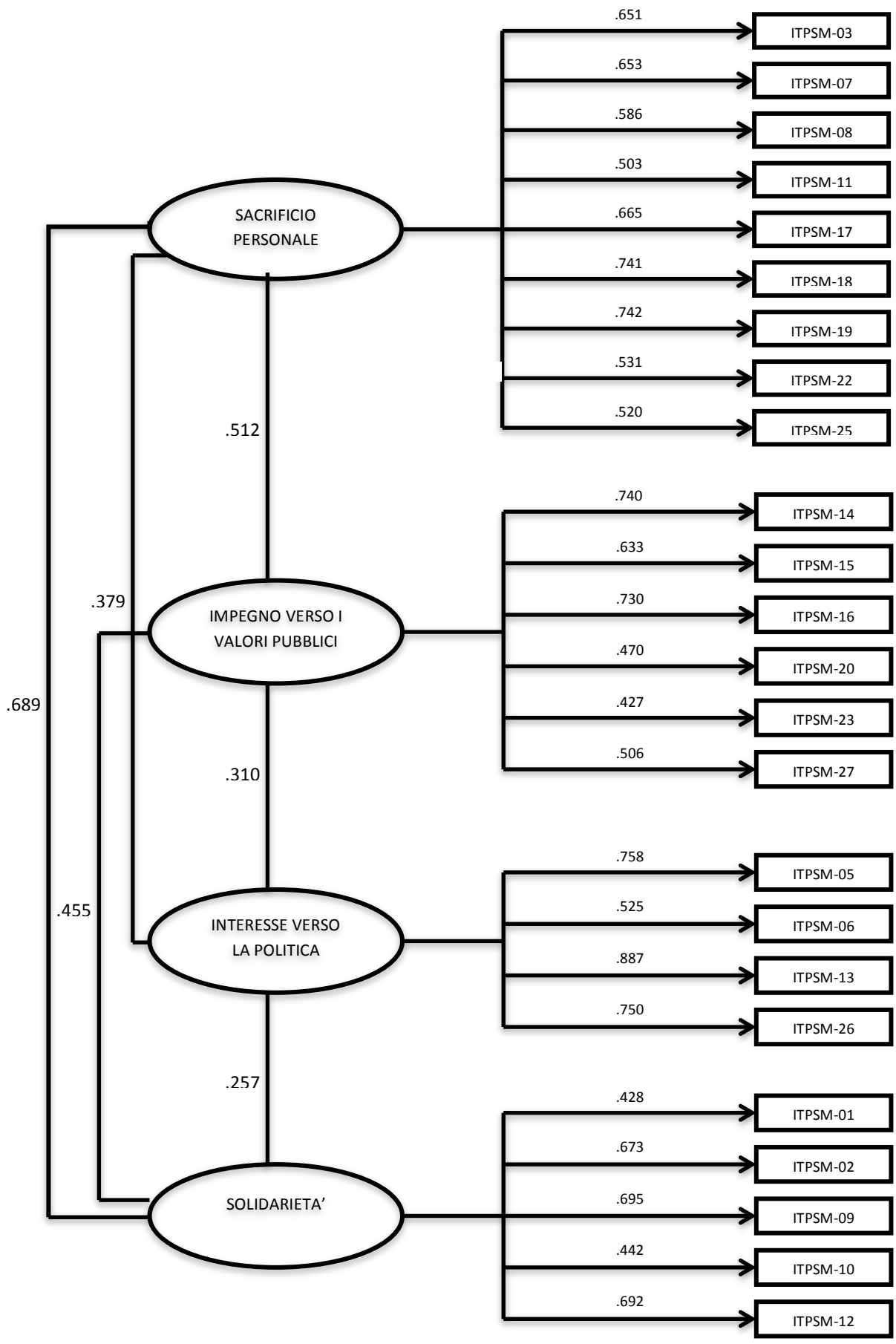
Settore/comparto del pubblico impiego in cui lavora:

- [1] Enti locali (regioni, province, comuni, IPAB, camere di commercio)
- [2] Enti pubblici non economici (INPS, INAIL, INPDAP, ecc.)
- [3] Enti art. 70 d.lgs. 165/2001 (CNEL, ENEA, CONI, ENAC, ecc.)
- [4] Ministeri
- [5] Agenzie Fiscali
- [6] Aziende (Ferrovie dello Stato, RAI ecc.)
- [7] Sanità
- [8] Istruzione (scuola, università, ricerca, accademie e conservatori)
- [9] Forze dell'Ordine (Polizia di Stato, Carabinieri, Finanza, Forestale, Polizia Penitenziaria)
- [10] Altro (specificare _____)

APPENDIX 3 - ITALIAN-PSM-QUESTIONNAIRE

- I TPSM-01_Pensare al benessere altrui è molto importante
- I TPSM-02_Sono spesso toccato dalla condizione dei bisognosi
- I TPSM-03_Sono pronto a fare sacrifici per il bene della società
- I TPSM-04_Rimango raramente toccato dalla condizione dei bisognosi
- I TPSM-05_Sono molto interessato alla politica
- I TPSM-06_Sono molto interessato a ciò che accade nel mio Paese
- I TPSM-07_Sono disposto a rischiare perdite personali per aiutare la società
- I TPSM-08_Credo si debba anteporre il dovere civico a se stessi
- I TPSM-09_Mi preoccupo moltissimo delle altre persone
- I TPSM-10_Provo compassione per chi sta affrontando delle difficoltà
- I TPSM-11_Ritengo che le persone debbano restituire alla società più di quanto ricevono
- I TPSM-12_Mi sento obbligato a prendermi cura delle persone bisognose
- I TPSM-13_Mi piace discutere di politica con gli altri
- I TPSM-14_Concordo con la promozione delle pari opportunità riconosciute dallo Stato
- I TPSM-15_Rispetto i funzionari pubblici che sono in grado di trasformare una buona idea in una legge
- I TPSM-16_Ritengo davvero importanti le pari opportunità per i cittadini
- I TPSM-17_Spero che il servizio pubblico contribuisca al benessere della società, anche se viene danneggiato il mio interesse
- I TPSM-18_Sono favorevole ad un buon programma che migliori la vita dei bisognosi, anche se questo mi costa economicamente
- I TPSM-19_Preferisco vedere i funzionari pubblici fare ciò che è meglio per la collettività, anche se questo lede i miei interessi
- I TPSM-20_Se ciascun gruppo non partecipa alla prosperità della nostra società, tutti quanti stiamo peggio
- I TPSM-21_Faccio fatica a interessarmi intensamente a ciò che accade nel mio Paese
- I TPSM-22_È sicuramente più importante per me fare buone azioni che stare bene economicamente
- I TPSM-23_È fondamentale che il servizio pubblico provveda ai cittadini con regolarità e continuità
- I TPSM-24_Non è importante che le persone rendano alla società più di quanto hanno ricevuto
- I TPSM-25_Servire i cittadini mi farebbe stare bene anche se nessuno mi pagasse per questo
- I TPSM-26_Trovo interessante condividere con altri la mia visione sulla politica pubblica
- I TPSM-27_Dobbiamo fare tutto ciò che è in nostro potere per affermare la vittoria della democrazia
-

APPENDIX 4 - STANDARDIZED SOLUTION BASED ON THE TOTAL SAMPLE (N=780)



APPENDIX 5 - DESCRIPTION OF THE SAMPLE USED IN THE PILOT STUDY

Category	Sub-category	N	(%)
Gender	Male	97	(44.9%)
	Female	119	(55.1%)
	Not responding	0	(0.0%)
Age	<25 y.o.	0	(0.0%)
	25-34 y.o.	8	(3.7%)
	35-49 y.o.	108	(50.0%)
	≥50 y.o.	100	(46.3%)
Type of contract	Fixed-term contract	14	(6.5%)
	Open-ended contract	201	(93.0%)
	Other	1	(0.5%)
	Not responding	0	(0.0%)
Seniority of service	<5 years	8	(3.7%)
	5-10 years	30	(14.0%)
	11-20 years	53	(24.5%)
	>20 years	125	(57.8%)