Article

Exploring European Citizens' Resilience to Misinformation: Media Legitimacy and Media Trust as Predictive Variables

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Abstract
Building on the notion of an intangible resource, this research conceptualizes resilience as an intangible resource that can be ascribed to countries (governments and media) and explores its sources. After presenting the conceptual framework, the study uses cross-national comparable data from Eurobarometer to (a) determine whether a factor called "resilience to misinformation" can be composed of citizens' attitudes and behaviors toward misinformation and be conceptualized and operationalized as an intangible asset, and (b) determine the extent to which other intangible assets regarding the media (legitimacy and trust) help predict resilience to misinformation. Based on statistical techniques, findings show that (a) it is possible to conceptualize "resilience to misinformation" as an intangible asset comprised of several items related to citizens' awareness of misinformation, acknowledgment of the negative impact, and the development of skills to identify misinformation; (b) this intangible asset can be analyzed in relation to intangibles that derive from media performance, such as media legitimacy and trust in the media; and (c) media's intangible assets seem to be more predictive of "resilience to misinformation" than sociodemographic variables. Based on the findings, this research proposes a conceptualization of "resilience to misinformation" as an intangible resource in the public sector. In addition, it highlights recommendations for the mainstream media on how to manage their intangible value while contributing to resilience to misinformation.

1. Introduction

While scholars in communication and journalism have studied in detail how misinformation is produced and disseminated and how citizens interact with misleading content, few studies have explored this phenomenon within the framework of intangible assets. This article seeks to conceptualize and operationalize resilience to misinformation as an intangible resource that can be managed by European governments. In addition, this research analyzes the relationship between resilience to misinformation and intangible resources, with a particular focus on intangible resources that emerge from the relationship between individuals and media. This framework allows us to identify if intangible assets associated with media help explain resilience to misinformation. From this perspective, the aim of this research is to explore how intangible resources may facilitate or inhibit citizens' resilience to misinformation.

The concept of misinformation is used to refer to the phenomenon in overall terms, as it is the preferred term used by the literature (García-Borrego & Casero-Ripollés, 2022). We are aware that the phenomenon includes several types of untruthful information (such as false information, misleading content, conspiracy theories, post-truth discourses, among others), whether or not the

content was deliberatively produced to deceive or harm. In this sense, this research follows Fetzer's definition of misinformation as "false, mistaken, or misleading information" (2004, p. 231). Regarding intangible resources, previous research with data from Spain has found a factor that synthesizes information about how people react to misinformation and explored relationships between that factor and two intangible resources, engagement, and institutional trust (Rodríguez-Pérez & Canel, 2022). This article builds on those findings to examine the phenomenon in other European countries and explore relationships between that possible factor and intangible resources derived from the interaction between individuals and the media.

This article has three objectives: (a) to determine whether a factor called "resilience to misinformation" can be composed of European citizens' attitudes and behaviors toward misinformation and ascertain whether this factor can be conceptualized as an intangible asset that European governments and media can influence; (b) it is intended to explore the relationship between "resilience to misinformation" with intangible assets derived from individuals and media performance; and (c) to study the relationships between intangible resources related to the media (more specifically, how citizens assess their legitimacy and trust) and "resilience to misinformation" to make recommendations that help media strengthen their intangible value and fight against misinformation and provide governments with insight on the role of media in the development of "resilience to misinformation." This article analyzes data from Eurobarometer, which includes data from 27 European countries.

This article is structured as follows. The theoretical framework delves into the concept of resilience to misinformation and why it is considered an intangible resource. Next, we explain how intangible resources (legitimacy and trust) derived from media performance are related to resilience to misinformation. After describing the research design, results and conclusions are presented.

2. Resilience to Misinformation as an Intangible Resource

This article studies resilience to misinformation as an intangible resource. The theory of intangible assets in the public sector (Canel & Luoma-aho, 2019) establishes that the management of intangible assets can help bridge gaps between public sector organizations and the citizens they serve. Concepts such as reputation, trust, engagement, intellectual capital, and legitimacy are considered intangible resources that are essential for an organization's survival.

The concept of intangible assets in the public sector used in this article is as follows:

A nonmonetary asset (without physical substance) that enables and gives access to tangible assets, that is activated through communication, and that is built on past events (and linked to the behavior of the organization); therefore, it gives rise to a resource that is identifiable and from which a future (long-term) benefit/value (social, monetary, and so forth) is expected to flow, potentially, for both the organization and stakeholders/citizens. (Canel & Luoma-aho, 2019, p. 77)

The key point from this definition is the idea that value may derive from communicative interactions between organizations and stakeholders, which is relevant because misinformation can develop in these kinds of interactions. Resilience is associated with the social ability to overcome challenges. This article defines resilience as "the capacity of groups of people bound together in an organization, class, racial group, community or nation to sustain and advance their well-being in the face of challenges to it" (Hall & Lamont, 2013, p. 6). Resilience involves adaptive behaviors to ensure favorable conditions for facing threats and an awareness of risk and vulnerability (Masten, 2007). Therefore, resilience means facing vulnerability due to developmental adaptations "to overcome adversity and be able to be successful even with the presence of high risk" (Barua et al., 2020, p. 3). Habersaat et al. (2020) point out that a high degree of resilience is more likely to reduce adverse effects. In other words, higher resilience to misinformation is more likely to decrease misperceptions and threats against the functioning of democratic systems—including normative goods such as self-determination, accountable representation, and public deliberation (Tenove, 2020).

Thus, resilience refers to a mental process—a cognitive capacity—through which a citizen rationally and autonomously processes the information they receive. These skills allow citizens "to distinguish facts from fiction and the information from the disinformation" (Hansen, 2017, p. 36). The European Commission's Action Plan against Disinformation (European Commission, 2018a) stresses that resilience is an essential part of the fight against misinformation. Among the actions considered in the plan, the European Commission (2018a, 2018c, 2020) emphasized media literacy as a priority strategy for improving citizens' skills and knowledge, enabling them to cope with misinformation. Furthermore, the European Commission emphasizes the importance of raising awareness among citizens because the "response to disinformation requires active participation by civil society" (European Commission, 2018a, p. 10):

Greater public awareness is essential for improving societal resilience against the threat that disinformation poses. The starting point is a better understanding of the sources of disinformation and of the intentions, tools and objectives behind disinformation, but also of our own vulnerability. (European Commission, 2018a, p. 9)

Increasing skills, knowledge, awareness of the scope of the problem of misinformation, and commitments to fight misinformation are avenues for building resilience. The literature includes research that evidences strategies such as psychological inoculation and multiple literacies that help curb misinformation by advancing citizens' resilience to misinformation. Psychological inoculation consists of warning citizens about the possibility of being exposed to untruthful content while citizens are taught, informed, and motivated to counteract (prebunking) that kind of content (Lewandowsky & van der Linden, 2021). Moreover, information literacy entails citizens' "abilities to navigate and find information online that is verified and reliable" (Jones-Jang et al., 2021, p. 382), and media literacy "emphasizes people's perceived beliefs about their ability to critically consume, question, and analyze information" (Jones-Jang et al., 2021, p. 374). These strategies seek to help citizens counteract misinformation.

The concept of citizen resilience to misinformation is based on attitudes and behaviors that allow citizens to become aware of misinformation, address the problem, identify the risks and effects of misinformation, and develop abilities (e.g., skills and knowledge) that allow them to overcome the threat. Using the concept of resilience to misinformation, we refer to citizens' attitudes and behaviors to cope with an array of misinformation content, and as mentioned, our aim is to conceptualize and operationalize resilience to misinformation as an intangible resource. Conceptualizing "resilience to misinformation" as an intangible resource may provide clues to identify whether intangible value can be derived from people's reactions to misinformation, and if so, whether it also can allow scholars to explore what other intangible resources could increase resilience. This could open avenues for developing something positive out of misinformation. For instance, if it is determined that citizens from a particular country are more resilient to misinformation, governments from other countries may find clues on how to strengthen resilience in their countries.

In previous research with data from Spain, a factor analysis showed that "resilience to misinformation" is composed of different attitudes and behaviors, and "resilience to misinformation" was conceptualized and operationalized as an intangible resource (Rodríguez-Pérez & Canel, 2022). This resource was defined as:

> An intangible resource belonging to a country that measures the capacity of its citizens to deploy discerning and cognitive skills about the veracity and falsehood of a piece of information, as also to be aware of the scope of the problem. (Rodríguez-Pérez & Canel, 2022, p. 862)

An exploration of relationships between this intangible resource and citizens' assessments of public sector organizations (more specifically, how they assess their legitimacy and trust) provided helpful insight into how governments can fight misinformation. The present research expands the exploration from Spain to other European Union countries and focuses on an analysis of the relationships between this intangible resource and other intangibles that may derive from people's assessments of media performance.

This leads us to formulate our first hypothesis:

H1: It is possible to synthesize information about resilience to misinformation from European citizens' attitudes and behaviors toward misinformation.

3. Intangible Resources Deriving From Media Performance and Misinformation

To have a full understanding of the current phenomenon of misinformation, which includes related concepts such as fake news, hoaxes, and conspiracy theories, the media ecosystem should be taken into account. While politicians have accused the media of producing fake news, some media misconduct also has occurred. Del Hoyo-Hurtado et al. (2020) state that intangible assets are required to build the social influence of mainstream media outlets. This intangible value declines when media produce fake and misleading content. For instance, García-Galera et al. (2020) discuss three performances in which media are responsible for disseminating untruthful information. First, when journalists deliberately mislead citizens by making up news content. Second, when journalists deliberately produce biased or manipulated news. In both cases, media outlets disseminate disinformation, meaning "information that is false and deliberately created to harm a person, social group, organization or country" (Wardle & Derakhshan, 2017, p. 20). The third performance consists of unwitting inaccurate news, referred to as misinformation, which is defined as "information that is false, but not created with the intention of causing harm" (Wardle & Derakhshan, 2017, p. 20). These media performances contribute to information pollution and emphasize the responsibility of media practice in the phenomenon of misinformation. Additionally, Tsfati et al. (2020) state that mainstream media amplify misinformation (they also speak of disinformation) when they cover fake news content from a newsworthiness criterion.

Building on the literature on intangible resources, this research looks at two intangibles that may derive from how people assess media performance. The first one is legitimacy. Based on Suchman's definition of organizational legitimacy—a "generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (1995, p. 574)—this research looks at media legitimacy given that media outlets are evaluated by their stakeholders. People's judgment of media performance could be taken from a deontological commitment to key principles that address the journalistic practice. As Darío-Restrepo

(2016, p. 1) indicates, "ethics is to journalism as the buzz is to the blowfly." In this sense, characteristics that favor media legitimacy include independence, impartiality, and journalistic quality of media coverage (Arlt, 2018) that accomplishes the objectivity principle, separates information from opinion (Ardèvol-Abreu & Gil de Zúñiga, 2017), monitors political institutions, serves as a public forum (Markov & Min, 2020), and is committed to engaging with the community (Zahay et al., 2021). In addition, scholars recommend that media outlets increase transparency and accountability to avoid disseminating misinformation or being accused of it (Vu & Saldaña, 2021). Kyriakidou et al. (2022) assert that biased news, political spin, and misrepresented information must be included in the analysis of misinformation. Furthermore, the literature also suggests that citizens associate media coverage they believe is biased with fake news (Ardèvol-Abreu, 2022). None of these outputs foment increased media legitimacy.

Alternatively, there is research that suggests that citizens perceive poor journalism, click-baiting, and sensationalist coverage as fake news (Nielsen & Graves, 2017). Some scholars argue that there is a tendency in the media to favor emotion and persuasion rather than informing citizens (Del Hoyo-Hurtado et al., 2020; García-Galera et al., 2020). Within this media environment, citizens have to develop attitudes and skills to critically assess the truthfulness of information and curb misinformation (Hameleers et al., 2022). In other words, citizens are developing a pragmatic skepticism and becoming more critical of news (Kyriakidou et al., 2022). This leads us to formulate Hypothesis 2:

> H2: When media legitimacy decreases, resilience to misinformation is more likely to increase.

However, legitimacy is not the only intangible asset associated with the norms and procedures of news production. Trust in the media can be perceived as another intangible resource deriving from media performance, as it not only comes from the assessment of trust in the selectivity of topics and facts, accuracy of depictions, and journalistic assessment (Kohring & Matthes, 2007), but also from what the audience's expectation that news provides useful, reliable, and amusing information (Coleman et al., 2012).

European citizens assign journalists the responsibility of fighting disinformation (European Commission, 2018b). The European Commission warns "while news media can play an important role in combating disinformation and increasing societal resilience, some news media contribute to disinformation problems, thereby weakening European citizens' overall trust in media" (European Commission, 2018c, p. 11).

Although trust is necessary, it is important to take into account that a critical attitude towards media can be positive and functional because media do not always play a watchdog role regarding politicians and public adminis-

tration. Therefore, trust is necessary but just to a certain point (Ardèvol-Abreu & Gil de Zúñiga, 2017). In the same vein, it is thought that "democracy greatly benefits from the public's critical attitude and a healthy sense of skepticism toward politics and the news media" (Hanitzsch et al., 2018, p. 19). In this sense, we argue that trust could be dysfunctional to resilience to misinformation. That leads us to formulate our third hypothesis:

> H3: When citizens' trust in the media decreases, resilience to misinformation is more likely to increase.

Furthermore, the media's approach must not only consider the mainstream media perspective. It is necessary to evaluate the technological environment and the scope of social media networks, online communication channels, and digital alternative media in which fake news stories gain prevalence. Coleman et al. (2012) state that the internet is increasingly being used to look for unofficial accounts and make vernacular explanations of reality, such as conspiracy theories. When surfing the internet, citizens usually adopt the principle of least effort (Weiss et al., 2020), which explains why they use heuristic shortcuts to get informed. Moreover, citizens tend to trust the content their contacts share on social networks, which makes it easier to share fake news (Montero-Liberona & Halpern, 2019). This leads us to our fourth hypothesis:

> H4: When citizens' trust in online environments decreases, resilience to misinformation is more likely to increase.

4. Methods

The data in this study were extracted from Eurobarometer, which contains comparable data from 27 European countries in Eurobarometer 94.3 (European Commission, 2021). Eurobarometer was selected because it met the following criteria: (a) it had a sufficient number of countries to make statistical analysis possible; (b) had comparable data; (c) included individuals' reactions to misinformation; and (d) included attitudes and behaviors related to some intangible assets that derive from people's assessments of media performance. The statistical design followed Piqueras' research (2019) regarding the sequence of the statistical techniques: factor analysis, correlation analysis, and multiple linear regression.

This research is based on aggregated public opinion data reported in multiple countries rather than individual-level data from just one country. Dependent and independent variables are measures of specific attitudes and behaviors of surveyed people aggregated by country. This study was designed this way for two reasons. First, this research examines intangible assets in the public sector, which means that the role of public organizations (more specifically, a national/central

government) is the object of study. The idea is to operationalize an intangible asset ("resilience to misinformation") in such a way that governments and the media measure it. The ultimate goal of this research is to provide governments and the media with recommendations about how to foster this resilience. Second, this study attempts to create a cross-country comparative dataset for future comparative research.

4.1. Measures

We decided to adopt a common criterion to ensure that all items comply with the same measurement scale and have a consistent meaning: the higher the value of the item, the higher its positivity. Likert scales from 0 to 1 were used. Answers *I don't know (spontaneous)* or *It depends* were included as midpoints on the Likert scale (Raaijmakers et al., 2000). The total sample was N = 27,409.

Building upon prior research in Spain (Rodríguez-Pérez & Canel, 2022), we identified four items related to attitudes and behaviors toward misinformation: (a) You often come across news or information that you believe misrepresent reality or are even false—or "exposure awareness" (M = 0.67; SD = 0.29); (b) it is easy for you to identify news or information that you believe misrepresent reality or are even false—or "media literacy" (M = 0.65; SD = 0.28); (c) the existence of news or information that misrepresent reality or is even false is a problem in our country—or "problem in country" (M = 0.70; SD = 0.29); and (d) the existence of news or information that misrepresent reality or is even false is a problem for democracy in general—or "problem for democracy" (M = 0.78; SD = 0.25). The answer choices were a five-point Likert scale, with 0 indicating *totally disagree* and 1 indicating *totally agree*. Cronbach alpha (four items) was α = 0.643.

Four items were identified related to media legitimacy (five-point Likert scale: from 0 = *no, not at all*; 1 = *yes, definitively*): (a) Media provide trustworthy information (M = 0.59; SD = 0.31); (b) media provide a diversity of views and opinions (M = 0.63; SD = 0.30); (c) media provide information free from political or commercial pressure (M = 0.48; SD = 0.33); and (d) public

service media are free from political pressure (M = 0.46; SD = 0.35). Cronbach alpha (four items) was α = 0.825.

Five items were selected related to trust (three-point Likert scale: from 0 = *tends not to trust*; 1 = *tends to trust*): (a) the written press (M = 0.57; SD = 0.48); (b) radio (M = 0.66; SD = 0.46); (c) television (M = 0.58; SD = 0.49); (d) the internet (M = .41; SD = 0.47); and (e) online social networks (M = 0.24; SD = 0.40). Cronbach alpha (five items) was α = 0.712.

As sociodemographic control variables, we included: (a) gender (0 = *woman*, 0.5 = *non-binary*, 1 = *man*); (b) age (original scale from 15 to 98 years old); (c) education level (0 = *no education*, 0.2 = *primary education*, 0.4 = *secondary education and tertiary non-university education*, 0.6 = *university-bachelor's*, 0.8 = *university-master's*; 1 = *university-doctoral*); (d) employability (0 = *unemployed*, 1 = *self-employed or employed*); (e) size community (0 = *rural area or village*, 0.5 = *small or middle sized town*, 1 = *large town*), and (f) ideological self-placement (from 1 = *left* to 10 = *right*). Missing data were excluded.

5. Findings

We conducted a principal component factor analysis with varimax rotation to determine whether a factor called "resilience to misinformation" can be composed of citizens' attitudes and behaviors toward misinformation and ascertain whether this factor can be conceptualized as an intangible asset that European governments and media can manage through public policies. The Kaiser Meyer-Olkin (KMO) measure of sampling adequacy was 0.651, and the Bartlett spherical value was significant (p < 0.001). Factor analysis yielded a unique factor with an eigenvalue greater than one, explaining 49.352% of the variance (see Table 1). The four items converged in the first rotation. This result allows us to accept H1. "Resilience to misinformation" is composed of citizens' exposure awareness, media literacy, and the recognition of false information as a problem in the country and for democracy.

This study explored the relationship between "resilience to misinformation" and intangible assets derived from media performance. We developed a factor

Table 1. Factor analysis for items related to attitudes and behaviors toward misinformation.

Items	1
Factor 1: Resilience to Misinformation	
Exposure awareness	0.736
Media literacy	0.456
Problem in country	0.823
Problem for democracy	0.740
Eigenvalue	1.974
Variance explained	49.352
Reliability (Cronbach's α)	0.643

Note: Extraction by principal component analysis.

analysis (principal component analysis with varimax rotation) with the objective of reducing the number of items (nine) and identifying latent variables associated with intangible assets related to media performance. The KMO test was 0.820, and the Bartlett spherical value was significant ($p < 0.001$). The factor analysis yielded three factors with eigenvalues greater than one, explaining 71.554% of the variance (Factor 1 = 41.857%; Factor 2 = 17.672%; Factor 3 = 12.026%). Table 2 shows how the items group themselves into factors.

As Table 2 shows, the first-factor groups items related to how survey respondents assess fulfillment by media and their standards of legitimacy. Therefore, we called this factor Media Legitimacy. The second-factor groups items specifically assessed trust, which we called Media Trust. Finally, the third-factor groups items related to trust in the online environment, which we refer to as Online Environments Trust. Based on the literature review, we understand that these factors measured three intangible resources that derive from media performance.

Afterward, we examined the relationships between these three intangible resources and "resilience to misinformation." First, we conducted a correlation analysis. Table 3 shows that Media Legitimacy and Media Trust are significantly correlated with "resilience to misinformation." Online Environments Trust is not correlated. Therefore, we rejected H4.

We carried out a multiple linear regression model to assess the predictive capacity of the intangible assets Media Legitimacy and Media Trust (independent variables) on "resilience to misinformation" (dependent variable). This model included the above-mentioned sociodemographic control variables. The results show that the model is significant ($F[8—25,664] = 330.228$; $p < 0.001$), explaining 9.3% of the variance in the dependent variable. The variance inflation factor (VIF) is close to one for all independent variables ($1.005 < VIF < 1.144$). Although the amount of variance that is explained by this regression model is not very high, we understand that results for the betas have sufficient statistical significance to deserve to be reported. Table 4 shows the multiple linear regression results predicting "resilience to misinformation.''

Results show that the intangible resources Media Legitimacy and Media Trust significantly predict "resilience to misinformation." Interestingly, betas for those two intangible resources are higher than for other independent variables (sociodemographics). The following betas are mentioned here but not discussed because they are not the goal of this article: gender (men are more resilient than women), age (the younger, the higher resilience), education (the higher educated, the higher resilience), community size (the larger the size, the higher resilience), and ideological self-placement (the more to the left, the higher resilience).

Table 2. Factor analysis for intangible items.

Items	1	2	3
Factor 1: Media Legitimacy			
Media provide information free from political or commercial pressure	0.842*	0.166	0.020
Public service media are free from political pressure	0.814*	0.127	0.018
Media provide trustworthy information	0.732*	0.392	−0.017
Media provide a diversity of views and opinions	0.718*	0.221	0.000
Factor 2: Media Trust			
Trust radio	0.193	0.862*	0.053
Trust the written press	0.209	0.828*	0.090
Trust television	0.302	0.781*	0.104
Factor 3: Online Environments Trust			
Trust online social networks	−0.001	0.007	0.884*
Trust the internet	0.011	0.168	0.853*
Eigenvalue	3.767	1.590	1.082
Variance explained	41.857	17.672	12.026
Reliability (Cronbach's α)	0.825	0.830	0.683

Notes: Extraction by principal component analysis, varimax rotation with Kaiser normalization; the rotation converged in 5 iterations; * = primary loading of an item on a factor.

Table 3. Pearson's correlation analysis between media performance intangible assets and "resilience to misinformation."

Factor	Media Legitimacy	Media Trust	Online Environments Trust
Resilience to misinformation	−0.228***	−0.162***	−0.003

Note: *** $p < 0.001$ (bilateral).

Table 4. Predictivity of media performance intangible resources on "resilience to misinformation."

	Resilience to misinformation
Independent variable	β (standardized coefficient)
Gender	0.064***
Age	−0.073***
Education level	0.058***
Community size	0.032***
Employability	0.008
Ideological self-placement	−0.016**
Media legitimacy	−0.224***
Media trust	−0.166***
N	25,673
R^2	0.093
Adjusted R^2	0.093
Durbin Watson	1.679
F statistic	330.228***

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Betas for the variables that refer to intangible resources are much higher than the sociodemographic variables. Media Legitimacy (β = −0.224; $p < 0.001$) has the greatest explanatory capacity; and the direction is negative, with lower legitimacy associated with higher resilience. Therefore, H2 is accepted. Similarly, Media Trust also has a high predictive capacity (β = −0.166; $p < 0.001$) with a negative direction, which leads us to accept H3.

6. Discussion and Conclusion

The purpose of this study was to conceptualize "resilience to misinformation" as an intangible asset in the public sector. More specifically, we sought to: (a) determine if a factor called "resilience to misinformation" could be composed of European citizens' attitudes and behaviors toward misinformation and ascertain whether this factor could be conceptualized as an intangible asset managed by European governments and media; (b) explore the relationship between "resilience to misinformation" and intangible assets derived from individuals and media performance; and (c) study the relationships between media's intangible resources (legitimacy and trust) and "resilience to misinformation" to make suggestions that help media strengthen their intangible value and help them fight against misinformation.

Findings empirically support that "resilience to misinformation" is an intangible asset composed of citizens' attitudes and behaviors toward misinformation that enables facing threats and vulnerabilities posed by misinformation. Items included in the factor are citizens' awareness, media literacy, and the recognition of false information as a problem for the country and democracy. These findings support the concept of "resilience to misinformation" discussed in the literature (Hansen, 2017) and the European Commission (2018a, 2018c, 2020), as

well as findings from previous research using data from Spain (Rodríguez-Pérez & Canel, 2022).

These components of resilience provide significant input for developing public policies to combat misinformation. Resilience includes aspects associated with social awareness that enable citizens to recognize both social and individual vulnerabilities and threats. Public policies that contribute to alerting citizens about the problem of misinformation will help increase resilience. Moreover, the factor "resilience to misinformation" includes both awareness and media literacy, reflecting developmental adaptations to overcome risks and succeed at identifying misinformation. Citizens' empowerment is necessary to complement current regulatory policy responses to face misinformation threats.

This finding allows us to conceptualize "resilience to misinformation" as an intangible asset in the European context and supports the idea that intangible assets are expected to give rise to positive value (e.g., economic and social value; Canel & Luoma-aho, 2019): In this case, higher resilience to misinformation can lead to social benefits.

We conclude that the definition that we proposed for "resilience to misinformation" based on data from Spain also is supported by data from other European countries analyzed in this research:

> An intangible resource belonging to a country that measures the capacity of its citizens to deploy discerning and cognitive skills about the veracity and falsehood of a piece of information, as also to be aware of the scope of the problem. (Rodríguez-Pérez & Canel, 2022, p. 862)

"Resilience to misinformation" is an intangible resource that is managed by countries because the national governments can influence it by promoting public policies

that boost social awareness or enhance literacies, such as media and information literacy skills. In addition, this resilience can also be managed by the media themselves.

Moreover, the previous conceptualization of resilience to misinformation allows us to explore how this resilience to can increase or decrease intangible resources that derive from media performance. Results show a significant opposite relationship between media's intangible assets and "resilience to misinformation." More specifically, lower Media Legitimacy and lower Media Trust is associated with greater "resilience to misinformation." We explain these relationships in light of alarmed citizens who perceive media practice from a pragmatic skeptical behavior (Kyriakidou et al., 2022). Citizens assign the media the responsibility of fighting against misinformation (European Commission, 2018b). Perceptions of media bias, as well as deliberately misleading content (disinformation) and unwitting inaccurate content (misinformation) in news coverage may support citizens in developing greater resilience. This relationship suggests that a lack of trust in the media can be beneficial because awareness of the dissemination of false information is higher. Consequently, a certain lack of media legitimacy and trust seems to be good for the increase of this intangible resource. This result points out a dysfunctional role of media trust regarding "resilience to misinformation," or in opposite terms, a functional role of media distrust and of low media legitimacy.

These results lead us to the following analysis. A critical assessment of media practice facilitates "resilience to misinformation." For this reason, achieving greater resilience involves citizens assessing critical information from cognitive skills to identify truthful news sources. Acerbi et al. (2022) assert that resilience should allow citizens to fight misinformation and fight for good information, a fundamental factor given today's fragmentation of channels and sources of information. Paraphrasing Spanish journalist Gabilondo (2011), the first thing that is scarce when there is a flood is drinking water. In this case, we could say that the first thing that is scarce when there is misinformation is good information. For this reason, the cognitive ability of citizens to critically assess information and consult reliable sources of information is essential for overcoming the vulnerability caused by misinformation. The cultivation of pragmatic or functional skepticism helps curb misinformation by boosting citizens' critical gaze which benefits society against misinformation. Blind trust in the media could be dysfunctional for the misinformation challenge.

As a result, media should deploy strategies to strengthen internal procedures and facilitate knowledge and skills that allow citizens to differentiate between truthful and untruthful news sources to increase trust in media outlets whose practices are deontologically correct, rigorous, and non-partisan. More specifically, media have beneficial effects on democracy (Kalogeropoulos et al., 2019) and facilitate citizens' understanding of public affairs and public policies.

Media, for their part, should foster resilience to misinformation. Research shows the extent to which the lack of Media Trust is driven by inaccurate media coverage, lack of transparency, and partisanship, which undermine legitimacy and trust (García-Galera et al., 2020; Kyriakidou et al., 2022; Vu & Saldaña, 2021). An important practical implication of this research's findings is that governments and media both have a role in fighting misinformation by managing their own intangible resources. This research may complement what the literature argues regarding the responsibility of media, and it does so by placing this responsibility within the framework of intangible assets. To gain legitimacy and trust, mainstream media (print, radio, and television) can implement a range of strategies to strengthen their watchdog role. Focused on the news coverage of fake news agendas, Tsfati et al. (2020) suggest that the media have a role in popularizing and disseminating misinformation. A new media framing based on facticity and data may help media to avoid perpetuating misperceptions and linking their brand with misinformation. However, if the intangible assets framework is deployed, working with the latter's tools and measures may be good leverage. For instance, barometers of media trust and legitimacy can be developed to allow governments to measure levels of resilience to misinformation.

To strengthen the management of intangible assets, educommunication strategies address media literacy and promote and raise citizens' awareness of their misinformation's vulnerabilities. This strategy should combine the instrumental vision of educommunication to train citizens on aspects of a technical and technological nature and the dialogic perspective, which considers citizens to be prosumers of information. Therefore, the dialogic perspective fosters cognitive and expressive skills that seek to deploy communicative training (reception, comprehension, and evaluation) in an environment with a plethora of (mis)information. Evidence of the effectiveness of this strategy can be found in research by Hameleers (2022), who states that the alliance between media literacy and fact-checking improves the effectiveness of reducing misperceptions. This recommendation aims for citizens to develop resilience with media, not in spite of media, which will make it easier to regain media legitimacy and media trust.

Fact-checking is characterized as a reform movement to uphold journalistic values of impartiality, independence, and rigor (Amazeen, 2020; Graves, 2018). Furthermore, fact-checking is one of the actions supported by the European Commission as an effective practice to combat disinformation. Fact-checking aims to reconnect citizens with journalism through the curation and verification of information. However, it is noteworthy to follow the recommendation made by Carson et al. (2022) so that fact-checking platforms clearly show the political claim checked instead of the media coverage that contains it. Doing the latter is more likely to negatively impact trust in news media.

The analysis does not provide empirical evidence to support the relationship between trust in online environments and "resilience to misinformation." This result is surprising given that misinformation has been mainly associated with social network sites and digital platforms. In the current hybrid information ecosystem, it can be unclear what is meant by a social network site. Is it reasonable to question whether hybridization is an agent that produces information, or is it only a channel? Is it responsible for disseminating information? Are social media sites exclusively pathways that contain information posted by others (e.g., media outlets, users, companies)? Although European citizens usually consume news on social media sites, trust in online environments is not related to adaptative behaviors to cope with misinformation. It is possible that citizens do believe that social network sites and digital platforms are mere channels that are not responsible for the information that they disseminate. These are issues for future research.

Finally, the multiple linear regression results indicate that the predictive capacity of intangible assets regarding media is much higher than sociodemographic variables. Findings indicate that age is the sociodemographic variable with the highest predictive power, with younger citizens tending to be more resilient than the elderly. This result is consistent with previous studies (Baptista et al., 2021; Brashier & Schacter, 2020; Golob et al., 2021). Furthermore, higher education seems to be a predictive variable that favors resilience, an outcome previously demonstrated by researchers (Baptista et al., 2021; Humprecht et al., 2021; Seo et al., 2021; Serrano-Puche et al., 2021; Staender et al., 2021). Regarding gender, our results show that men have greater "resilience to misinformation" than women, which contradicts previous research (Almenar et al., 2021; Golob et al., 2021; Humprecht et al., 2021; Neyazi & Muhtadi, 2021). Ideological self-placement also is relevant, as citizens who reported identifying with the political right tended to be less resilient to misinformation. All these findings come from data from 27 European countries that may help policymakers and media owners design public policies to contribute to "resilience to misinformation."

This research has limitations. First, the statistical treatment and analysis come from secondary data from a trustworthy European source, such as the Eurobarometer. Though the amount of the data included in this dataset is valid and representative, they include self-assessments of citizens, and as typical of surveys, these data are prone to subjective biases. Therefore, a Dunning-Kruger effect can be hidden. Second, this analysis focuses on a specific context, but European countries change over time, and this research only provides a snapshot. Third, the Eurobarometer items address the media in overall terms, and this prevents us from getting into specific media (such as tabloids, alternative publications, and partisan media outlets versus quality mainstream media, as well as local and regional media versus national media). This limitation suggests that further research pursuing the analysis in a more specific manner is needed.

Conflict of Interests

The authors declare no conflict of interests.

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