Be prepared! Local politicians' proclivity for local government adaptive capacity building in response to COVID-19: The role of risk perceptions.

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Be prepared! Local politicians' proclivity for local government adaptive capacity building in response to COVID-19: The role of risk perceptions.

Although it is argued that organizational leaders' perceptions of external shocks determine organizations' willingness to prepare for future shocks, insights on the sensemaking processes leading local politicians to invest in adaptive capacity building after a crisis are scarce. Therefore, this study examines how politicians' COVID-19 risk perceptions relate to their proclivity to invest in organizational adaptive capacity building. Results, based on data from 710 local Flemish politicians, confirm that perceived severity of COVID-19 relates to politicians' willingness to invest in adaptive capacity building, while sociodemographic and event-related variables as well as socio-political attitudes are relevant predictors of politicians' risk perceptions.

Introduction

In 2009, French & Raymond argued that the possibility of an influenza pandemic occurring within the next two decades is very real, and that local governments should prepare for such event as they will have to play a crucial role for emergency response. Slightly more than a decade later, French and Raymond's worst-case scenario became a reality: COVID-19 wreaks havoc around the world and local governments worldwide struggle to cope with the effects of the pandemic (Menifield and Clark 2021). The main reason for this struggle seems to be that local governments lack the 'adaptive capacity to absorb disruptions and reorganize while undergoing changes' (Zhang, Welch, and Miao 2018, 373).

Given that the COVID-19 pandemic has revealed the limits of many local governments to deal with unexpected external shocks (O'Flynn 2021), the question arises if and how the COVID-19 pandemic impacts local politicians' intentions to strengthen their local authorities' capacity to deal with future external shocks. Insights in such crisis-induced learning processes are crucial as these processes have the potential to not only enhance local authorities capability to *bounce back* after an extreme event, but also to *bounce forward* through the enhancement or development of new capabilities increasing the resilience of the organization (Barbera et al.

2021). Although the organizational literature has argued that organizational leaders' perceptions of external shocks – often referred to as environmental jolts (Meyer 1982) – will determine how organizations prepare for future shocks (Lee, Vargo, and Seville 2013), insights on the mechanisms impacting politicians' decision to invest in adaptive capacity building after such shocks remain scarce (Barbera et al. 2021). Hence, we complement the literature on public organizations' capacity building by adopting a behavioural perspective (Grimmelikhuijsen et al. 2017) to analyse how politicians' risk perceptions are related to policy preferences. By doing so, we address the issue that 'political scientists [and public management scholars] have traditionally ascribed a relatively small role to individual-level elite preferences relative to institutional and structural factors' (Sheffer et al. 2018, 303). Based on insights derived from the literatures of protective (health) behaviour (Norman et al. 2015; Rogers 1975) and organizational responses to extreme events (Comfort 2007; Comfort and Okada 2013; Zhang, Welch, and Miao 2018), we examine how politicians' sociodemographic factors, event-related experiences and socio-political attitudes associate with risk perceptions and how these risk perceptions relate to politicians' proclivity to invest in adaptive capacity building (see Figure 1).

[Figure 1 here]

The developed model was tested using data from 710 local politicians collected during the initial stages of the COVID-19 pandemic in Flanders (Belgium). The findings suggest that perceived severity of COVID-19, in contrast to perceived vulnerability for COVID-19, plays a central role in the sensemaking processes impacting politicians' willingness to invest in adaptive capacity building. Sociodemographic and event-related variables as well as socio-political attitudes (PSM in particular) are relevant predictors of politicians' risk perception and could be responsible for choice anomalies.

The study has three main contributions. First, the study results contribute to the literature on the resilience of public organisations by providing insights into the individual sensemaking processes which shape local politicians' policy preferences for investing in adaptive capacity building after an external shock. This study is one of the few theoretically informed, quantitative studies shedding light on the sensemaking mechanisms responsible for 'the large variation in the decisions that public leaders take in response to crises' (Broekema et al. 2019, 202). Although gaining insights on how public organizations deal with economic and fiscal crises, and more specifically on what leads some public organizations to better withstand shocks than others has been of interest to public management scholars for more than two decades (Elston and Bel 2022), the majority of studies on the topic have adopted an organizational level perspective. For instance, prior work mainly focused on providing accounts and classifications of governmental reactions to crises or analysed the effectiveness of public organization's reactions to external shocks (see Barbera et al. 2017). However, given that few studies focus on the managerial consequences of environmental shocks (Bozeman 2010; Pandey 2010; Pollitt 2010), scholars expressed the need for more research at the micro-level (Barbera et al. 2017; Bullock, Greer, and O'Toole Jr 2019). Such shift in attention is needed because to date we know little about what internal mechanics of public sector organizations are producing resilience capacities (Bracci and Tallaki 2021), let alone about what role organizational actors' perceptions play in affecting organizational responses to external shocks. A research gap which leads to the juxtaposition that although organizational adaptations to external shocks are, to a large extent, dependent on the interpretation of environmental stimuli by organizational actors (Meyer 1982), the public management literature has devoted relatively limited empirical attention to the relationship between event perceptions of organisational leaders and responsive organizational actions (Barbera et al. 2021; Bracci and Tallaki 2021; Bullock, Greer, and O'Toole Jr 2019).

Second, the study results contribute to the public management literature by addressing the fact that little is known about the characteristics of the decision-making processes of those who have the greatest impact on most policy outcomes and carry the democratic responsibility for the outcomes of most public organizations, namely (elected) politicians (Sheffer et al. 2018; Walker, Jung, and Boyne 2013). This omission is even more pressing when it concerns external shocks that have 'manifold implications for the operations of programs, and penetrate deep inside public organizations and their production processes' (Meier, O'Toole, and Hicklin 2010, 97). As dealing with the "nightmare scenarios" that crises often produce may require the immediate devotion of considerable organizational resources, the green light to cut services (at least in the short-term), or the approval of budget shifts to accommodate investments in capacity building which may prompt a corresponding decline in current service quality (Andrews et al. 2013), elected politicians are expected to play a substantial role in these organisational decision-making processes.

Third, the study contributes to the literature by focusing on politicians active in local governments and, as such, counterbalances the fact that many studies analysing the drivers of adaptation and capacity building within public organisations focused on regional and national organisations (e.g., Miao et al. (2018)] on public transit organizations, and Zhang, Welch, and Miao (2018)] on transit agencies). As first-line responders, local governments are ultimately responsible for emergency response and the provision of critical support (French and Raymond 2009). Given local governments' understanding of the unique needs of communities, they are the government level best suited to tailor interventions to the needs of the specific local community (Deslatte, Hatch, and Stokan 2020). Moreover, local governments' capacity to cope with effect of a pandemic is pivotal for the effectiveness of federal or national pandemic strategies (Schomaker and Bauer 2020). Insights on the factors impacting local governments' development of adaptive capabilities are therefore paramount.

Theory

As environmental complexity has increased exponentially, the potential for uncertainty and abrupt, crisis-level shocks has increased (Lengnick-Hall and Beck 2005). Meyer (1982, 515) referred to such sudden and unprecedented events as environmental jolts and defined them as 'transient perturbations whose occurrences are difficult to foresee and whose impacts on organizations are disruptive and potentially inimical'. Meyer (1982) furthermore argued that organizational resilience is key to not only "survive" environmental jolts but also to exploit them, leading to the definition of organisational resilience as an organization's ability to 'effectively absorb, develop specific responses to and engage in transformative activities to capitalise on disruptive surprises that potentially threaten organisational survival' (Bracci and Tallaki 2021, 303). Organisational resilience thus not only refers to an organisation's capacity to deal with shocks and to return to a state of normalcy after an extreme event (i.e., bounce back), but also to its ability to reorganize and create an organization better suited to deal with future environmental jolts (i.e., bounce forward) (Anessi-Pessina et al. 2020; Kusumasari, Alam, and Siddiqui 2010; Zhang, Welch, and Miao 2018). Accordingly, scholars have made the distinction between "absorptive resilience" and "adaptive resilience" (Elston and Bel 2022). Absorptive resilience allows an organization to minimize the effect of an environmental jolt on its essential functions while adaptive resilience emerges after the initial stages of an environmental jolt and entails the development of new capabilities which should enable organizations to better deal with future challenges (Kahn et al. 2018). A systematic literature review conducted by Barasa, Mbau, and Gilson (2018) indicates that the resilience of organizations, whether absorptive or adaptive, is a function of the availability of material and financial resources, planning capacity, information management, governance processes, leadership practices, organizational culture, human capital, and the ability to establish and leverage social networks and collaboration.

Despite the importance of adaptive capacity building and despite previous experiences, many public organizations seem ill-prepared to deal effectively with extreme events (Zhang, Welch, and Miao 2018). Hood (1991) argues that public organizations' inability to effectively prepare for extreme events stems, in part, from the fact that public organizations' leaders need to simultaneously pursue different value sets which have specific, and often difficult to reconcile, system implications. Specifically, developing a resilient organization entails investing in the organization's capacity for endurance, robustness and adaptivity. This can be done by developing an organizational structure characterized by 'a relatively high degree of "slack" to provide spare capacity for learning or deployment in crisis [and] a control framework focused on input or process rather than measured output' (Hood 1991, 15). A perspective which seems to be at odds with the focus on efficiency and parsimony promoted by New Public Management-inspired definitions of "good management". Moreover, public choice theorists have argued that competitive democratic systems with a dominant attention for economizing and efficiency are not well suited to deal with intertemporal dilemmas, because politicians will not be motivated to implement policies that result in short-term costs and long-deferred benefits (Müller 2007; Rapeli et al. 2021). The inherent unpredictability of environmental jolts is thus expected to have a negative impact on politicians' willingness to invest in building organizational adaptive capacity. An effect which may be intensified by the fact that politicians populating the governing boards of many public organisations, as all people do, exhibit biases in judgments about risk probabilities (Camerer and Kunreuther 1989). Prospect theory (Kahneman and Tversky 1979), for example, states that individuals are assumed to weight probabilities nonlinearly whereby events with a relatively low probability (such as a pandemic) are often ignored. Hence, the doctrine of the more pressing question is expected to dominate (Letwin 2020) whereby 'things that almost certainly will not happen today will always be

pushed down the policy and political queue in favour of meeting short-term goals' (Gluckman and Bardsley 2021, 21).

Risk appraisal

Adaptive capacity building encompasses a wide range of preparedness activities. These activities can be grouped in two investment categories. The first investment category is oriented towards the development of management capacity allowing a better response to extreme events (e.g., staff courses in crisis management and communication, establishing coordination and consultative structures, performing risk analysis, and developing contingency plans). The second investment category is oriented towards increasing the operational capacity of the organization (e.g., stockpiling safety equipment, investing in communication and monitoring technologies, and investing in staff training in prevention measures) (Chikoto, Sadiq, and Fordyce 2013). However, given that institutional (motivational) mechanisms and cognitive biases are expected to constrain politicians' inclination to invest in adaptive capacity building, the question arises what sensemaking processes lead politicians to invest when dealing with detrimental low probability events. The literatures on health behaviour (e.g., protection motivation theory [PMT] (Rogers 1975)]), individuals' response to environmental hazards (e.g., Protective Action Decision Model [PADM] (Lindell and Perry 2012)]) and organizational adaptation planning (Comfort 2007; Dutton and Jackson 1987; Somers and Svara 2009) emphasize risk perceptions as a factor impacting behavioural change and protective intentions. Risk perceptions refer to an individual's subjective judgments about the likelihood of negative occurrences and determine which risks individuals pay attention to and act upon (Paek and Hove 2017). Risk perceptions, in turn, are argued to be determined by perceived vulnerability (i.e., the perceived probability of being exposed to hazardous events) and perceived severity (i.e., the perceived harmfulness of exposure to hazardous events). These two variables constitute a cognitive risk appraisal model whereby environmental stimuli are linked to action

through risk perception (Zhang, Welch, and Miao 2018). Based on these insights, we argue that local politicians' perceptions of their personal, their families' and their community's vulnerability for COVID-19 as well as the perceived severity of COVID-19 for the physical well-being of these parties can trigger a fear of recurrence (i.e., risk perception). This risk perception, then, fosters politicians' proclivity to invest in adaptive capacity building so that local governments can deal more effectively with the consequences of potential future pandemics. Hence, we hypothesize that:

H1: *Perceived severity of COVID-19 is positively related to pandemic risk perception which, in turn, has a positive relationship with local politicians' proclivity to invest in adaptive capacity building.*

H2: *Perceived vulnerability for COVID-19 is positively related to pandemic risk perception which, in turn, has a positive relationship with local politicians' proclivity to invest in adaptive capacity building.*

Psycho-social determinants

As the presented research model focuses on shock-induced adaptative behaviour (Miao et al. 2018), it analyses the sensemaking mechanisms underlying a risk-appraisal process based on environmental perceptions (Zhang, Welch, and Miao 2018). Hence, it is highly relevant to identify the factors impacting individual interpretations of external hazardous events. Based on the literatures on crisis management, emergency response and healthcare, we selected three clusters of factors: (1) sociodemographic factors, (2) event-related factors, and (3) socio-political attitudes.

Sociodemographic factors

A recent stream of literature suggests that the sociodemographic factors age, gender and education have an influence on COVID-19 risk perceptions. With respect to age, it is commonly

assumed that older adults are more risk-averse and risk-aware than their younger counterparts (Duell et al. 2018). Recent research on the relationship between age and COVID-19 risk perception confirms that older adults have a different perception of risk vulnerability and risk severity but also indicate that the relationship is more complex than expected (Rosi et al. 2021). Specifically, the perception of risk severity increases with age while the perception of risk vulnerability decreases (Bruine de Bruin 2021). The strong indications of age dependence in disease severity and mortality explains why older respondents perceive COVID-19 as more severe than younger aged respondents (Davies et al. 2020). The fact that older respondents are, in general, more compliant with preventative measures and thus have a lower perceived risk of being contaminated provides an explanation for the assumed negative relationship between age and perceived vulnerability (Gonzalez-Castro et al. 2021). Therefore, we hypothesize that:

H3a: *Age is negatively related to perceived vulnerability for COVID-19 and positively to perceived severity of COVID-19.*

A variety of studies have described gender differences in risk perception regarding health behaviours and indicate that women often report higher levels of risk concern than men (Hitchcock 2001). A relationship which is often explained by the assumption that men tend to display higher levels of "unrealistic optimism" whereby one tends to believe that personal health risks are lower than those of others and that one will be less prone to become ill or die if exposed to the same risk factors (Weinstein 1984). Aligned with these findings, recent research indicates that gender (i.e., female) correlates with higher perceived vulnerability to and severity of COVID-19 (Bruine de Bruin 2021; Galasso et al. 2020). Hence, we hypothesize that:

H3b: *A female gender is associated with a higher level of perceived vulnerability for and perceived severity of COVID-19.*

A high level of education has also been reported to be negatively related to COVID-19 risk perceptions. Previous findings suggest that educational level is positively associated with perceived and factual knowledge regarding COVID-19 which is negatively related to risk perceptions (Costa 2020; Rattay et al. 2021). It has also been argued that high educational levels act as a proxy for a higher socio-economic status which is positively related to access to health care (Feinstein 1993). Higher access to health care, in turn, is expected to have a negative impact on risk perceptions.

H3c: *A higher educational level is associated with a lower level of perceived vulnerability for COVID-19 and perceived severity of COVID-19.*

Event-related factors

A second cluster comprises factors tailored to the hazardous event under scrutiny. In this case, we focus on the impact of being prior diagnosed with COVID-19 and physical health status. Direct exposure to a hazardous event (in this case having been diagnosed with COVID-19) has been reported to positively associate with risk perception and the use of protective behaviours (Dryhurst et al. 2020). Physical health status is also expected to impact individuals' perceptions as self-reported chronic diseases have been found to be positively related to risk perceptions and associated behaviours (Laires et al. 2021).

H4a: *Being prior diagnosed with COVID-19 is associated with a higher level of perceived vulnerability for and perceived severity of COVID-19.*

H4b: *A poorer health status is associated with a higher level of vulnerability for and perceived severity of COVID-19.*

Socio-political attitudes

Given our focus on local politicians, we include a third cluster which focuses on political and societal attitudes by measuring political ideology and PSM. Political ideology (operationalized

as conservative-progressive) has been identified as a salient marker for divergent health behaviour, risk perceptions and the legitimate scope of government action in response to risk (Becher et al. 2021; Jost 2017). The bulk of the threat perception literature indicates that conservatives, in general, view the world as a more dangerous place and are thus more sensitive to a range of risks (Calvillo et al. 2020). Empirical evidence suggests that political ideology is indeed associated with divergent responses to the COVID19-crisis but that the identified relationships contradict the risk perception literature (Cakanlar, Trudel, and White 2022): Conservatives are less likely to take individual actions that might limit the risk of COVID-19 and are less likely to view COVID-19 as a major threat to public health (Calvillo et al. 2020; Geana, Rabb, and Sloman 2021). We follow the empirical evidence and hypothesize that:

H5a: *A more conservative ideology is associated with a lower level of perceived vulnerability for and perceived severity of COVID-19.*

As personal characteristics are deemed an important factor in crisis decision making (Deverell 2010), the developed conceptual model also assesses the impact of PSM. As PSM can be viewed as a pro-social orientation which leads individuals to serve the public interest and to engage in sacrificial behaviour without reciprocal benefits for themselves (Perry and Vandenabeele 2015), PSM is expected to relate to the perceived impact of COVID-19 on society and to intentions to alleviate negative effects and/or prevent their reoccurrence. Specifically, Broekema et al. (2019) argue that public leaders' motivation to pursue the public good (i.e., PSM) will foster crisis-induced instrumental learning. The latter is defined as a motivation to develop a deeper understanding of the crisis and, where appropriate, adapt organizational aspects that increase the organization's ability to prepare for future crises. Based on this rationale we hypothesize that:

H5b: *PSM is positively related to perceived vulnerability for and perceived severity of COVID-19.*

Methods

Research setting and data collection

Belgium adheres to the continental-Napoleonic tradition and applies a "fused local government system". Such system entails that federal, regional, provincial and local government tasks are expected to be carried out in an integrated manner (Wayenberg et al. 2022), meaning that local governments are involved in practically all fields of local policy-making, including public safety (Vos and Voets 2021). Moreover, over the last twenty years, New Public Management/Governance reforms have only further increased the roles and responsibilities of municipalities located in the northern region of Belgium vis-à-vis the other government levels (Vos and Voets 2021). Flanders (i.e., the northern Dutch speaking part of Belgium) consists of 300 municipalities governed by local councils. Members of local councils are elected for a period of 6 years and, officially, direct and control the executive (Wayenberg et al. 2022). Specifically, Flemish local councils are responsible for approving and implementing the resource allocation choices listed in the municipal strategic plan as well as for any adjustments made to the plan and, thus, are seen as 'active strategic actors who contribute to the strategic processes of the organization by engaging in specific strategic board roles (i.e., strategic participation and strategic control)' (Desmidt and Meyfroodt 2021, 761). Given that local governments are indispensable 'not only to execute federal/regional and provincial measures, but also to address crisis-related needs and concerns that were not spotted or neglected by higher levels' (Wayenberg et al. 2022, 285), they form a research setting well-suited to investigate politicians' willingness to invest in adaptive capacity building.

As a sampling frame containing the contact details of all elected local politicians (term of office 2019-2024) is not publicly available and our aim was to collect data in the early stages of the pandemic, a database developed by Desmidt, Meyfroodt, and George (2019) containing the contact details of the local politicians which were elected in the previous term (2013-2018)

was used. The invitation was sent on the 15th of May, 2020. In this period the Belgian government started to slowly relax the Covid-19 lockdown restrictions after imposing a national lockdown on the 18th of March, 2020. In total, 7,286 local politicians were invited via email to participate in an electronic survey. After three reminders, 934 local politicians had started and/or completed the survey, resulting in a final usable sample of 710 local politicians nested in 259 of the 300 municipalities. The first question of the survey was a selection question asking respondents to indicate if they were currently elected for the local council or not (56.6% or 402 respondents indicated being re-elected). Given that an independent samples T-test indicated that no significant differences in the scores for perceived vulnerability for COVID-19 (t[646]=-.644, p=.520), perceived severity of COVID-19 (t[449.681]=1.021, p=.308), pandemic risk perception (t[646]=.874, p=.383), and proclivity to invest in adaptive capacity building (i.e., management development [t[646]=.154, p=.878], and Operational resource development [t[646]=1.880, p=.061]) are observed when comparing re-elected local politicians with local politicians not being re-elected, no respondents were dropped. This resulted in a final usable sample of 710 local politicians nested in 259 of the 300 municipalities, whereby the socioeconomic characteristics of included municipalities do not differ statistically from the actual population ($\chi2$=.757, p=.384) nor the target population ($\chi2$=.582, p=.989). 58.2 percent of the respondents is male, reflecting the actual and target populations' gender distribution ($\chi2$=.333, p=.564) (Data on the target population regarding gender is made available by the autonomous federal institute for the equality of women and men). The average age of the respondents is 58 years. Details of the statistical tests comparing the sample and the actual and target population are reported in Table 1.

[Table 1 here]

Measures

Appendix A in the Supporting Information online provides detailed measurement information on the study's focal variables.

Proclivity to invest in adaptive capacity building

The dependent variables comprehend respondents' proclivity to invest in a range of adaptive capacity building activities and are based on the research of Chikoto, Sadiq, and Fordyce (2013) originally developed to measure disaster mitigation and preparedness. We make a distinction between activities oriented towards the development of management capacity to be able to better respond to extreme future events and investments to increase the operational resource capacity of the organization (see Table 2 for examples). To generate an index of proclivity to invest in management development (Cronbach's Alpha = .73) and operational resource development (Cronbach's Alpha = .70), responses per adaptive capacity domain are summed. The survey items used to measure proclivity to invest in management development and operational resource development are shown in Table 2.

[Table 2 here]

Pandemic risk perception

Risk perception comprises the perceived probability of being exposed to negative impacts and the appraisal of how harmful those impacts would be on the organization and is measured using two items (Spearman-Brown coefficient = .86) originally used to measure public managers risk perceptions regarding the organizational impact of extreme weather events (Zhang, Welch, and Miao 2018). The items were rephrased to focus on pandemics (e.g., "I am increasingly concerned about the impact of pandemics like COVID-19 on our society").

COVID-19 risk perception

Perceived vulnerability (Cronbach's Alpha = .92) and perceived severity of COVID-19 (Cronbach's Alpha = .88) are measured based on the research of Myers and Goodwin (2011). The original scales (focusing on contracting the swine flu) were generalized to focus on pandemics and were repeated to not only measure the perceived impact on the respondent but also on the respondent's family and community. Given that the respondent, family, and community dimensions of the perceived vulnerability (average r = .74) and perceived severity (average r = .77) constructs are highly intercorrelated and are viewed conceptually as interrelated dimensions of a higher-order construct and because a first-order and bifactor model do not fit the data well, perceived vulnerability for COVID-19 (measured by nine items, for example: "My chance of getting COVID-19 in the next few months is great" and "The chance of getting COVID-19 in the next few months is high for members of my community") and perceived severity of COVID-19 (measured by six items, for example "I will be very sick if I get COVID-19" and "My family members will be very sick if they get COVID-19") are operationalized as second-order constructs for which no dimension specific relationships are hypothesized.

Sociodemographic factors

The included sociodemographic factors are age (measured as a continuous variable in years), gender (measured as a dichotomous variable [male/female]) and education (measured in the two main categories [no higher education/higher education]).

Event-related factors

The included event-related factors are "being prior diagnosed with COVID-19" (measured as a dichotomous variable) and "physical health status", which is measured by the binary item "Do you have existing health issues that make COVID-19 infection a greater risk to your health?".

Socio-political attitudes

The included socio-political attitudes are "political ideology" and "PSM". Political ideology is measured using an 11-point political ideology scale (ranging from extreme conservative [0] to extreme progressive [10]) (Meyfroodt, Desmidt, and Goeminne 2019). PSM is measured using three items focusing on public service and prosocial behaviour (Cronbach's alpha = .70) from the shortened PSM scale which is frequently used in public management research (e.g., Wright, Moynihan, and Pandey 2012). The shortened scale is based on Perry's (1996) 40-item scale representing the affective or normative motives most closely associated with the altruistic appeal of public sector value.

Data analysis

Lavaan.survey (an R package using structural equation modelling) is used to analyse the data because – although the study's focus is on the individual-level of analysis – it allows to create cluster robust standard errors (Stapleton, McNeish, and Yang 2016) to correct for the fact that local politicians are nested in municipalities (Desmidt and Meyfroodt 2021). Given that we use SEM to fit a multiple mediator model, we follow the recommendations of Preacher and Hayes (2008) and allow residuals associated with parallel mediators (i.e., perceived vulnerability for and perceived severity of COVID-19) to covary. The measurement and structural model are analysed using maximum likelihood estimation with bootstrapping (5000 bootstrapped covariance matrices) and are – based on a power analysis for structural equation models (Moshagen and Erdfelder 2016) – associated with a power larger than 99.99% to reject a wrong model. Missing data were imputed using the single imputation expectation-maximization method (EM) because data are missing completely at random (Little MCAR test Chi-square=6480.101, df=7767, p=1.000) and the missing rate is limited (1.87%).

Results

Table 3 provides insights into the variables' descriptive statistics and presents the bivariate statistics of the study's measures. Results from the bivariate analysis not only indicate the relevance of perceived vulnerability for and severity of COVID-19 with regard to local politicians' response (i.e., pandemic risk perception, and the proclivity to invest in adaptive capacity building) but also of the psycho-social determinants (i.e., sociodemographic factors, event-related factors, and socio-political attitudes). No problematic Pearson correlations (>.800) are observed and the variance inflation factor values do not exceed 1.893, indicating that multicollinearity is not expected to be an issue.

[Table 3 here]

The analysis of the latent variable model consists of two steps: The first step assesses the fit of the measurement model to the data using a confirmatory factor analysis (CFA) and in the second step the relationships between the constructs are estimated through a structural model. The standardized coefficients are reported in this section to ease interpretation, while Table 4 also reports the non-standardized coefficients to allow the comparison of results across studies.

The measurement model

The fit indices indicate that the developed model captures the pattern of relationships found in the data adequately: normed chi-square=2.424 (<5), $\chi^2 384=930.917$ ($p<.001$) with TLI=.925 (≥.90), CFI=.934 (≥.90), RMSEA=.050 (<.07 with CFI ≥.90) and SRMR=.048 (<.08 with CFI≥.90) (Hair et al. 2010). All item factor loadings are significant and exceed a value of .5 (average λ=.76) (see Appendix A in the Supporting Information online).

The structural model

Given that the developed theoretical model is a path model for which mediations can be assessed, we estimated a structural model including not only the hypothesized pathways allowing to calculate the indirect effects, but also the direct effects needed to assess any mediations. The estimated model indicates that there are significant direct effects departing from politicians' PSM. Given that a structural model including the significant direct effects outperforms the model without these effects, we discuss the extended structural model. Table 4 reports the (un)standardized coefficients and significance of the relationships of the structural model (normed chi-square=2.442 [<5], $\chi^2$308=752.212 [p<.001] with TLI=.928 [≥.90], CFI=.939 [≥.90], RMSEA=.051 [<.07 with CFI≥.90] and SRMR=.051 [<.08 with CFI≥.90]) (Hair et al. 2010), while Figure 2 visualizes the significant pathways showing the standardized path coefficients.

[Table 4 here]

[Figure 2 here]

The results provide support for hypothesis 1, but not for hypothesis 2: only perceived severity of COVID-19 has a positive impact on pandemic risk perception (β=.617, p<.001) which, in turn, has a positive impact on local politicians' proclivity to invest in adaptive capacity building (Management development: β=.287, p<.001; Operational resource development: β=.246, p<.001). Although there is no significant direct effect of perceived severity of COVID-19 on adaptive capacity – management development, the results from a mediation analysis (see Appendix B in the Supporting Information online 1 for detailed information) show that the relationship between perceived severity of COVID-19 and adaptive capacity – management development is mediated by pandemic risk perception (indirect effect size=.177, CI[.396, 1.071]). The mediation analyses also indicate that both the positive direct effect of perceived severity of COVID-19 on adaptive capacity building – operational resource

development (β=.226, p=.002) and the indirect effect via the impact of pandemic risk perception (effect size=.152, CI[.301, 1.130]) are significant.

Regarding the impact of sociodemographic factors, the results indicate that age has a significant positive impact on perceived severity of COVID-19 (β=.126, p=.001) and a negative significant impact on perceived vulnerability (β=-.124, p=.005) (in support of H3a). The results furthermore indicate that gender does not significantly impact the study's variables as female and male politicians do not seem to differ in their perceptions of the analysed COVID-19 related variables (not in support of H3b). Education has no significant impact on perceived vulnerability for COVID-19 (β=.-.032, p=.371), but has a significant negative impact on perceived severity (β=-.169, p<.001) (partially in support of H3c). The event-related factor "being prior diagnosed with COVID-19" has a significant positive impact on perceived vulnerability for COVID-19 (β=.191, p<.001) but not on perceived severity of COVID-19 (β=-.026, p=.566) (partially in support of H4a). The results also indicate that physical health status is a significant predictor of perceived vulnerability for (β=.177, p<.001) and perceived severity of COVID-19 (β=.218, p<.001) (in support of H4b): Local politicians with a physical health status related to a higher occurrence of disease severity and mortality after contamination with COVID-19 experience higher levels of vulnerability for and severity of COVID-19. A last set of predictors focuses on the impact of local politicians' ideological and societal attitudes. The study results indicate that conservatism is associated with lower perceptions of COVID-19's severity (β=-.132, p=.004), but not with perceived vulnerability (β=-.021, p=.651) (partially in support of H5a). We find support for H5b as the results indicate that PSM has a positive significant impact on perceived severity of (β=.319, p<.001) and vulnerability for COVID-19 (β=.194, p<.001). Moreover, the findings point to a positive significant impact of PSM on pandemic risk perception (β=.196, p<.001) and local politicians' intentions to invest in management capacity development (β=.179, p<.001).

Discussion

Policy-makers throughout history have stated that "you never want a serious crisis to go to waste" because external shocks often provide more latitude for change and can generate a momentum that stimulates a process of reflection and allows to challenge the norm. However, insights on the sensemaking processes that lead politicians to engage in such processes of crisis-induced learning are, to great extent, missing (Barbera et al. 2021). The study at hand addresses this research gap by analysing how sociodemographic and event-related factors, as well as socio-political attitudes associate with risk perceptions and how, in turn, these risk perceptions relate to local politicians' inclination to invest in adaptive capacity building. Implications for theory are discussed below.

First, the findings add to the increasing body of literature indicating that 'how [political] decision-makers interpret the nature of a crisis significantly influences their preferred response' (van der Voet 2022, 368). Specifically, the study results indicate that politicians' risk perceptions relate positively to their inclination to invest in management and operational resource development. In contrast to perceived vulnerability, perceived severity seems to be the primary catalyst of politicians' pandemic risk perceptions and intended behaviour. The fact that perceived vulnerability did not emerge as a significant predictor of intended behaviour is aligned with the conclusions of PMT meta-analyses (Floyd, Prentice-Dunn, and Rogers 2000; Milne, Orbell, and Sheeran 2002) as well as recent research on how perceived vulnerability for COVID-19 impacts protection behaviour (Kowalski and Black 2021; Okuhara, Okada, and Kiuchi 2020). The relatively high explanatory power of perceived severity probably roots in the expectation value of risk perceptions whereby a higher relative importance is attributed to perceived severity as, in general, 'people are more afraid of risks of very low probability and great severity than they are of risks which are more likely but less severe' (Adams and Smith 2001, 747).

Second, as the findings suggest that perceived severity is the main driver of politicians' pandemic risk perceptions and intended behaviour, the question arises what factors impact perceptions of perceived severity. Although there is 'a considerable body of work in political science that describes high level elected politicians as strategic, cool-headed, purposive utility maximisers with full knowledge [,and] stable and transitive preferences' (Sheffer et al. 2018, 303), the findings of this study suggest that individual characteristics, attitudes and personal experiences help to explain the heterogeneity in risk perceptions. Politicians who are older, have a precarious physical health, and/or higher levels of PSM are more likely to report higher levels of perceived severity. In contrast, educational level and political orientation (conservatism) are negatively related to perceived severity. Although it was expected that individual differences impact sensemaking processes and political decisions, the strong relationship between PSM and local politicians' risk perceptions catches the eye. Ye, Liu, and Zhang (2021) found similar relationships when analysing the impact of PSM on public servants' likelihood to actively carry out tasks of epidemic prevention and control. Individuals with a high level of PSM – a general motivation linked to societal altruism – thus 'seem to place a greater value on intrinsically rewarding actions, such as service to society, the nation, and public interests' (Zhang, Welch, and Miao 2018, 3). Although politicians are often presumed to be driven by a strong preference to maximize individual utility, there is a strong body of literature indicating that (local) politicians are also strongly motivated by a commitment to the public interest and wish to serve society (Pedersen 2014; van der Wal 2013).

Third, although individual characteristics and risk perceptions seem to be significant predictors of local politicians' inclination to invest in adaptive capacity building, the results also suggest that this relationship is more complex than expected. While politicians' proclivity to invest in capacity building seems to be the result of a (biased) risk assessment process driven by their perceptions of the extent to which pandemics will impact society, the results also

indicate that individual characteristics and perceptions impact politicians' response preferences. Specifically, there is a direct positive relationship between perceived severity and inclination to invest in operational resource development (but not with inclination to invest in management development). Hence, politicians who perceive a larger impact of COVID-19 on society are more likely to take immediate action and invest in operational resource development. In contrast, there is a direct and positive relationship between PSM and local politicians' intention to invest in management capabilities, but not with intentions to invest in operational resources. According to Broekema et al. (2019) the divergent relationship of PSM with the two types of capacity building could be due to the fact that the altruistic component of PSM is expected to foster instrumental learning. Instrumental learning is typically geared towards structural improvements in an organization and entails the acquisition of new knowledge and the transfer of this new knowledge into organizational adjustments and process optimization (Broekema et al. 2019). These (sensemaking) processes entail a lot of effort from politicians which is not easily visible for citizens and rarely results in immediate benefits or improvements. Hence, Broekema et al. (2019, 202) argue that politicians with a strong motivation to serve the public good are more likely to make such investments, rather than investments in physical resources, and 'to be most concerned with making structural improvements in the organization that increase the organization's ability to prepare for and prevent future crises'.

Conclusion, avenues for further research and practical implications

To summarize, the study findings provide evidence that risk perceptions, and especially perceived severity, are crucial factors in explaining heterogeneity in politicians' intended organizational responses to extreme events. Although the collected data focuses on politicians' perceptions of the COVID-19 pandemic, the findings are likely to capture common patterns on how politicians make sense of environmental jolts and how these interpretations relate to intended adaptive capacity building. The results indicate that politicians deal with the

uncertainty and complexity associated with environmental jolts by adopting a process of judgment for decision making and strategy selection. Such judgement is, to a large extent, based on perceptions of how harmful environmental jolts are for society. Impact perceptions are, in turn, related to sociodemographic and event-related variables as well as socio-political attitudes (PSM in particular). The results thus provide further evidence that risk perceptions are a biased appraisal of information (Weinstein 2001). Hence, insights on how these mechanisms impact, and potentially even bias policy decisions, are highly relevant as politicians could be nonrepresentative representatives (Sheffer et al. 2018). The fact that the members of local councils are, on average, older and higher educated than their constituents could lead to a consensus bias whereby council members assume that their beliefs are relatively widespread through the general population. They could see their own behavioural choices and judgments as relatively common and appropriate to existing circumstances (Ross, Greene, and House 1977). Hence, future research on policy decision-making processes triggered by environmental jolts should take socio-demographic and event-related variables as well as socio-political attitudes into account and assess if these variables relate to choice anomalies. Ideally, these relationships should be analysed from an individual, group and multilevel perspective. For example, does the degree to which a politician is personally affected by an event impact policy preferences (e.g., Is the disease course after an infection with COVID-19 related to politicians' pandemic-related policy? Does an asymptomatic disease course impact politicians' risk perceptions?)? But also, can other individual level variables help explain the mechanisms through which politicians' attitudes are likely to affect capacity-building (e.g., whether or not respondents are a member of the finance committee or the emergency management committee; the number of years that a respondent has served as a member of the ruling government)? To what extent do group characteristics result in group thinking and how will this affect policy preferences (e.g., Do councils with a high number of councillors with asymptomatic disease

courses take different policy decisions in comparison to councils with a high number of councillors with prior health issues? Are divergent socio-demographic characteristics and event-related experiences within a council related to cognitive and/or affective conflict? Does the socio-demographic composition of councils impact pandemic-related attitudes of individual politicians?)?

Practically, the findings draw our attention to the question to what extent politicians are able to take adequate decisions in extreme situations given the impact of their personal situation on their risk perceptions. Although politicians are expected to make informed decisions on the basis of a thorough analysis of facts and logical and rational arguments (George et al. 2018), we have to acknowledge that in times of high uncertainty and complexity associated with extreme events the limited availability of information, changing (academic and political) insights, as well as the applicability of existing analytic systems, decision-makers will rely on a more fragmented process of sensemaking, attribution, and strategy selection (Zhang, Welch, and Miao 2018). Hence, as sensemaking processes will inevitably be impacted by personal characteristics, attributes and experiences, it is important to make politicians aware of these unconscious biases and their potential impact on policy outcomes. One potential avenue to minimize the impact of such "personal experience" bias could be to confront politicians with divergent information sources and perspectives and to ask them to explicate their perceptions as this could help to reframe the situation at hand. Being confronted with various perspectives could help alleviate the impact of confirmation bias (whereby one focuses on information that confirms existing beliefs) and affinity bias (whereby one evaluates the perspectives of individuals similar to one's self more positively).

Limitations

The study results indicate that politicians' sociodemographic factors, COVID-19 related experiences and (political) attitudes associate with risk perceptions and politicians' policy

preferences. As such, we shed light on the sensemaking mechanisms underlying the decisions public leaders take in response to crises. The results underline the need for more insights on the factors, biases and anomalies characterizing decision making by elected politicians (Battaglio Jr. et al. 2019; Sheffer et al. 2018). Notwithstanding the relevance of these findings, some limitations should be kept in mind when interpreting the findings. First, despite the fact that the sample is believed to be representative for the population with regard to some individual and municipal level characteristics and that the used sample contains first time politicians for the term in office 2013-2018, we have to acknowledge that newly first-time politicians for the term in office 2019-2024 are not represented in the study. Second, the empirical analysis focuses on data collected within Flemish local authorities which may reduce generalizability of the findings to other organizations. Moreover, the potential impact of cross-cultural differences in risk perception and/or ideological heterogeneity between countries necessitates testing the research model based on data derived from other settings to establish its external validity. Third, data was collected during the first COVID-19 wave when respondents were in lock-down. Additional research is needed to assess if and how the subsequent COVID-19 waves, the availability of vaccines and the increasing number of respondents having to deal first-hand with COVID-19 infection influences risk perceptions. Fourth, given that the selected cross-sectional research design is prone to presence of endogeneity, the magnitude of the estimated relationships should be interpreted with care. Moreover, the empirical model itself gives no proof of causation and merely suggests a pattern of relationships that is observable between variables consistent with the theory we have advanced. Fifth, although ex-ante precautions (e.g., use of previously published measures having a high tested scale reliability; guaranteeing anonymity; using buffer items to install lag time between constructs) were implemented and a post-hoc one factor analysis and common latent factor test did not indicate that common source bias influences model estimation, its presence can never be entirely excluded.

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Figure 1. Conceptual model.

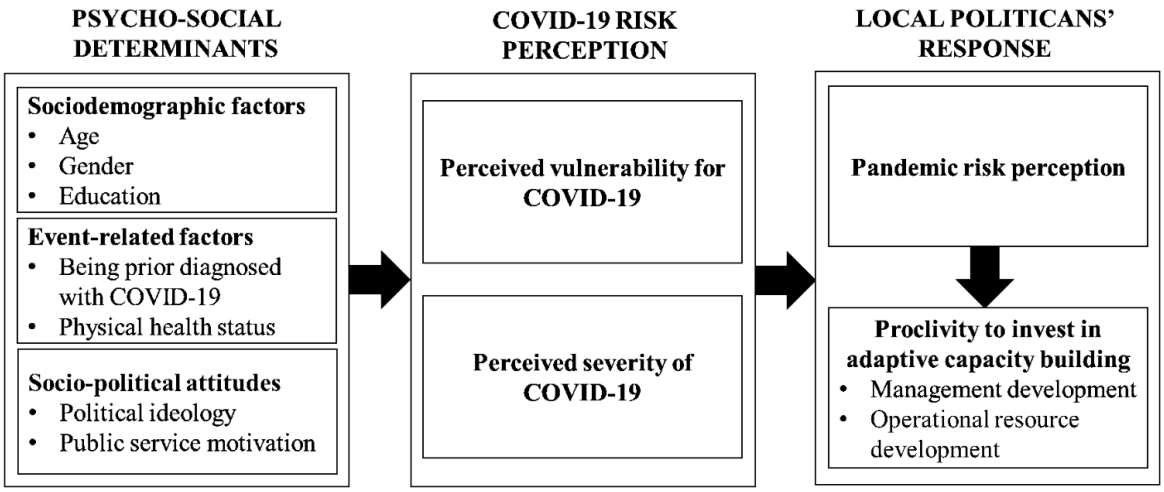
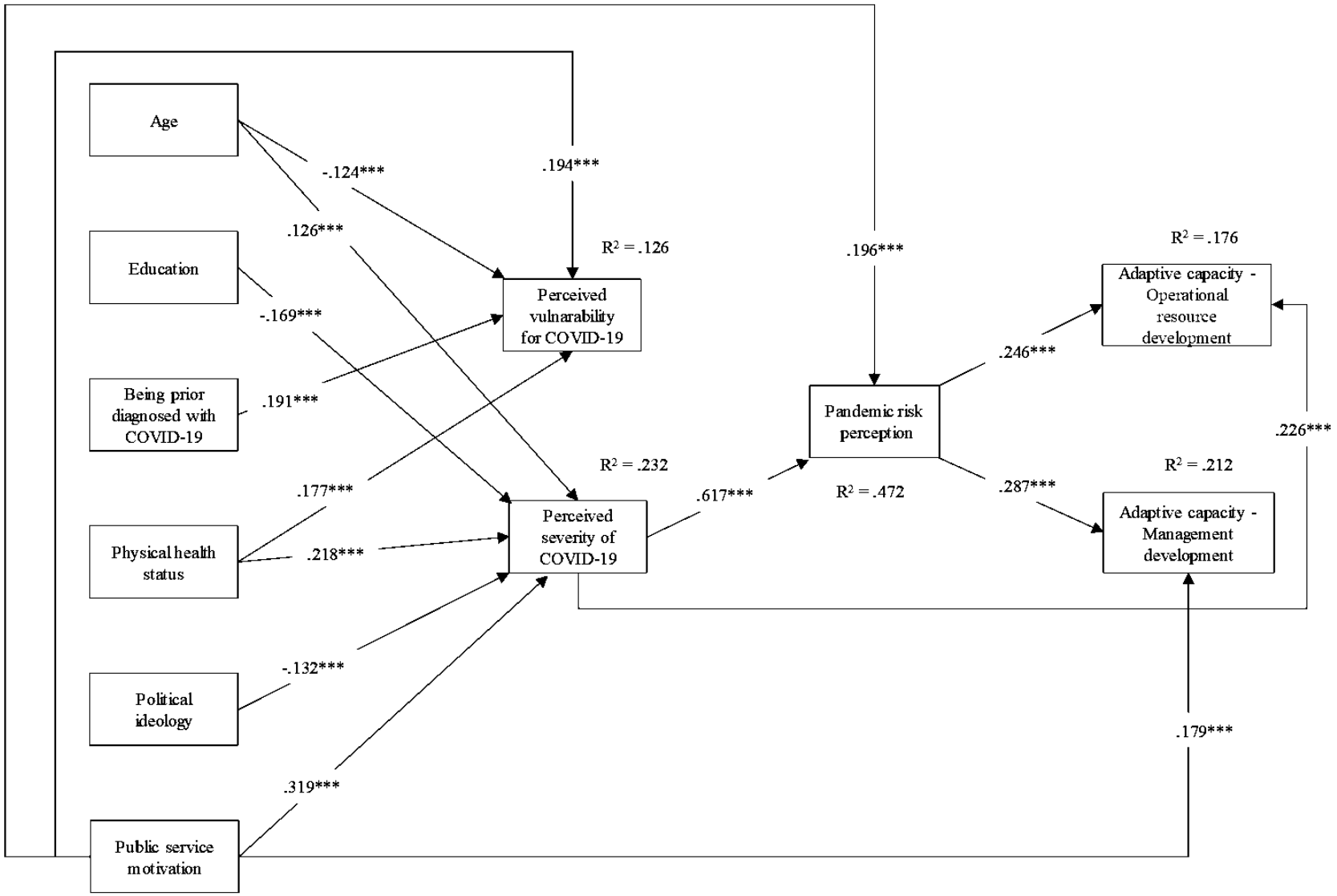


Figure 2. Significant pathways and path coefficients.



Only significant paths and standardized coefficients are shown: ** p<.05; *** p<.01
N = 710

Table 1. Socioeconomic and individual characteristics of the respondents and the population.

	Respondents	Actual population: Elected politicians (term in office 2013-2018)	Significance*	Target population: Elected politicians (term in office 2019-2024)	Significance*
Gender			$\chi^2 = .333$, p = .564 (H0 is not rejected)		$\chi^2 = .333$, p = .564 (H0 is not rejected)
Male	58.20%	63.80		61.60%	
Female	41.80%	36.20		38.40%	
Municipal clusters			$\chi^2 = .757$, p = .384 (H0 is not rejected)		$\chi^2 = .582$, p = .989 (H0 is not rejected)
Residential municipalities	26.36%	26.95%		26.95%	
Rural municipalities	29.07%	31.49%		31.49%	
Municipalities with concentrated economic activities	14.73%	12.99%		12.99%	
Agglomeration municipalities	14.34%	13.64%		13.64%	
Central cities	13.57%	12.34%		12.34%	
Tourist municipalities	1.94%	2.60%		2.60%	

* Chi-square test

Table 2: Proclivity to invest in adaptive capacity building – survey items of the dependent variables

Local politicians' response	**Survey items**
Proclivity to invest in adaptive capacity building	To be prepared for future pandemics our city council should allocate resources (even if this would entail that other investments have to be cancelled) to …
Management development	… create financial reserves that allow to adequately respond to future pandemics. … to have managers of municipal services take courses in crisis management and communication. … to perform internal analyses on how the municipal services can function adequately during a pandemic. … to develop consultative structures (e.g., a crisis committee) that can coordinate the municipal approach in short notice in case of a pandemic. … to create detailed plans so that the municipality immediately knows how to react in case of a new pandemic.
Operational resource development	… to stockpile safety equipment (e.g., face masks for all inhabitants of a municipality). … to purchase technologies that allow to monitor and control the social distancing measures and non-essential travel (e.g., smart cameras) … to purchase technologies that allow to communicate during lock-down measures with inhabitants and other stakeholders of the municipality. … to make buildings multifunctional to ensure their usage during a pandemic (e.g., converting community centres into Corona test sites). … to provide municipal staff with training programs on how to prevent getting infected with COVID-19 and how to respond to inhabitants of the municipality that are / could be infected with COVID-19.

Table 3. Correlation matrix.

		Mean	SD	Min.	Max.	Correlation matrix											
						1a.	1b.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1a.	AC - Management development	26.13	4.06	9.00	35.00	(.73)											
1b.	AC – Operational resource development	23.78	4.62	5.00	35.00	.643**	(.70)										
2.	Pandemic risk perception	4.76	1.26	1.00	7.00	.385**	.362**	(.85)									
3.	Perceived vulnerability for COVID-19	4.01	.92	1.00	6.83	.133**	.167**	.284**	(.92)								
4.	Perceived severity of COVID-19	4.30	.96	1.00	7.00	.283**	.327**	.544**	.467**	(.88)							
5.	Age	57.95	11.22	26.00	81.00	.104**	.171**	.087*	-.153**	.164**							
6.	Gender[1]	.37	.48	0.00	1.00	.035	.075	.030	.046	-.016	-.127**						
7.	Education[2]	.77	.42	0.00	1.00	-.064	-.095*	-.136**	.006	-.152**	-.207**	.064					
8.	Being prior diagnosed with COVID-19[3]	.11	.30	0.00	1.00	.019	.010	-.037	.185**	-.034	-.128**	-.019	.055				
9.	Physical health status (unfitness)[4]	.21	.41	0.00	1.00	.035	.056	.061	.155**	.226**	.130**	-.126**	-.073	.037			
10.	Political ideology	5.98	1.60	0.00	10.00	.067	-.044	.042	.035	-.069	-.023	.060	-.015	.012	-.016		
11.	Public service motivation	5.58	.83	1.00	7.00	.265**	.115**	.268**	.173**	.201**	-.061	-.017	.039	.029	-.008	.241**	(.70)

N = 710 local politicians

SD = Standard deviation; AC = Adaptive capacity

[1] Male = reference category; [2] No higher education = reference category; [3-4] No = reference category

Cronbach's alpha score between parentheses

* p<.05; ** p<.01

Table 4. Path coefficients.

	Perceived vulnerability for COVID-19					Perceived severity of COVID-19				
Antecedent	B	*RSE*	β	p	95% CI	B	*RSE*	β	p	95% CI
Age	-.011***	*.004*	-.124***	.005	[-.019, -.003]	.011***	*.003*	.126***	.001	[.004, .017]
Gender	.143	*.088*	.104	.067	[-.029, .316]	.118	*.082*	.058	.151	[-.043, .278]
Education	-.077	*.086*	-.032	.371	[-.246, .092]	-.389***	*.095*	-.169***	<.001	[-.575, -.202]
Being prior diagnosed with COVID-19	.623***	*.165*	.191***	<.001	[.300, .946]	-.083	*.144*	-.026	.566	[-.365, .200]
Physical health status (unfitness)	.446***	*.105*	.177***	<.001	[.241, .651]	.527***	*.114*	.218***	<.001	[.304, .750]
Political ideology	-.013	*.029*	-.021	.651	[-.070, .044]	-.079***	*.028*	-.132***	.004	[-.133, -.025]
Public service motivation	.309***	*.082*	.194***	<.001	[.148, .470]	.488***	*.076*	.319***	<.001	[.339, .637]
	R^2 = .126					R^2 = .232				

	Pandemic risk perception				
Antecedent	B	*RSE*	β	p	95% CI
Perceived vulnerability for COVID-19	-.036	*.059*	-.034	.537	[-.152, .079]
Perceived severity of COVID-19	.687***	*.077*	.617***	<.001	[.536, .839]
Public service motivation	.333***	*.082*	.196***	<.001	[.173, .494]
	R^2 = .472				

	Adaptive capacity - Management development					Adaptive capacity – Operational resource development				
Antecedent	B	*RSE*	β	p	95% CI	B	*RSE*	β	p	95% CI
Pandemic risk perception	1.067***	*.225*	.287***	<.001	[.625, 1.509]	1.041***	*.274*	.246***	<.001	[.505, 1.578]
Perceived vulnerability COVID-19	-.005	*.215*	-.001	.981	[-.426, .415]	-.013	*.241*	-.003	.957	[-.485, .458]
Perceived severity COVID-19	.405	*.288*	.098	.160	[-.160, .970]	1.064***	*.346*	.226***	.002	[.386, 1.741]
Public service motivation	1.132***	*.324*	.179***	<.001	[.497, 1.766]	-.195	*.410*	-.027	.635	[-.999, .609]
	R^2 = .212					R^2 = .176				

N = 710 local politicians

RSE = (cluster) robust standard error; 95% CI = 95% Confidence Interval (5000 bootstrap samples)

** p<.05; *** p<.01

Supplementary material: Appendix A. Measurement information on the study's variables

Table A1. Measurement information on the psycho-social determinants.

Constructs/variables	Items/components	(λ_{yi})[1]	Measurement	Reference
Sociodemographic factors:				
Age	How old are you (in years)?	-	In years	
Gender	What is your gender?	-	Male = 1 / Female = 2 / Other = 3 / Male nor female = 4 and recoded based on responses (i.e. no responses in categories 3 and 4) into Male = 0 / Female = 1	
Education	What is your highest obtained degree?	-	1 = Highschool / 2 = University college short type (bachelor) / 3 = University college long type (master) / 4 = University (master) / 5 = PhD / 6 = none of the above and recoded based on responses into No higher education = 0 / Higher education = 1	
Event-related factors:				
Being prior diagnosed with COVID-19	Do you think that you have been or are you diagnosed with COVID-19?	-	No = 0 / Yes = 1	
Physical health status	Do you have existing health issues that make COVID-19 infection a greater risk to your health?	-	No = 0 / Yes = 1	
Socio-political attitudes:				
Political ideology	Where would you position yourself on the ideological scale below?	-	11-point ideological scale	Based on Meyfroodt, Desmidt, and Goeminne (2019)
Public service motivation (Cronbach's alpha = .70)	Meaningful public service is very important to me.	.60	Latent construct based on 7-point Likert-type scale items	Based on Wright, Moynihan, and Pandey (2012)
	Making a difference in society means more to me than personal achievements.	.72		
	I am prepared to make sacrifices for the good of society.	.67		

[1] Confirmatory Factor Analysis – Standardized factor loadings

Table A2. Measurement information on COVID-19 risk perception.

Constructs/variables	Items/components	(λ_{yi})[1]	Measurement	Reference
Perceived vulnerability for COVID-19 (Cronbach's alpha = .92)	**Perceived vulnerability - individual dimension**	**.94**	Latent second-order construct based on 7-Point Likert-type scale items	Based on Myers and Goodwin (2011)
	My chance of getting COVID-19 in the next few months is great.	.90		
	I am worried about the likelihood of getting COVID-19 in the near future.	.85		
	Getting COVID-19 is currently a possibility for me.	.71		
	Perceived vulnerability - family dimension	**.90**		
	My family members' chance of getting COVID-19 in the next few months is great.	.77		
	I am worried about the likelihood of my family members of getting COVID-19 in the near future.	.90		
	Getting COVID-19 is currently a possibility for my family members.	.85		
	Perceived vulnerability - community dimension	**.75**		
	The chance of getting COVID-19 in the next few months is high for members of my community.	.87		
	I am worried about the likelihood of members of my community of getting COVID-19 in the near future.	.82		
	Getting COVID-19 is currently a possibility for members of my community.	.80		
Perceived severity of COVID-19 (Cronbach's alpha = .88)	**Perceived severity - individual dimension**	**.82**	Latent second-order construct based on 7-Point Likert-type scale items	Based on Myers and Goodwin (2011)
	Complications from COVID-19 are serious for me.	.96		
	I will be very sick if I get COVID-19.	.88		
	Perceived severity - family dimension	**.84**		
	Complications from COVID-19 are serious for my family members.	.86		
	My family members will be very sick if they get COVID-19.	.90		
	Perceived severity - community dimension	**.98**		
	Members from my community will be very sick if they get COVID-19.	.63		
	My community members are afraid of getting COVID-19.	.73		

[1] Confirmatory Factor Analysis – Standardized factor loadings

Table A3. Measurement information on the local politicians' response.

Local politicians' response	Items/components	(λ_{yi})[1]	Measurement	reference
Pandemic risk perception	I am increasingly concerned about the impact of pandemics like COVID-19 on our society.	.78	Latent construct based on 7-point Likert-type scale items	Based on Zhang, Welch, and Miao (2018)
	I am increasingly concerned about the impact of pandemics like COVID-19 on our health.	.96		
Proclivity to invest in adaptive capacity building	To be prepared for future pandemics our city council should allocate resources (even if this would entail that other investments have to be cancelled) to …			
Management development (Cronbach's alpha score = .73)	… create financial reserves that allow to adequately respond to future pandemics.	.57	Responses on the 7-point Likert-type scale items are summed to create an index.	Based on Chikoto, Sadiq, and Fordyce (2012)
	… to have managers of municipal services take courses in crisis management and communication.	.51		
	… to perform internal analyses on how the municipal services can function adequately during a pandemic.	.59		
	… to develop consultative structures (e.g., a crisis committee) that can coordinate the municipal approach in short notice in case of a pandemic.	.68		
	… to create detailed plans so that the municipality immediately knows how to react in case of a new pandemic.	.64		
Operational resource development (Cronbach's alpha score = .70)	… to stockpile safety equipment (e.g., face masks for all inhabitants of a municipality).	.55	Responses on the 7-point Likert-type scale items are summed to create an index.	Based on Chikoto, Sadiq, and Fordyce (2012)
	… to purchase technologies that allow to monitor and control the social distancing measures and non-essential travel (e.g., smart cameras)	.54		
	… to purchase technologies that allow to communicate during lock-down measures with inhabitants and other stakeholders of the municipality.	.63		
	… to make buildings multifunctional to ensure their usage during a pandemic (e.g., converting community centres into Corona test sites).	.62		
	… to provide municipal staff with training programs on how to prevent getting infected with COVID-19 and how to respond to inhabitants of the municipality that are / could be infected with COVID-19.	.63		

[1] Confirmatory Factor Analysis – Standardized factor loadings

Supplementary material: Appendix B. Mediation analysis

Table B1. Mediations – main model.

Path	Direct effect			Indirect effect			Total effect		
	β	p	95% CI	β	p	95% CI	β	p	95% CI
PV→RP→ACMd	-.001	.981	[-.426, .415]	-.010	.539	[-.163, .085]	-.011	.851	[-.502, .414]
PS→RP→ACMd	.098	.160	[-.160, .970]	.177***	<.001	[.396, 1.071]	.275***	<.001	[.621, 1.656]
Total effect on ACMd	---	---	---	---	---	---	.264***	<.001	[.656, 1.534]
PV→RP→ACOrd	-.003	.957	[-.485, .458]	-.008	.530	[-.156, .080]	-.011	.840	[-.546, .444]
PS→RP→ACOrd	.226***	.002	[.386, 1.741]	.152***	.001	[.301, 1.130]	.378***	<.001	[1.201, 2.358]
Total effect on ACOrd	---	---	---	---	---	---	.366***	<.001	[1.233, 2.224]

PV = Perceived vulnerability for COVID-19; PS = Perceived severity of COVID-19.
RP = Pandemic risk perception.
ACMd = Adaptive capacity - Management development; ACOrd = Adaptive capacity – Operational resource development.
95% CI = 95% Confidence Interval (5000 bootstrap samples).

Appendix A – References

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