Framing effects under different uses of performance information: An experimental study on public managers [1]

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ABSTRACT

Combining insights from public administration, accounting and psychology, this paper aims at exploring the micro-processes through which public managers use performance information, investigating whether the type of performance information use and the request to justify decisions affect the way in which information is processed. Drawing on data from a series of artefactual survey experiments with Italian municipal executives, the findings show that managers will process information differently under *ex-post* rather than *ex-ante* performance information uses. More specifically they will be more likely to be subject to framing bias under *ex-post* than under *ex-ante* uses of performance information. This interaction seems to be robust when asking subjects to provide justification for their decisions.

Introduction

Performance measurement has been heralded by New Public Management (NPM) reformers as a core element in the modernization of public sector organizations, translating into pratice principles of managerialism, economic rationality and results orientation (Osborne and Gaebler, 1992; Hood, 1991; Pollitt and Bouckaert, 2011). While these principles became globally diffused and recognized as the new mantra for the public sector, both performance measurement practices and related empirical research gained momentum (Moynihan et al. 2011; Kroll 2014). Research looking at the implementation and effects of performance measurement systems increasingly pointed to the limited use of performance information, and started to explore the conditions under which it is used (Kroll 2015). If a rich literature now exists on the factors enabling the use of such information (for reviews,

see Kroll 2014, 2015), *i.e.* on "when" performance information may be used and by "whom", less consideration has been devoted to understand "why" and "how" performance information is used. As such, performance information use still remains a "black box", which needs unpacking. The use of performance information has often been seen as a mono-dimensional concept, with most research only investigating whether or not use occurs (on this, see for example, Moynihan and Pandey 2010), suggesting that there is a need to further explore the implications of differences in the conditions under which information is used (e.g., Moynihan 2009; Speklé and Verbeeten 2014). Moreover, most authors have so far focused on understanding the drivers of use, rather than the *ways in which performance information is processed by users*. This points that more investigation may be needed to understand how users deal with performance information.

Interestingly, the few studies focusing on how information is processed in the public realm refer to either citizens or politicians and have shown that their use of performance information, far from being a purely rational and reflective process, is affected, among others, by primes, frames and prior beliefs (Olsen 2015, Andersen and Hjortskov 2015, Baekgaard and Serritzlew 2016, Nielsen and Moynihan 2017, Nielsen and Baekgaard 2013; George et al 2018). Surprisingly, little is known about how *public managers* process performance information and engage with it when taking decisions related to their responsibilities, and if they process information differently under different situations of performance information use. Indeed, managerial responsibilities and tasks will encompass different possible uses of performance information, including, among others, decisions on evaluation of employees, distribution of incentives, promotions, allocation of financial and non-financial resources to organizational units, services and managers, efforts to be deployed in different tasks and goals, future goals and strategies, cutbacks, prioritization and reconfiguration of services. Each of these decisions will require the relevant information to be selected, interpreted, and elaborated. How these micro-processes work under different tasks and situations, and the related accuracy, bear wider relevance in that they will affect, among others, public employees' behaviors and commitment, the resources

available to organizational units and services, the functioning of and directions taken by public sector organizations, the provision of public services, and, ultimately, the responses to citizens' needs.

The aim of this paper is to look at how the types of situations in which managers use performance information may bring about different cognitive processes, with different levels of accuracy. To do so, the paper combines insights from accounting, public administration and psychological literatures to offer a twofold contribution. First, it provides evidence that public managers will process information differently *under different performance information use situations*, being more likely to be subject to framing effects under *ex-ante* uses of performance information than *ex-post*; second, it shows that asking managers to justify their decisions will not mitigate such effects.

The paper is structured as follows. Section 2 provides theoretical discussion of micro-processes of performance information use drawing on public administration, accounting and psychological literatures. Section 3 presents the experimental designs. Section 4 reports the results. Section 5 discusses the results and draws conclusions.

Performance information use in the public sector: towards a focus on managerial micro-processes

An increasing body of literature has explored performance measurement system adoption (Bouckaert 1993; Meekings 1995), implementation (De Lancer Julnes and Holzer 2001), and managerial use (for example, Van Dooren and Van De Walle 2008). To better understand this phenomenon, a number of studies have sought to identify the factors which explain performance information use (e.g., Melkers and Willoughby 2005; Ammons and Rivenbark 2008; Taylor 2011; Moynihan and Pandey 2010; Moynihan and Lavertu 2012; Moynihan, Pandey and Wright, 2012; Kroll 2014, 2015).

The studies described above have contributed to clarify the distinction between adoption, implementation and use of performance information, to highlight the related drivers and, in some cases, their relationships with organizational performance. They have generally looked at performance information as either an input or an output of managerial processes. However, there is a

relative paucity of research on the micro-processes through which managers engage with performance information, elaborating, interpreting and, in sum, using it. This is potentially relevant since the performance measurement movement has tended to suggest a view of performance information as "objective" and "neutral" support to politicians', citizens' as well as public managers' decisions.

However, this idea of neutrality has been challenged on different grounds. Information can be intentionally used and even misrepresented for political or perverse reasons (Moynihan et al. 2012). Moreover, the bounded-rationality literature has suggested that judgment is systematically affected by cognitive limitations and information availability and tractability, and, thus, will depart from pure rationality (Simon 1955; Rabin 1998).

Interestingly, how these phenomena unfold in the public realm have been mainly studied with reference to politicians and citizens. Such studies have shown that politicians' and citizens' use of performance information is affected by the framing of information (Olsen 2015), priming and frames (Andersen and Hjortskov 2015), prior beliefs (Baekgaard and Serritzlew 2016), negativity bias (Nielsen and Moynihan 2017; Nielsen and Baekgaard 2013), institutional isomorphism (George et al., 2018). More specifically, Olsen (2015) shows that presenting hospital satisfaction results to citizens as "dissatisfaction rates" leads to more negative assessment of services than relying on "satisfaction rates". However, the negative response is reduced by professional experience and prior exposure to satisfaction rates. Andersen and Hjortskov (2015) show that the dual-process theories of reflective and intuitive thinking provide a more adequate interpretation of the citizens' use of information than the Expectation-Disconfirmation Model. Baekgaard and Serritzlew (2016) show that even the interpretation of unambiguous performance information by citizens is influenced by prior beliefs. In their study on politicians, Nielsen and Moynihan (2016) show that negativity bias affects the use of performance data in judging leadership responsibility. George et al (2018) highlight that coercive and normative pressures influence politicians' performance information use, whereas mimetic pressures and negativity bias appear to have a more limited impact on it.

Less attention has been devoted so far to understand the conditions, and the possible biases and frames, which affect public managers' micro-processes of decision-making. This study contributes novel experimental evidence to a nascent stream of research that investigates managers' misrepresentation of performance information. For instance, Meier and his colleagues (2015) show that school principals systematically overestimate the performance of their school, and perceptual performance is only weakly associated with official performance. Belle et al. (2017) have shown that anchoring and halo effects systematically biased performance ratings of public sector managers and employees.

This is an interesting research area as public managers have often been depicted as driven by economic rationality, abiding by professional norms, and being equipped with the expertise necessary to provide public services and run day-by-day administration (Schedler 2003). These managerial prerogatives are likely to influence how managers process performance information. Managers may be expected to process performance information in a rational way, relying on their position and expertise to make decisions, allocate resources, evaluate staff, and more generally address various micro-management processes. However, similar to citizens and politicians, public managers' actual behaviours may be affected by biases and cognitive limitations in the elaboration of performance information. As past research has suggested that managerial use or non-use of information will depend on a number of contextual, organizational, task-related, individual factors (see above), similarly, it may be expected that there may be organizational or task-related conditions that may also affect the micro-processes of use, *i.e.* how information is interpreted and processed by managers. Public managers face different situations and tasks where they are expected to use and process performance information. What is not clear is whether such processes of elaboration will be similar (for example, in terms of thoughtfulness and accuracy) across such different situations, *i.e.* under different types of uses of performance information. Moreover, public managers are often asked to justify, explain and account for their decisions, yet it is not clear whether these processes of being held accountable will improve the accuracy of their decisions.

This paper explores whether the type of use of performance information, and being asked to justify the related decisions, will affect the micro processes through which public managers interpret and use performance information (and, more specifically, their accuracy). To do so, it combines existing accounting and public administration literature on different performance information uses and the psychological theory of equivalence framing. They are further discussed in the next sub-sections.

Micro-processes of performance information use: public administration and accounting literature

Conceptual contributions in the public administration literature (Behn 2003; Van Dooren, Bouckaert, and Halligan 2010; Moynihan 2009; Moynihan, Pandey, and Wright 2012) generally point out that performance measurement systems may serve different purposes, including evaluating, controlling, budgeting, motivating, celebrating, learning and improving (Behn, 2003), or control, steering, learning and accountability (Van Dooren, Bouckaert, and Halligan, 2010). Interestingly, however, most empirical studies focus on a mono-dimensional view of performance information use. Among the few empirical papers considering a variety of performance information uses, Moynihan, Pandey and Wright (2012) distinguish between purposeful and political uses; Speklé and Verbeeten (2014), drawing on accounting literature, show how different types of performance information uses have different relationships with organizational performance. More generally, accounting literature (referring to private sector firms) has theoretically and empirically pointed to a diversity of uses of performance information (Vandenbosch 1999; Simons 1990; Henri 2006). It is outside the remit of this paper to discuss them at length, or to provide an exhaustive review of such literature. However, drawing on the most commonly adopted classifications, it is possible to identify two main roles for performance information in organizations. *Ex ante*, it can be used to support planning, explore new possibilities, foster learning, define the goals to be pursued, allocate resources and efforts. This use of performance information has been described as *decision-facilitating* (Demski and Feltham 1976), aimed at focusing attention and energies, stimulating new ideas and initiatives (Vandenbosch 1999; Henri 2006), reducing ex-ante uncertainty (Tiessen and Waterhouse 1983), revising decision making

beliefs (Baiman 1982), assisting in problem solving (Simon et al. 1954) and improving employees' knowledge, thereby enhancing their ability to make organizationally desirable judgments and better-informed action choices (Sprinkle 2003). Through the decision-facilitating use managers decide how to allocate resources and efforts on the basis of past results and expectations about the future. Sprinkle (2003) argues that performance evaluation involved in the decision-facilitating use is indented to improve future performance. Generally, under this type of use, managers will be expected to scan for relevant information, analyze it systematically, taking an exploratory stance and pondering different possibilities and opportunities. They may also feel responsible for the future possible effects of their choices and thus pay more attention during the decision making process, as suggested by studies showing that personal involvement will increase the degree of attention to information content, and reduce the reliance on simple heuristics (e.g., Harkness et al. 1985; Chaiken 1980; Petty et al. 1981; Borgida and Howard-Pitney 1983; Showers and Cantor 1985).

Ex post, performance information is used for assessing past performance, appraising and rewarding employees and organizations (Demski and Feltham 1976; Baiman 1982) through monitoring, measuring, evaluating. This use of performance information has been described as *diagnostic* (Simons 1990) or *decision-influencing* (Demski and Feltham 1976), whereby information is used to provide feedback, monitor and reward the achievement of pre-established goals, with a focus on exceptions, mistakes and negative variances (Sprinkle 2003).

With respect to *ex-ante* and *ex-post* uses of performance information by managers in the public realm there is no cue or past research on how information is actually processed and whether there are differences in the way in which managers approach information among uses. To unearth this issue it is useful to rely on the psychological theory of equivalence framing.

Framing effects under ex-ante and ex-post uses of performance information

The bounded-rationality literature has suggested that judgment is systematically affected by cognitive limitations and information availability and tractability, and, thus, will depart from pure rationality

(Simon 1955; Rabin 1998). Decision makers tend to rely on a limited number of heuristic principles, which reduce the complex tasks of assessing probabilities and predicting values to simpler judgmental operations (Tversky and Kahneman 1974). In particular, framing literature suggests that in the very act of interpreting and processing information, individuals may be influenced by how information is framed (Tversky and Kahneman 1981; Tversky and Kahneman 1986; Levin et al. 1998). In general, equivalence framing effects occur when individuals respond in systematically different ways to different but objectively equivalent pieces of information that are framed differently (Tversky and Kahneman 1981; Tversky and Kahneman 1986; Levin et al. 1998; Rabin 1998). Several studies in different fields show that describing situations in terms of success instead of failure rates affects evaluations and decisions, as positive framing leads to more favorable evaluations than negative framing (Kuhberger 1998; Levin et al. 1998).

Framing effects may arise from lack of attention and are expected to occur less frequently if people think more carefully about the choice they make (Sieck e Yates 1997; Smith and Levin 1996, LeBoeuf and Shafir 2003; Simon et al. 2004). Looking at the presence of framing effects will thus signal the type of cognitive processes that underlie the adoption of managerial decisions. In this paper, framing effects will be used to explore the characteristics of such processes, in terms of accuracy and thoughtfulness, under *ex-ante* and *ex-post* uses of performance information.

As pointed out above, when performance information is used *ex ante* to decide on future actions to be taken, or resources to be allocated, managers will tend to explore possibilities and alternatives, probably including more elements and paying more attention in their decisions. This may reduce the reliance on simple heuristics, translating into a more thoughtful and accurate processing of information. This suggests that equivalence-framing effects may be less likely as managers will be open to evaluate all the information available, the consequences of their choices, and more careful about the underlying phenomena described by the measures they consider. Differently, when performance information is used *ex post, i.e.* to evaluate and give feedback, there may be an expectation that managers will be more likely to narrowly focus on the specific task to assess

performance, and on the specific data provided to them, feel less personally involved in the outcome of their decision, and be less likely to include more elements in their decisions, thus relying more strongly on simple heuristics. They may thus be expected to be less accurate and thoughtful in their decision and more prone to be influenced by a framing effect. From these considerations, the following hypothesis arises:

Hp 1: Framing effects will be stronger under ex-post uses of performance information than under ex –ante uses.

Framing effects, performance information use, and the justification of decisions

Framing literature provides useful lenses also to explore if asking managers to justify decisions contributes to improve decision-making. Public managers are often requested to supply accompanying reports or qualitative explanations, which are aimed to contextualize and justify the decisions made in such situations as allocation of resources and efforts, or performance evaluations. Such reports are aimed on the one hand to provide explanations, on the other to hold decision – makers accountable. It is thus interesting to explore whether these accountability requirements contribute to improve the accuracy and thoughtfulness of the way in which performance information is processed.

Extant literature shows that encouraging people to justify their choice, for example by explaining it in writing, can improve decisions, by strengthening their thoughtfulness (Fagley and Miller 1991; Rabin 1998; Sieck and Yates 1997; Stinessen 1985; Davis and Bobko 1986; Koriat et al. 1980). Justifying one's reasoning is expected to "lead to greater thought about the choice, and hence less contamination by biasing factors such as framing" (Smith and Levin 1996, 284), as framing effects are less likely when the decision is processed to a greater degree (LeBoeuf and Shafir 2003; Simon et al. 2004). Studies looking at the moderating role of justifications actually provide mixed results. A number of studies, including Fagley and Miller (1991), Sieck and Yates (1997) and Takemura (1994),

provide evidence of reduced framing effects when justification for decisions is required, suggesting that being asked to justify one's decision will encourage more thoughtful deliberation.

However, the persistence of framing effects in spite of the request of rationale for choices was found in other studies (Takemura 1993; Levin and Chapman 1990; LeBoeuf and Shafir 2003; Schooler and Melcher 1995; Schooler et al. 1993; Wilson and Schooler 1991). These last results may be explained drawing on the cognitive dissonance literature (Festinger 1957), which suggests that individuals who adopt decisions apparently in conflict with their beliefs may experience mental discomfort and seek to reduce such conflict. The need to reduce cognitive dissonance may cause confirmatory bias (Rabin 1998, 31), whereby prior beliefs and opinions will affect decisions. Along these lines, once people have taken a decision, they may want to provide support for it, instead of changing their choices, and thus requesting justification of one's action may not produce more accurate decisions. Moreover, cognitive dissonance may focus people's attention on non-optimal criteria when they are asked to make explicit the reasons underlying a certain choice (Wilson and Schooler 1991). As people are often unaware of the processes and criteria underlying their decisions, asking them to justify their decision may not necessarily increase decision-making thoughtfulness, but result in people trying to simply confirm their choice by giving plausible responses (Wilson and Schooler 1991, 182). From this follows:

Hp 2: Asking justification for decisions will not necessarily increase public managers' accuracy in processing performance information.

Methods

Empirical setting

To explore whether and to what extent framing effects influence public managers' decisions, five artefactual survey experiments were conducted using an online survey. The participants were public managers working in Italian municipalities with more than 5,000 inhabitants [1]. In Italy,

municipalities have jurisdiction over a large and heterogeneous number of services, including social care and assistance, education, local transportation, urban planning and security, waste disposal, and commercial activities. As such, whereas Italian municipal public managers share the same hierarchical level, their responsibilities vary from human resource management to financial planning, requiring them to take decisions under different situations. For these reasons, they are well-suited to participate in this study.

Data collection

All available email addresses of Italian municipalities' public managers were retrieved from the relevant official websites (for a total of 9,437 addresses). The online surveys were administered between February and July 2016 and a further version of the survey experiment was administered between November and December 2017.

In the end, a total of 1,207 of public managers working at 630 different municipalities participated in the five artefactual survey experiments: 306 in survey Alpha, 68 in survey Beta, 83 in survey Gamma, 95 in survey Delta, and 655 in survey Epsilon. We sent 4,882 invitations to participate in survey Alpha, 1,430 in survey Beta, 1,210 in survey Gamma, and 1,915 in survey Delta, with response rates respectively equal to 6.3%, 4.8%, 6.9%, and 5.0%. Invitations to participate in experiment Epsilon were sent to all the 7,999 contacts who had not opened the survey in the previous administrations, and the response rate was 8.1%. These relatively low response rates reflect the difficulties generally encountered when surveying Italian public managers (Ditillo et al. 2015; Liguori et al. 2012). Whereas it may detract from external validity, the low response rate does not impinge on the internal validity of the findings (Shadish et al. 2002).

Randomization procedure

In experiment Alpha, subjects were asked to imagine themselves as the director of the Sports and Culture Department of a fictitious Italian municipality and presented with information about the customer satisfaction ratings of their municipality's sports facilities. A random subgroup of participants received this piece of information in a negatively-framed fashion – *i.e.* in terms of percentage of customers who were dissatisfied with the sports facilities. The same information was positively-framed for the remaining respondents – *i.e.* in terms of the percentage of customers who were satisfied.

Experiment Beta was the same as experiment Alpha but in experiment Beta it was made explicit that customers had been asked to choose between two alternatives only, *i.e.*, satisfied or dissatisfied with the sports facilities' services. The rationale for this clarification was to make the positively-framed information unambiguously equivalent to the negatively-framed information.

Experiment Gamma was the same as experiment Alpha but subjects in Experiment Gamma were asked to make the same four decisions as in experiment Alpha and then type a justification in a space provided below each of the four sliders.

Experiment Delta departed from experiment Gamma as follows: in experiment Delta it was made explicit that customers had been asked to choose between two alternatives only, *i.e.*, satisfied or dissatisfied with the sports facilities' services.

In order to remove any doubt that these results were driven by the particular order of presentation of decisions, experiment Epsilon was designed to replicate experiment Beta, but with a random order of decisions. The text of the scenarios proposed to the subjects is included in the appendix, together with the English translation.

Independent variable

Framing of information provided to the participants is the main independent variable, which was operationalized following Olsen (2015). Framing of information can therefore be either positive or negative. Like in Olsen (2015), for the positive framing, the percentage of satisfied customers was randomly drawn from the following set: 75%, 80%, 85%, 90%, 95%. For the negative framing, the percentage of dissatisfied customers was randomly drawn from the following set: 25%, 20%, 15%, 10%, 5%.

Dependent variables

After being presented with the customer (un-)satisfaction rating, subjects had to make four decisions. Firstly, participants were asked to rate the performance of the sports facilities' director on a 0-100 continuous scale. Second, they rated the performance of the sports facilities on a 0-100 continuous scale. Third, respondents indicated on a 0-100 continuous scale the amount of effort they would expend to improve the sports facilities. Lastly, subjects had to set the sports facilities' budget for next year – relative to the current year – on an 11-point discrete scale ranging from -50% to +50%. Subjects expressed their preferences by moving a slider on their computer screen. The decisions about rating the performance of the sports facilities and their director are examples of *ex-post* uses of performance information. The decisions about effort intentions and budget allocations represent *ex-ante* uses of performance information. In experiment Epsilon decisions were displayed in a random order.

Results

Table 1 reports the tests for balance across subjects' demographic characteristics for the five experimental surveys, separately by framing condition. For each of the five experiments, groups with negatively-framed and positively-framed customer satisfaction ratings were balanced and did not

differ at the .05 level with respect to age, gender, graduate degree, and number of people reporting to the respondent.

[Table 1 about here]

Table 2 shows the means and standard deviations of the four outcome variables in experiment Alpha, separately for participants presented with negatively-framed and positively-framed customer satisfaction ratings. Subjects in the negative framing condition gave a lower rating to the director of the sports facilities (M = 64.56, SD = 26.11) as compared to respondents in the positive framing condition (M = 77.19, SD = 12.63), $p < .001$. Similarly, the performance appraisal of the sports facilities tended to be lower under a negative framing (M = 65.15, SD = 25.12) than under a positive framing (M = 76.68, SD = 18.07), $p < .001$. The framing of customer satisfaction ratings did not seem to affect neither participants' job effort intentions (p = .255) nor the budget they would allocate to sports facilities next year (p = .936).

[Table 2 about here]

Table 3 shows the results of experiment Beta. The results about framing effect held when it was made explicit that customers had to choose between two satisfaction levels, *i.e.* satisfied or dissatisfied. Subjects in the negative framing condition gave again a lower rating to the director of the sports facilities (M = 56.43, SD = 22.89) relative to respondents in the positive framing condition (M = 73.68, SD = 16.80), $p < .001$. Similarly, the performance appraisal of the sports facilities tended to be lower under a negative framing (M = 57.47, SD = 18.59) than under a positive framing (M = 72.61, SD = 21.00), $p < .01$. The framing of customer satisfaction ratings did not affect neither participants' job effort intentions (p = .941) nor the budget they would allocate to sports facilities next year (p = .228).

[Table 3 about here]

Table 4 reports the main results from experiment Gamma, which were overall consistent with findings from experiment Alpha. In experiment Gamma public managers in the negative framing condition gave a lower rating to the director of the sports facilities (M = 64.00, SD = 25.43) relative to subjects in the positive framing condition (M = 75.70, SD = 11.70), $p < .05$. Similarly, the performance appraisal of the sports facilities tended to be lower under a negative framing (M = 66.15, SD = 22.67) than under a positive framing (M = 76.00, SD = 19.37), $p < .05$. Like in experiment Alpha, the framing of customer satisfaction ratings did not affect neither participants' job effort intentions (p = .218) nor the budget they would allocate to sports facilities next year (p = .789).

[Table 4 about here]

In experiment Gamma respondents were asked to type in a justification for each of the four decisions they had to make. The pattern of results for respondents providing justifications for their choices (see table 5) did not significantly depart from results from the pooled sample (table 4). The size of the framing effect for the first two decisions is even larger among those providing a justification for their decisions (M = 21.37, SD = 7.62 and M = 13.89, SD = 8.12 respectively) than for those who did not (M = 3.01, SD = 6.37 and M = 6.46, SD = 5.48 respectively).

[Table 5 about here]

[Table 6 about here]

The results of experiment Gamma suggest that the framing effect was unaffected by the request to justify decisions. Contrary to expectations, asking public managers to justify decisions did not protect them from a framing bias. To the contrary, the data provide evidence that the size of framing bias occurring in the first decision was larger for public managers who justified it.

Experiment Delta included both the explicit information about the fact that customers had to choose between two satisfaction levels, *i.e.* satisfied or dissatisfied, and the request to justify the decisions. Table 7 shows that the combination of these two variations did not affect the pattern of results

observed in the other three experiments. The average rating of the sports facilities director is again lower in the negative framing condition (M = 64.07, SD = 24.27) relative to the average rating in the positive framing condition (M = 75.83, SD = 11.76), $p < .01$. Also, the performance appraisal of the sports facilities tended to be lower under a negative framing (M = 67.20, SD = 23.25) than under a positive framing (M = 76.09, SD = 17.17), $p < .05$. There is no detectable effect in neither the participants' job effort intentions (p = .885) nor the budget they would allocate to sports facilities next year (p = .616).

[Table 7 about here]

The pattern of results for respondents who did provide justifications for their choices (see table 8) did not significantly depart from the pattern of results from the sample of public managers who did not provide it (see table 9).

[Table 8 about here]

[Table 9 about here]

Random order of decisions did not change the results. Table 10 reports the differences in responses by participants in experiment Epsilon. When the customer (dis)satisfaction rate was negatively framed, participants gave a lower rating to the director of the sports facilities (M = 60.11, SD = 25.06) relative to their colleagues in the positive framing condition (M = 68.84, SD = 22.83), $p < .001$. The performance appraisal of the sports facilities was again lower under a negative framing (M = 61.50, SD = 23.87) than under a positive framing (M = 68.44, SD = 22.26), $p < .01$. The framing of customer satisfaction ratings did not affect participants' job effort intentions (p = .347) or the budget they would allocate to sports facilities in the following year (p = .380).

[Table 10 about here]

In sum, subjects in the negative framing condition gave a lower rating to the director of the sports facilities and to the sport facilities themselves as compared to respondents in the positive framing

condition. By contrast, the framing of customer satisfaction ratings did not affect neither participants' job effort intentions nor the budget they would allocate to sports facilities next year. The pattern of results was consistent across the five versions of the experiment. Because some of the subjects were nested within the same municipality, the analysis was replicated using multilevel models to take into account the possible hierarchical structure of the data. Likelihood ratio tests indicated that the hierarchical structure of the data had no significant impact on estimates. Out of the 20 likelihood ratio tests (4 per experiment), 15 indicated that a multilevel model was not a better fit to data compared to an OLS. In the five cases to which LR tests were significant, the results did not change. In no case discrepancy emerged between OLS estimates and estimates from multilevel model. Taken together, the findings suggest that the framing effects were contingent upon the type of information use.

Discussion and conclusions

NPM has proposed performance measurement as a possible solution to improve decision making and performance in the public sector. However, while a number of studies have investigated "when" performance information is used and by "whom", much less attention has been paid so far to investigate "why" and "how" performance information is used. This paper contributes to unpack the performance measurement "black box" by exploring how public managers process information when faced with different tasks and the related decisions. More specifically, integrating insights from public administration, psychology and accounting, the paper sheds new lights on two related issues. First, it investigates if public managers' accuracy in processing information varies under different performance information use situations, i.e., whether they are subject to stronger framing effects under ex-post uses of performance information than ex-ante. Second, it explores whether the request for justification of decisions increases public managers' accuracy in processing performance information.

The findings from five artefactual survey experiments appear to confirm that framing bias may be contingent upon the *type of information use*, suggesting that public managers will process information differently under different performance information use situations. In particular, when performance information is used *ex post, i.e.* to evaluate either organizations or individuals, the framing effect appears to hold. On the contrary, when information is used *ex ante, i.e.* to decide on the allocation of financial resources or job efforts, the framing effect does not appear to hold. This suggests that information is processed differently when it is used for *ex-post* or *ex-ante* purposes. When information is used to provide *ex-post* feedback, public managers may be more likely to simply focus on their task as evaluators, taking into consideration fewer elements in their decisions, spending less effort and relying more strongly on simple heuristics. They may thus be expected to be less thoughtful and more sensitive to framing effect. On the contrary, when public managers' tasks refer to the allocation of resources and efforts they will be more likely to scan the available information in an open-minded process, exploring and pondering possible alternatives and probably paying more attention to the available information, while reducing reliance on simple heuristics. This will translate in them being less vulnerable to framing effects.

It must be recognized, however, that there may be other reasons behind the different impact of framing in the distinct decision scenarios. This possibility calls for further investigation as more typologies of managerial decisions when *ex-ante* and *ex-post* uses of information are involved may be investigated.

The findings also show that, contrary to expectations, asking public managers to justify their decisions does not mitigate the framing effect, and thus, seem to suggest that it does not increase the accuracy of the cognitive processes related to the use of performance information. If anything, in some cases the framing effect was higher among those public managers who provided justifications. This suggests that the writing of reports, and other forms of explanation and justification of decisions to keep public managers accountable, may not be sufficient to encourage a more in-depth analysis and exploration and thus reduce the risk of superficial decision-making. This evidence is consistent with

previous studies that found the persistence of framing effects even if when justification of decisions was elicited (Takemura 1994; Levin and Chapman 1990; LeBoeuf and Shafir 2003; Schooler and Melcher 1995; Schooler et al. 1993; Wilson and Schooler 1991). These results may be due to cognitive mechanisms that encourage people to avoid questioning their previous decisions, such as confirmatory bias or other psychological mechanisms used to cope with cognitive dissonance (Festinger 1957), such as attempts at justifying choices by referring to criteria that are plausible but may not have necessarily been the bases for the actual decision (e.g. Wilson and Schooler 1991).

This paper provides a twofold contribution. First, it is among the first studies to adopt an experimental approach to look at the processes through which performance information is used by public managers. Second, drawing on the insights of accounting literature, it sheds new lights on the relevance of distinguishing among different types of performance information use, as different uses appears to bring about different cognitive processes and be subject to framing effects to a different extent.

The results bear interesting implications for managers and reformers, suggesting that particular attention should be given to avoid framing effects especially in *ex-post* uses of performance information, whereby they may affect the fairness of evaluation processes. This means that how information is provided may be central in affecting the evaluation of public managers and even related promotion paths and incentives, or the evaluation of organizational units' performance, including performance-related sanctions and rewards. On the other hand, they also suggest that asking managers to justify their decisions may not always be sufficient to ensure that they are accurate in their information processing. However, on a more positive note, the results also suggest that, at least when decisions about future courses of actions are to be taken, and managers are requested to scan the environment to explore options and possibilities, they will be more open-minded and thus less prone to bias. Future research may explore further mechanisms that may mitigate the framing bias in public managers' decisions as well as investigate framing effects under different decision situations.

As for any piece of research, this paper has limitations. Whilst this experimental design is better equipped to avoid internal validity concerns, some potential threats to external and ecological validity

exist. First, using fictitious information may call into question the behavioural parallelism assumption, whereby there is no guarantee that, in making decisions in a real context with real incentives, public managers would behave the same way as they did in these experiments. For example, as emphasised by one anonymous reviewer, ex-ante decisions on resource and effort allocations involve several complex trade-offs which could not be fully captured in this study. Second, the pattern of results observed with Italian local public managers may vary across different populations. On a related note, it cannot be excluded that municipal managers participating in this study might be affected by framing bias in a different manner relative to their counterparts who did not complete the survey. Finally, it may be possible that the findings were contingent upon the specific decisions designed for these experiments. Replications of the study, adopting survey, lab, field, and natural experiments, across different contexts, units, and operations would allow for better generalizability of this piece of evidence (Van Ryzin et al., 2017; Walker et al., 2017; Belle and Cantarelli, 2017).

Notes

1. Differently from larger municipalities, in municipalities with less than 5,000 inhabitants managerial responsibilities are taken on by politicians sitting in the municipal executive board. Out of the 7,982 Italian municipalities (as at April 2017), 2,435 have more than 5,000 inhabitants.

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Table 1. ***Balance test of differences between treatment and control group in each experiment***

Survey		*Positive frame*		*Negative frame*	
Alpha	*N*	161		145	
		Mean	SD	Mean	SD
	Age	54.3	7.0	53.2	6.8
	Female (proportion)	0.4	-	0.5	-
	Graduate (proportion)	0.9	-	0.9	-
	Head of less than 5 employees (proportion)	0.1		0.2	
Beta	*N*	38		30	
		Mean	SD	Mean	SD
	Age	51.5	8.0	51.4	10.7
	Female (proportion)	0.5	-	0.4	-
	Graduate (proportion)	0.8	-	0.8	-
	Head of less than 5 employees (proportion)	0.4		0.5	
	Tenure	16.0	9.1	14.9	8.3
Gamma	*N*	37		46	
		Mean	SD	Mean	SD
	Age	52.8	6.6	50.9	6.8
	Female (proportion)	0.4	-	0.4	-
	Graduate (proportion)	0.8	-	0.9	-
	Head of less than 5 employees (proportion)	0.3		0.2	
Delta	*N*	54		41	
		Mean	SD	Mean	SD
	Age	50.4	10.5	50.1	9.8
	Female (proportion)	0.5	-	0.4	-
	Graduate (proportion)	0.9	-	0.8	-
	Head of less than 5 employees (proportion)	0.3		0.3	
	Tenure	17.5	8.2	14.6	8.6
Epsilon	*N*	317		338	
		Mean	SD	Mean	SD
	Age	53.2	7.6	52.6	7.8
	Female (proportion)	0.5		0.5	
	Graduate (proportion)	0.8		0.8	
	Head of less than 5 employees (proportion)	0.3		0.3	
	Tenure	14.4	7.3	14.5	7.1

Table 2. ***Means and standard deviations of the outcome variables by framing, experiment Alpha***

Alpha	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	144	64.56	26.11	161	77.19	17.27	12.63	***
Facilities' rating	144	65.15	25.12	161	76.68	18.07	11.54	***
Job effort	145	62.48	29.32	161	58.44	31.93	-4.04	
Budget change (%)	145	15.56	17.17	161	15.71	17.20	0.15	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Table 3. ***Means and standard deviations of the outcome variables by framing, experiment Beta***

Beta	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	30	56.43	22.89	38	73.68	16.80	17.25	***
Facilities' rating	30	57.47	18.59	38	72.61	21.00	15.14	**
Job effort	30	64.4	23.99	38	63.89	30.82	-0.51	
Budget change (%)	30	20.33	14.02	38	15.79	16.21	-4.54	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Table 4. ***Means and standard deviations of the outcome variables by framing, experiment Gamma***

Gamma	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	46	64.00	25.43	37	75.70	18.60	11.70	*
Facilities' rating	46	66.15	22.67	37	76.00	19.37	9.85	*
Job effort	46	61.70	29.22	37	69.95	31.20	8.25	
Budget change (%)	46	16.30	20.91	37	15.14	18.20	-1.16	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Table 5. ***Means and standard deviations of the outcome variables by framing, for public managers who provided with a justification to their decisions in experiment Gamma***

Gamma	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	22	56.86	29.17	17	78.24	13.11	21.37	**
Facilities' rating	21	62.24	28.24	16	76.13	18.30	13.89	
Job effort	17	65.18	28.86	16	66.81	34.15	1.64	
Budget change (%)	21	20.00	20.98	17	15.88	20.93	-1.16	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Table 6. ***Means and standard deviations of the outcome variables by framing, for public managers who did not provide with a justification to their decisions in experiment Gamma***

Gamma	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	24	70.54	19.89	20	73.55	22.36	3.01	
Facilities' rating	25	69.44	16.56	21	75.90	20.60	6.46	
Job effort	29	59.66	29.74	21	72.33	29.39	12.68	
Budget change (%)	25	13.20	20.76	20	14.50	16.05	1.30	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Table 7. ***Means and standard deviations of the outcome variables by framing, experiment Delta***

Delta	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	41	64.07	24.27	54	75.83	15.67	11.76	**
Facilities' rating	41	67.20	23.25	54	76.09	17.17	8.90	*
Job effort	41	60.61	29.79	54	61.46	27.45	0.85	
Budget change (%)	41	15.12	18.18	54	16.85	15.27	1.73	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Table 8. ***Means and standard deviations of the outcome variables by framing, compliers with the justification treatment in experiment Delta***

Delta	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	32	65.03	25.06	33	79.15	13.60	14.12	**
Facilities' rating	30	71.97	21.44	33	81.45	12.22	9.49	*
Job effort	28	61.86	31.59	30	59.17	29.42	-2.69	
Budget change (%)	29	14.48	16.82	30	14.00	15.67	-0.48	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Table 9. ***Means and standard deviations of the outcome variables by framing, for public managers who did not provide with a justification to their decisions in experiment Delta***

Delta	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	9	60.67	22.26	21	70.62	17.55	9.95	
Facilities' rating	11	54.18	23.97	21	67.67	20.50	13.48	
Job effort	13	57.92	26.48	24	64.33	25.10	6.41	
Budget change (%)	12	16.67	21.88	24	20.42	14.29	3.75	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Table 10. ***Means and standard deviations of the outcome variables by framing, experiment Epsilon***

Delta	**Negative Framing**			**Positive Framing**			**Δ**	
	N	Mean	SD	N	Mean	SD		
Director's rating	318	60.11	25.06	301	68.84	22.83	8.73	***
Facilities' rating	326	61.50	23.87	304	68.44	22.26	6.94	***
Job effort	324	58.82	28.06	307	56.69	28.69	-2.13	
Budget change (%)	330	17.53	2.86	308	18.70	3.12	-1.16	

** Statistically significant at the 5% level ** At 1% level *** At 0.1% level*

Appendix

Experiment Alpha (original version)

Positive Framing

Immagina di essere il direttore generale del settore sport e cultura in un comune italiano. Il 75% (scala 75% – 95%) degli utenti degli impianti sportivi comunali si dichiara soddisfatto del servizio offerto.

- Valuta la performance del direttore degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.
- Valuta la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.
- Indica lo sforzo che dedicheresti al fine di migliorare la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica il minimo sforzo e 100 indica il massimo sforzo.
- Indica di quanto varieresti il budget degli impianti sportivi per il prossimo anno selezionando una delle seguenti opzioni (da +50% a -50%).

Negative Framing

Immagina di essere il direttore generale del settore sport e cultura in un comune italiano. Il 25% (scala 5% – 25%) degli utenti degli impianti sportivi comunali si dichiara insoddisfatto del servizio offerto.

- Valuta la performance del direttore degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.
- Valuta la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

- Indica lo sforzo che dedicheresti al fine di migliorare la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica il minimo sforzo e 100 indica il massimo sforzo.
- Indica di quanto varieresti il budget degli impianti sportivi per il prossimo anno selezionando una delle seguenti opzioni (da +50% a -50%).

Experiment Alpha (English version)

Positive Framing

Imagine you are the general manager of the Sports and Education Department in an Italian municipality. 75% (75% – 95% scale) of sports facilities' users in town is satisfied with the service.

- Assess the performance of the sports facilities' director by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.
- Assess the performance of the sports facilities by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.
- Indicate the effort you would dedicate to improving the performance of sports facilities by moving the cursor in the following scale, where 0 means the least effort, and 100 means the maximum effort.
- Indicate how you would change the amount of budget assigned to sports facilities the next year, by selecting one of the following options (from +50% to -50%).

Negative Framing

Imagine you are the general manager of the Sports and Education Department in an Italian municipality. 25% (5% – 25% scale) of sports facilities' users in town is dissatisfied with the service.

- Assess the performance of the sports facilities' director by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

- Assess the performance of the sports facilities by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.
- Indicate the effort you would dedicate to improving the performance of sports facilities by moving the cursor in the following scale, where 0 means the least effort, and 100 means the maximum effort.
- Indicate how you would change the amount of budget assigned to sports facilities the next year, by selecting one of the following options (from +50% to -50%).

Experiments Beta and Epsilon (original version)

Positive Framing

Immagina di essere il direttore generale del settore sport e cultura in un comune italiano. Agli utenti degli impianti sportivi comunali è stato chiesto di esprimere la loro opinione sul servizio offerto scegliendo tra due opzioni: soddisfatto o insoddisfatto. Il 75% (scala 75% – 95%) degli utenti degli impianti sportivi comunali si dichiara soddisfatto del servizio offerto.

- Valuta la performance del direttore degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.
- Valuta la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.
- Indica lo sforzo che dedicheresti al fine di migliorare la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica il minimo sforzo e 100 indica il massimo sforzo.
- Indica di quanto varieresti il budget degli impianti sportivi per il prossimo anno selezionando una delle seguenti opzioni (da +50% a -50%).

Negative Framing

Immagina di essere il direttore generale del settore sport e cultura in un comune italiano. Agli utenti degli impianti sportivi comunali è stato chiesto di esprimere la loro opinione sul servizio offerto scegliendo tra due opzioni: soddisfatto o insoddisfatto. Il 25% (scala 5% – 25%) degli utenti degli impianti sportivi comunali si dichiara insoddisfatto del servizio offerto.

- Valuta la performance del direttore degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.
- Valuta la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.
- Indica lo sforzo che dedicheresti al fine di migliorare la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica il minimo sforzo e 100 indica il massimo sforzo.
- Indica di quanto varieresti il budget degli impianti sportivi per il prossimo anno selezionando una delle seguenti opzioni (da +50% a -50%).

Experiments Beta and Epsilon (English version)

Positive Framing

Imagine you are the general manager of the Sports and Education Department in an Italian municipality. Users of municipal sports facilities were asked to express their opinion about the service by choosing between two options: satisfied or dissatisfied. 75% (75% – 95% scale) of sports facilities' users in town is satisfied with the service.

- Assess the performance of the sports facilities' director by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

- Assess the performance of the sports facilities by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.
- Indicate the effort you would dedicate to improving the performance of sports facilities by moving the cursor in the following scale, where 0 means the least effort, and 100 means the maximum effort.
- Indicate how you would change the amount of budget assigned to sports facilities the next year, by selecting one of the following options (from +50% to -50%).

Negative Framing

Imagine you are the general manager of the Sports and Education Department in an Italian municipality. Users of municipal sports facilities were asked to express their opinion about the service by choosing between two options: satisfied or dissatisfied. 25% (5% – 25% scale) of sports facilities' users in town is dissatisfied with the service.

- Assess the performance of the sports facilities' director by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.
- Assess the performance of the sports facilities by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.
- Indicate the effort you would dedicate to improving the performance of sports facilities by moving the cursor in the following scale, where 0 means the least effort, and 100 means the maximum effort.
- Indicate how you would change the amount of budget assigned to sports facilities the next year, by selecting one of the following options (from +50% to -50%).

Experiment Gamma (original version)

Positive Framing

Immagina di essere il direttore generale del settore sport e cultura in un comune italiano. Il 75% (scala 75% – 95%) degli utenti degli impianti sportivi comunali si dichiara soddisfatto del servizio offerto. Rispondi alle domande che seguono e poi giustifica brevemente le tue scelte.

- Valuta la performance del direttore degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

  Giustifica brevemente la tua scelta.
- Valuta la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

  Giustifica brevemente la tua scelta.
- Indica lo sforzo che dedicheresti al fine di migliorare la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica il minimo sforzo e 100 indica il massimo sforzo.

  Giustifica brevemente la tua scelta.
- Indica di quanto varieresti il budget degli impianti sportivi per il prossimo anno selezionando una delle seguenti opzioni (da +50% a -50%).

  Giustifica brevemente la tua scelta.

Negative Framing

Immagina di essere il direttore generale del settore sport e cultura in un comune italiano. Il 25% (scala 5% – 25%) degli utenti degli impianti sportivi comunali si dichiara insoddisfatto del servizio offerto. Rispondi alle domande che seguono e poi giustifica brevemente le tue scelte.

- Valuta la performance del direttore degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

Giustifica brevemente la tua scelta.

- Valuta la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

  Giustifica brevemente la tua scelta.
- Indica lo sforzo che dedicheresti al fine di migliorare la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica il minimo sforzo e 100 indica il massimo sforzo.

  Giustifica brevemente la tua scelta.
- Indica di quanto varieresti il budget degli impianti sportivi per il prossimo anno selezionando una delle seguenti opzioni (da +50% a -50%).

  Giustifica brevemente la tua scelta.

Experiment Gamma (English version)

Positive Framing

Imagine you are the general manager of the Sports and Education Department in an Italian municipality. 75% (75% – 95% scale) of sports facilities' users in town is satisfied with the service. Answer the questions below and then briefly justify your choices.

- Assess the performance of the sports facilities' director by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

  Briefly justify your choice here.
- Assess the performance of the sports facilities by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

  Briefly justify your choice here.

- Indicate the effort you would dedicate to improving the performance of sports facilities by moving the cursor in the following scale, where 0 means the least effort, and 100 means the maximum effort.

  Briefly justify your choice here.
- Indicate how you would change the amount of budget assigned to sports facilities the next year, by selecting one of the following options (from +50% to -50%).

  Briefly justify your choice here.

Negative Framing

Imagine you are the general manager of the Sports and Education Department in an Italian municipality. 25% (5% – 25% scale) of sports facilities' users in town is dissatisfied with the service. Answer the questions below and then briefly justify your choices.

- Assess the performance of the sports facilities' director by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

  Briefly justify your choice here.
- Assess the performance of the sports facilities by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

  Briefly justify your choice here.
- Indicate the effort you would dedicate to improving the performance of sports facilities by moving the cursor in the following scale, where 0 means the least effort, and 100 means the maximum effort.

  Briefly justify your choice here.
- Indicate how you would change the amount of budget assigned to sports facilities the next year, by selecting one of the following options (from +50% to -50%).

  Briefly justify your choice here.

Experiment Delta (original version)

Positive Framing

Immagina di essere il direttore generale del settore sport e cultura in un comune italiano. Agli utenti degli impianti sportivi comunali è stato chiesto di esprimere la loro opinione sul servizio offerto scegliendo tra due opzioni: soddisfatto o insoddisfatto. Il 75% (scala 75% – 95%) degli utenti degli impianti sportivi comunali si dichiara soddisfatto del servizio offerto. Rispondi alle domande che seguono e poi giustifica brevemente le tue scelte.

- Valuta la performance del direttore degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

  Giustifica brevemente la tua scelta.
- Valuta la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

  Giustifica brevemente la tua scelta.
- Indica lo sforzo che dedicheresti al fine di migliorare la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica il minimo sforzo e 100 indica il massimo sforzo.

  Giustifica brevemente la tua scelta.
- Indica di quanto varieresti il budget degli impianti sportivi per il prossimo anno selezionando una delle seguenti opzioni (da +50% a -50%).

  Giustifica brevemente la tua scelta.

Negative Framing

Immagina di essere il direttore generale del settore sport e cultura in un comune italiano. Agli utenti degli impianti sportivi comunali è stato chiesto di esprimere la loro opinione sul servizio offerto

scegliendo tra due opzioni: soddisfatto o insoddisfatto. Il 25% (scala 5% – 25%) degli utenti degli impianti sportivi comunali si dichiara insoddisfatto del servizio offerto. Rispondi alle domande che seguono e poi giustifica brevemente le tue scelte.

- Valuta la performance del direttore degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

  Giustifica brevemente la tua scelta.
- Valuta la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica una pessima performance e 100 indica un'ottima performance.

  Giustifica brevemente la tua scelta.
- Indica lo sforzo che dedicheresti al fine di migliorare la performance degli impianti sportivi spostando il cursore in un punto della scala che segue, dove 0 indica il minimo sforzo e 100 indica il massimo sforzo.

  Giustifica brevemente la tua scelta.
- Indica di quanto varieresti il budget degli impianti sportivi per il prossimo anno selezionando una delle seguenti opzioni (da +50% a -50%).

  Giustifica brevemente la tua scelta.

Experiment Delta (English version)

Positive Framing

Imagine you are the general manager of the Sports and Education Department in an Italian municipality. Users of municipal sports facilities were asked to express their opinion about the service by choosing between two options: satisfied or dissatisfied. 75% (75% – 95% scale) of sports facilities' users in town is satisfied with the service. Answer the questions below and then briefly justify your choices.

- Assess the performance of the sports facilities' director by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

  Briefly justify your choice here.
- Assess the performance of the sports facilities by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

  Briefly justify your choice here.
- Indicate the effort you would dedicate to improving the performance of sports facilities by moving the cursor in the following scale, where 0 means the least effort, and 100 means the maximum effort.

  Briefly justify your choice here.
- Indicate how you would change the amount of budget assigned to sports facilities the next year, by selecting one of the following options (from +50% to -50%).

  Briefly justify your choice here.

Negative Framing

Imagine you are the general manager of the Sports and Education Department in an Italian municipality. Users of municipal sports facilities were asked to express their opinion about the service by choosing between two options: satisfied or dissatisfied. 25% (5% – 25% scale) of sports facilities' users in town is dissatisfied with the service. Answer the questions below and then briefly justify your choices.

- Assess the performance of the sports facilities' director by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

  Briefly justify your choice here.
- Assess the performance of the sports facilities by moving the cursor in the following scale, where 0 means a very bad performance, and 100 means an excellent performance.

Briefly justify your choice here.

- Indicate the effort you would dedicate to improving the performance of sports facilities by moving the cursor in the following scale, where 0 means the least effort, and 100 means the maximum effort.

  Briefly justify your choice here.

- Indicate how you would change the amount of budget assigned to sports facilities the next year, by selecting one of the following options (from +50% to -50%).

  Briefly justify your choice here.