

HR ANALYTICS DATA COLLECTION PROCESS: EMPLOYEES' ATTRIBUTIONS AND PERCEIVED LEGITIMACY

Elia Rigamonti¹, Benedetta Colaiacovo², Luca Gastaldi¹, and Mariano Corso¹

¹ Politecnico di Milano, Department of Management Economics and Industrial Engineering,
Via Lambruschini 4b, Milan, Italy

²Università degli studi di Milano, Via Conservatorio, 7, 20122 Milan, Italy

elia.rigamonti@polimi.it

ABSTRACT

This paper aims at analysing employee's perception of data collection process for Human Resource Analytics (HRA). First, the research studies the effect that information sharing practices have on employee's attributions (benevolent vs malevolent) through the perceived legitimacy of data collection process. Second, it investigates whether employee's emotional reactions (i.e. fear of datafication) depend on their perceived legitimacy and attributions. The research is based on a sample of 259 employees operating for an Italian consulting firm that developed and implemented HRA processes in 2021 and 2022. The hypothesized model was tested using Structural Equation Modelling technique on Stata 14. This paper demonstrates the mediating role of perceived legitimacy in the relationship between information sharing practices and employees' benevolent and malevolent attributions about the data collection process for HRA. Results also reveal that perceived legitimacy predicts employee's fear of datafication, with benevolent attributions that partially mediate this relationship. Thus, these findings indicate to firms that employees perceive, try to make sense, and emotionally react to HRA processes. Moreover, we reveal the crucial role of information sharing practices and perceived legitimacy in determining employees' attributions and emotional reactions to analytics processes.

Keywords: HR Analytics, HR Attributions, Perceived legitimacy, Workplace surveillance, Information sharing practices.

1. INTRODUCTION

The increased availability of digital technologies enhanced data collection in several organizational domains, increasing academic and managerial interests in Human Resource Analytics (HRA) (Margherita, 2021). Scholars defined HRA as an organizational capability (Minbaeva, 2017; Samson and Bhanugopan, 2022) that enable the use of statistical techniques to support HR management decisions (Larsson and Edwards, 2022). Despite its promising outcomes, recent research on HRA (e.g. Tursunbayeva et al., 2021) argued that the implementation of analytics processes arise practical and ethical issues related to organizational surveillance. More specifically, academic literature (e.g. Sewell and Barker, 2006; Ball, 2010; Ramasundaram et al., 2022) explains that employee's data collection processes can be interpreted according to two competing formations, depending on the purpose attributed to these practices. The coercive formation conceives surveillance practices as a malign form of organisational domination, focused on controlling individual behaviour in favour of organizational goals. The care formation considers these processes as a benign way of organizing managerial routines, improving their efficiency and effectiveness (Sewell and Barker, 2006).

Research on HRA provided theoretical and practical guidance for the development of transparent and fair analytics practices (e.g., Giermindl et al., 2021). Nevertheless, data collection processes for HRA are often one-sided, with employees that are unaware of its execution and objectives (Gal et al., 2020). Additionally, employees are often forced to provide their personal data to their organizations, raising ethical, privacy, and legitimacy concerns (Ball, 2010; Gal et al., 2020). Despite the importance of the individual dimension (Sewell and Barker, 2006; Ball, 2010; Khan and Tang, 2016), however, the issue of how employees perceive and react to analytics and data collection processes has received very limited attention by scientific literature (Khan and Tang, 2016; Newman et al., 2020). On the other hand, an important line of research in the HR management field focused on employees' perceptions of HR practices, demonstrating that employees form individual attributions regarding management's motivations for implementing specific processes (Nishii et al., 2008).

Considering these premises, this research has two objectives. First, we want to analyse how employees form attributions on the data collection processes related to HRA, considering both benevolent and malevolent attributions. In this regard, we considered the role of information and personal beliefs (Kelley and Michela, 1980). Second, this research aims at investigating employees' emotional reaction to HRA data collection processes, analysing the effect of personal beliefs and attributions on their fear of being datafied.

2. THEORETICAL BACKGROUND

Drawing inspiration from previous research on attributions (e.g. Sanders et al., 2021), we developed our theoretical model integrating signalling (e.g. Ehrnroorth and Bjorkman, 2012), information processing (Fiske and Taylor, 1991), and HR attribution theories (e.g. Nishii et al., 2008).

Signaling and information processing theories were adopted to highlight the role of organizational practices as distinctive signals that the firm send to employees, acting as antecedents for the emergence of different employee's attributions (Guest et al., 2020). These messages can be perceived as unclear and misinterpreted by employees (Sanders et al., 2021), affecting their subsequent attributions and behaviours (Guest et al., 2020).

Attribution theories explain how employees attribute meaning to the processes implemented by their organization (e.g. Hewett et al., 2019). Researchers classified employee's attributions along several dimensions (Nishi et al., 2008), depending on whether the organizational practices are attributed either to internal (e.g. managerial choices) or external causes (e.g. external requirements). Focusing on internal attributions, we used the classification adopted by Montag-Smit and Smit (2020), who distinguished employee's attributions in benevolent and malevolent. Individuals form benevolent attributions when they believe that the practice is implemented with benign intentions. On the other hand, malevolent attributions happen when the practice is considered to be implemented for instrumental goals (e.g. control or exploitation). Previous studies explained that individuals form attributions depending on the information available to them, their personal beliefs, and their motivations (Kelley and Michela, 1980). Despite a mounting interest, however, there is still a dearth of research on the formation of HR attributions (Hewett et al., 2021). Additionally, attributions and beliefs have been also included in the traditional cognitive-emotional process (Lazarus, 1991), explaining

individual's emotional experience as a consequence of a given situation or events. In this regard, recent research has demonstrated the relevant role of attributions in explaining the relationship between individuals' perception, beliefs, and emotions (e.g. Tzafirir and Hareli, 2009).

Rooted on these premises, in the following sections we will define the model depicted in Figure 1.

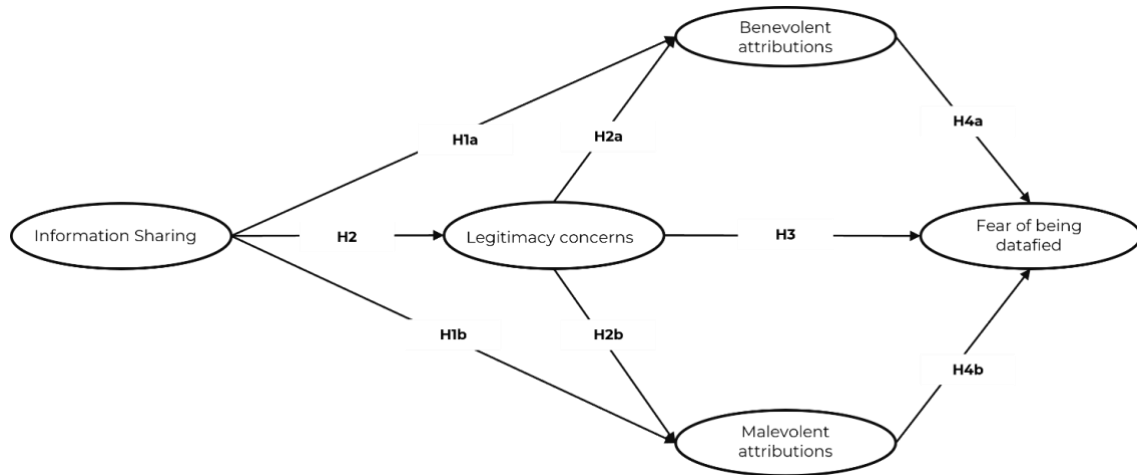


Figure 1. Hypothesised model.

2.1 INFORMATION SHARING PRACTICES AS AN ANTECEDENT OF BENEVOLENT AND MALEVOLENT ATTRIBUTIONS

Information sharing refers to the extent to which a company distributes information to its employees regarding its policies, its relation to the organizational environment, and work-related goals (Pfeffer, 2005). Previous research agrees that information sharing practices enable employees to further understand organizational decisions, reducing their feelings of uncertainty and engaging them in appropriate behaviour (Ogbonnaya and Valizate, 2014). In the context of HRA, information sharing practices become particularly relevant for employee's understanding of managerial decisions. Firms adopting HRA often fail in setting up communication strategies to inform their employees about the implementation of HRA processes (Gal et al., 2020; Tursunbayeva et al., 2021). In these organisational settings, employees have limited direct information about the stimulus (i.e. data collection process), and thus, use available information from the firm as a signal of the general organisational tendency to be transparent and fair with respect to its processes (Ehrnroorth and Bjorkman, 2012).

Considering the HRA process of collecting employees' data, thus, we expect that – when individuals perceive that their organization share with them information about its practices, goals, and plans – this provides a signal to the employee that the organization has positive and genuine intentions, leading to benevolent attributions. On the contrary, when employees perceive little (or none) information to be shared by their organization, the signal is that the organization have instrumental goals, resulting in malevolent attributions. Thus, we hypothesize as follow:

Hypothesis 1a. Information sharing practices are positively related to benevolent attributions on HRA data collection process.

Hypothesis 1b: Information sharing practices are negatively related to malevolent attributions on HRA data collection process.

2.2 PERCEIVED LEGITIMACY AND ATTRIBUTIONS

As more firms realize the potential in collecting and processing employee's data, privacy concerns are growing among workers (Bradley et al., 2006; Ball, 2010). Information privacy embodies a perceived legitimacy component, which reflects one's belief in the extent that their organization's personal information gathering and handling practices have violated one's expectations of legitimate conduct (Alges et al., 2006; Bradley et al., 2006). Kelly and Michela' (1980) explained how, in developing attributions, people engage in an information-seeking process, looking for information to make sense of their environment. Moreover, they revealed that personal beliefs not only predict the attributions but are also affected by the use of relevant information.

Thus, we hypothesize that employees will use the organisational information they receive to form beliefs about the data collection process and that these beliefs mediate the relationship between information sharing practices and attributions. More specifically, we assume that the information received by employees will contribute to the shaping of their legitimacy belief, which in turn determines employees' attributions. Accordingly, we hypothesize as follows:

Hypothesis 2a: Legitimacy concerns mediate the positive relationship between information sharing practices and benevolent attributions on HRA data collection process.

Hypothesis 2b: Legitimacy concerns mediate the negative relationship between information sharing and malevolent attributions on HRA data collection process.

2.3 DATA COLLECTION PERCEIVED LEGITIMACY, EMPLOYEE'S ATTRIBUTIONS, AND FEAR OF DATAFICATION

According to cognitive emotion theory (Lazarus, 1991), beliefs are one of the major antecedents and determinants of emotions (Frijda et al., 2000). More specifically, emotions are the result of how individuals believe the world should be, how events are believed to come about, and which implications events are believed to have. Following this traditional cognition-emotion schema (Lazarus, 1991), we theorize that employees' beliefs of whether the data collection process is legitimate or not are further associated with employees' emotional reactions.

More specifically, we hypothesize that when employees believe that the organization is collecting personal data for illegitimate purposes, they will respond with negative emotions - i.e. fear of being datafied. This specific emotional state occurs when employees feel afraid that their behaviours can be objectified by their organization and reduced to quantitative data (Newman et al., 2020). Therefore, a further hypothesis is the following:

Hypothesis 3: Legitimacy concerns about the HRA data collection process are positively associated with employee's fear of datafication.

Additionally, cognitive processes often start with the perception of a stimulus or event, continue with the processing of specific information according to personal beliefs and

with the causal attribution of that stimulus or event, and end with the individual emotional reaction (Frijda, 1986).

Thus, we further hypothesize that employees' attributions on HRA data collection process mediate the relationship between legitimacy concerns and the fear of being datafied. In this regard, we theorize that individuals' legitimacy beliefs influence individuals' attributive process on the motives behind data collection, which in turn determines their fear of being datafied. Thus, our last set of hypotheses are the following:

Hypothesis 4a: Benevolent attributions on HR Analytics data collection process mediate the positive relationship between legitimacy concerns and employee's fear of datafication.

Hypothesis 4b: Malevolent attributions on HR Analytics data collection process mediate the positive relationship between legitimacy concerns and employee's fear of datafication.

3. METHOD

3.1 SAMPLE AND PROCEDURE

Data have been collected administering a questionnaire in August 2022 in an Italian company with around 500 employees, referred to as *Artemis* from now on. The company operates in different industries, providing a wide range of digital services. *Artemis* has been selected because, over 2021 and 2022, it collected employee's data, opinions, and information through different channels to implement HRA practices on employee's wellbeing and set up corrective initiatives. The questionnaire has been administered to employees through an online platform ensuring them on the anonymity of the gathered data. The questionnaire has been preliminary tested with 5 employees ensuring questions comprehensibility. The questionnaire collected 259 complete answers out of 484 employees, obtaining a response rate (53,5%) that ensures representativeness of the entire population. Annex I represent the descriptive statistics of our final sample.

3.2 MEASURES

Information sharing practices exist when individuals perceive that their organization share with them information about its practices, goals and plans. The construct has been measured using the 5-item scale created by Riordan et al., (2005). The construct had a good Cronbach α value (0.87). A sample item is "*Company practices and procedures are clearly communicated to employees*".

Legitimacy concerns of information practices reflect the individual's belief that the organizational processes of collecting and handling employee's personal data, information, and/or opinions violated her expectations of legitimate conduct (Alge et al., 2006). The construct has been measured using a 5-item scale created by Eddy et al. (1999), obtaining a good Cronbach α (0.85). A sample item is "*The way that my organization monitors its employees makes me feel uneasy*".

Benevolent and malevolent attributions represent positive and negative individual's explanations of the reasons behind the implementation of specific organizational practices and procedures (Nishi et al., 2008). Since there is not a specific and tested scale for employee's attributions about HRA data collection process, the construct has been developed using the procedure proposed by Montag-Smit and Smit (2020). The method is based on the administration of an open-ended questionnaire to a group of over 50

employees. The group is different from the sample used to test the hypothesized model to not influence respondents when answering the construct items. Thus, the questionnaire has been sent to 150 employees from different organizations operating in Italy, collecting 77 responses. Following Montag-Smit and Smit (2020) recommendations, the questionnaire has been divided in two main sections. In the first one, we proposed a first questions to respondents: Q1. “*What comes to mind when you hear the organizational process of collecting employee’s data, information, and opinions?*”. Then, in the second one, we asked them: Q2. “*Why do organizations collect employee’s data, information, and opinions?*”. Results for Q1 suggested that people spontaneously make attributions about the reasons why organizations collect employee’s personal data – i.e., the 35% of respondents made attributions. For Q2, responses have been coded by two of the authors independently. In this phase, we identified eight main themes in the responses, mainly corresponding to attributions categories already identified by previous research (e.g. Nishi *et al.*, 2008; Hewett *et al.*, 2019). More specifically, 5 items have been used to evaluate benevolent attributions, 4 derived from previous validated scales (Nishi *et al.*, 2008; Hewett *et al.*, 2019) and 1 adapted to evaluate attributions related to the organization’s control over employees (i.e. “*My organization collects employee’s personal data, information, and opinions to control employees*”). Then, 4 items have been used for malevolent attributions, all derived from previous validated scales (Nishi *et al.*, 2008; Hewett *et al.*, 2019). A sample item for benevolent attributions is “*My organization collect employee’s personal data, information, and opinions to promote the well-being of employees*”, while a sample item for malevolent attributions is “*My organization collect employee’s personal data, information, and opinions to reduce operational costs*”. Both scales, validated through exploratory and confirmatory factor analysis, obtained great Cronbach α values, equal to 0.91 and 0.88.

Fear of datafication is an emotional state of employees that occurs when they are exposed to the datafication process, which has been defined as the process of transforming life-processes into data (Couldry and Yu, 2018). In academic literature there are no validated scales for evaluating emotional states related to the datafication phenomena. Thus, we created an ad-hoc construct using again the procedures proposed by Montag-Smit and Smit (2020). More specifically, we asked to employees two further questions: Q1. “*What comes to mind when you hear the word datafication?*”, and Q2. “*What are your main concerns if you think at the datafication of employees?*”. For Q1, 42% of responses were negative thoughts and/or feelings, confirming possible individual concerns related to personnel datafication. For Q2, two of the authors independently read and analysed all responses, coding them in different categories through an iterative process. Responses have been organized in four categories. Eventually, a 4-item scale has been developed to evaluate employee’s fear of being datafied. The final scale is presented in Annex II. The final construct presented a great Cronbach α value (0.92), confirming a good scale reliability and solidity.

For all variables a 7-Likert scale has been used. Additionally, we included in the model also six *control variables* - i.e., age, gender, educational level, seniority, role, and job tenure.

3.3 STATISTICAL ANALYSIS

Our analysis has 5 phases. First, we performed factor analysis to evaluate our measurement models. More specifically, we conducted an Exploratory Factor Analysis (EFA) to identify the underlying constructs. Second, we performed a Confirmatory Factor

Analysis (CFA) to test the distinctiveness of the construct. Third, descriptive statistics have been performed to provide a general overview of the variables included in the model. Fourth, we used Structural Equation Modelling (SEM) technique to test the hypotheses and the relationships between latent variable (Muthén and Muthén, 1998-2015). More specifically, we decided to adopt the procedure proposed by Zhao et al., (2010) to analyse our mediating effects. Eventually, we used different indexes to test model's fit.

4. RESULTS

4.1 EXPLORATORY AND CONFIRMATORY FACTOR ANALYSIS

EFA and CFA have been performed to validate and confirm the appropriateness of the scales used in this research. First, we performed an EFA to verify that the number of constructs assumed at the theoretical level is also supported by available data. All factor loadings values are above the minimum (0.7), while uniqueness values are all below the suggested value of 0.6 (Raykov and Marcoulides, 2000). Second, the CFA confirm that the five-factor is the best model for the measurement part. The fit indexes are presented in Annex III.

4.2 COMMON METHOD VARIANCE

Self-reported measures may lead to common-method bias. Thus, the measurement items for all variables were subjected to an EFA using the Harman Single-Factor test method. The maximum unrotated factor variance interpretation rate was 35% (less than 50%), indicating that the common method bias of the sample data was not a problem in our study (Podsakoff et al., 2003).

4.3 DESCRIPTIVE STATISTICS

Means, Standard Deviations (SDs) and the correlations between constructs are presented in Annex IV.

4.4 PATH ANALYSIS

The structural model of the relationship between constructs is represented in Figure 2. First, we studied the direct effects of the information sharing practices on attributions through without considering the mediating role of legitimacy concerns. The results demonstrated that information sharing practices have a positive and significant effect on benevolent attributions ($\beta = 0.201$, $p < 0.01$), and a positive but non-significant effect on malevolent attributions ($\beta = 0.071$, $p > 0.05$). Thus, results confirm hypothesis 1a but not hypothesis 1b.

Then, our investigation revealed that information sharing practices significantly predict legitimacy concerns ($\beta = -0.366$, $p < 0.001$), which in turns significantly influence benevolent ($\beta = -0.471$, $p < 0.001$) and malevolent attributions ($\beta = 0.343$, $p < 0.001$). This indicates how employee's legitimacy concerns mediate the relationship between information sharing practices and attributions (Zhao et al., 2010). For malevolent attributions, results demonstrate that there is a significant indirect effect between information sharing practices, employee's legitimacy concerns, and malevolent attributions. These findings reveal an indirect-only mediation effect (Zhao et al., 2010) of legitimacy concerns on the relationship between information practices and malevolent attributions. The application of the Sobel test (see Annex V) confirmed both the partial

($z = 4.172, p < 0.001$) and the indirect-only ($z = -3.60, p < 0.001$) mediation effects described above. Thus, hypothesis 2a and 2b are confirmed.

Third, fear of datafication is affected by legitimacy concerns ($\beta = 0.419, p < 0.001$) and benevolent attributions ($\beta = -0.186, p < 0.01$). On the other hand, malevolent attributions have a non-significant effect ($\beta = 0.014, p > 0.05$) over employee's fear of datafication. The direct effect of perceived legitimacy concerns on employee's fear of datafication has been studied without considering the mediating role of benevolent and malevolent attributions. Thus, our results demonstrated that employee's legitimacy concerns are positively and significantly related to the fear of datafication ($\beta = 0.431, p < 0.001$), supporting hypothesis 3.

Fourth, results shows that benevolent attributions partially mediate the direct relationship between employee's legitimacy concerns and the fear of datafication. This confirms hypothesis 4a. On the other hand, as explained before, malevolent attributions have a non-significant and positive effect over employee's fear of datafication ($\beta = 0.014, p > 0.05$). The application of the Sobel test (Annex V) confirmed the partial mediation effect of benevolent attributions ($z = 2.363, p < 0.05$) and demonstrated that malevolent attributions do not mediate the relationship between perceived legitimacy of information practices and the fear of datafication ($z = 0.221, p > 0.05$). Thus, hypothesis 4b is not supported.

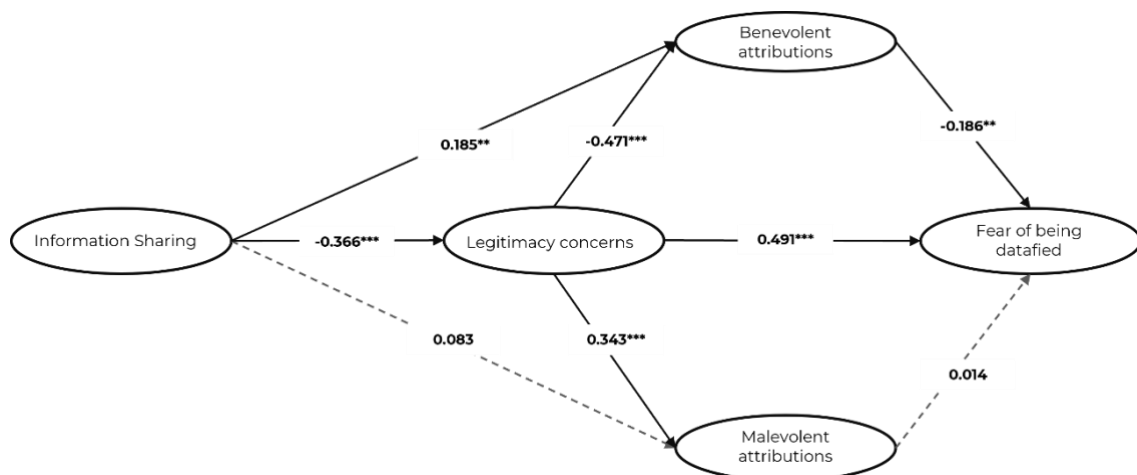


Figure 2. SEM results of the hypothesized model – i.e., $n=259$.
 Notes: The figure shows the standardized coefficients and the significant levels – i.e., $*p < 0.05$; $**p < 0.01$;

The proposed model obtained good fit indices ($\chi^2(342) = 637.464, CFI = 0.932, TLI=0.922, SRMR = 0.078, RMSEA = 0.058$), indicating a good fit to the data.

5. DISCUSSION

This paper investigates investigate employee's cognitive process and emotional reaction to the data collection processes, enriching existing research on employee's perception of HRA (e.g. Khan and Tang, 2016; Newman *et al.*, 2020). Our findings produce three main theoretical contributions. First, our research confirms that employees subjected to HRA data collection processes form malevolent and benevolent attributions, assigning both coercive and care meanings to the same analytics process. More specifically, our research indicates that, in the absence of direct information about data collection processes,

attributions and emotions still arise in employees from a conscious and unconscious processing of available information and personal beliefs.

Second, we demonstrated that employees' benevolent and malevolent attributions depend on the presence of information sharing practices and the perceived legitimacy of data collection processes. In this regard, previous studies explained that employees receive different signals from the firm, acting as an "active recipients who will offer their own interpretation of messages" (Guest et al., 2020) embedded in organizational practices and processes. These messages and information can be direct and explicit, but also complex and implicit, as in the case of HRA processes. Our results demonstrate that information sharing practices influence employee's benevolent and malevolent attributions for the data collection process, aligning with previous research on attributions (e.g. Van De Voorde and Beijer, 2015; Sanders *et al.*, 2021). This suggests that employees who do not have enough information and understanding regarding the organization and its processes fail to decipher the purpose of collecting personal data for HRA practices. In turn, this generates concerns over the perceived legitimacy of the data collection process, which reduces benevolent attributions and increase malevolent ones. Thus, our research identified information sharing practices as an important lever to explain personnel organizational general objectives and the legitimacy of HRA processes, aligning individual and organizational interests and preventing employees from perceiving data collection processes as a coercive practice (Sewell and Barker, 2006).

Eventually, our research demonstrated that individual beliefs of legitimacy and attributions with respect to HRA processes influence their emotional reactions. More specifically, we indicate that the individual belief that data are collected for illegitimate purposes has a huge influence of employees' fear of being objectified and reduced to quantitative information. Moreover, our findings show that benevolent attributions partially mediate the relationship between employee's legitimacy concerns and the individual fear of being datafied, suggesting a buffer effect of the former on the latter. In the context of HRA, this indicates that employees perceiving legitimacy in the organizational request for data attribute positive motivations to the data collection process, and thus, are less afraid that their personal data may be used to "convert individuals to just numbers". These results can be explained by the fact that employees-oriented and care-oriented practices must necessarily consider qualitative and complex elements, including employee's satisfaction, wellbeing, and other human dimensions, and thus, this reduces the possibilities of being reduced to numbers.

On the other hand, the role of malevolent attributions in our findings is less clear. Even though the "reductionism" phenomenon has often been associated with unfair and simplistic use of data by the organization (Newman et al., 2020), our results indicate a non-significant relationship between malevolent attributions and the fear of datafication. This could be explained by previous studies on emotions (e.g. Izard, 1993) arguing that individual emotional reaction to an event could also depends on non-cognitive processes. These results leave room for research to further analyse the effect of negative attributions (and coercive purposes) on personnel emotional reaction. Although perceptions, beliefs, and attributions have been recognised as logical antecedents of emotions, indeed, the existence of different degrees of cognitive involvement generates different emotional experiences (Roseman, 1984; Weiner, 1985). The fear of being datafied, thus, could also depend on other individual (e.g. attitude towards data and analytics, political orientation,

etc.) or contextual variables (e.g. trust in the organization, trust in the supervisor, etc.), which could be analysed in future studies.

5.1 PRACTICAL IMPLICATIONS

This research provides significant contributions to managers interested in HRA.

First, we remember to practitioners to consider employees' cognition during HRA implementation and development. Our results prove that HRA data collection processes could be perceived both as coercive and caring practices, depending on the meaning attributed to these processes by employees. Second, we demonstrate that information sharing practices is an effective lever for introducing HRA processes in organizational settings. This is important since firms that struggle in defining an effective communication plan to inform employees about HRA (such as *Artemis*) often decide not to clearly explain the motives and purposes behind data collection and analytics processes. In this regard, we suggest that hiding or not communicating analytics processes is not an effective choice for successful HRA implementation. On the contrary, we recommend setting up effective information sharing practices and communication campaigns to send consistent signals to employees regarding the implementation of HRA. Eventually, we found out that the data collection process can arouse an emotional reaction in employees. These emotions, if negative, could damage individual work experience and, in the long term, employees' and organizational outcomes. Thus, practitioners interested in HRA must pay attention to both the operative and the emotional dimension of their communication campaigns, ensuring employees about the functioning of analytics processes, their purposes, their ethical implications, and their consequences for individuals.

6. LIMITATIONS AND FUTURE RESEARCH

This paper is not without limitations. First, this paper adopts a cross-sectional research design therefore causality among the variables included in the model cannot be explored. We thus call for more studies employing a longitudinal design or adopting repeated measures to empirically test causality. Additionally, qualitative research might provide insights on the dynamics occurring during HRA processes implementation. Eventually, this paper opens the door to future research on relevant themes for both academics and practitioners. First, future research should further investigate the individual perception of other HRA processes, analytics, and surveillance practices. Second, it becomes important to study in depth the communication of HRA, explaining how organizations and their managers can communicate analytics processes to employees. Third, future studies could analyse the effects of the fear of datafication on different employees and organizational outcomes (e.g. turnover intention). Eventually, future research could study how individual perceptions, attributions, and behaviours affect HRA emergence, development, and implementation.

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ANNEX

Annex I. Sample characteristics

Variable	Sample characteristics
Number	n=259
Gender	44.7% men; 63.3% women
Age	Mean: 37.8; 25% of the respondents are less than 30; 14% are over 50
Educational level	1- primary school diploma; 15% -high school diploma; 64% - bachelor's degree; 20% - master or a PhD
Role	49% of respondents coordinate people; a "manager" coordinate, in average, 9.5 employees
Job tenure	Mean: 5.03; 30% of respondents have been in the same role for less than 2 years; 28% over 3 years
Seniority	Mean: 4.84; 61% of respondents have been in Artemis for less than 5 years; 11% more than 10 years

Annex II. Individual fear of datafication items

- FD1. I am afraid that my behaviour could be reduced to a number
- FD2. I am afraid that my organization doesn't consider personal characteristics and complexity
- FD3. I am afraid that my organizations neglects my human side
- FD4. I am afraid that my organizations puts me in predefined categories

Annex III. Results of the confirmatory factor analysis

Model	CFI	TLI	RMSEA	SRMR	χ^2	Df	Difference
A. 1 factor	0.414	0.355	0.206	0.158	2850.543	230	360.501
B. 2 factors	0.494	0.441	0.192	0.176	2490.042	229	697.356
C. 3 factors	0.650	0.610	0.160	0.149	1792.686	227	587.987
D. 4 factors	0.781	0.752	0.128	0.104	1204.699	224	773.082
E. 5 factors	0.953	0.946	0.060	0.056	431.617	220	-

Note: CFI = comparative fit index; TLI = Tucker-Lewis Index; RMSEA = root mean square error of approximation; SRMR= standardized root mean squared residual; difference = difference in chi-square between the consecutive models.

Annex IV. Descriptive statistics

Construct	Mean	SD	1	2	3	4	5
1. Information sharing practices	5.054	1.098	-				
2. Legitimacy concerns	2.223	0.960	-0.331*	-			
3. Benevolent attributions	5.937	0.780	0.325*	-0.461*	-		
4. Malevolent attributions	2.942	1.274	-0.058*	0.379*	-0.293*	-	
5. Fear of datafication	3.159	1.388	-0.525*	0.484*	-0.359*	0.273*	-
6. Gender	1.567	0.515	-0.094	-0.029	-0.035	0.009	0.053
7. Age	37.84	10.61	-0.052	0.022	-0.021	-0.025	0.019
8. Educational level	3.058	0.608	-0.156*	0.006	-0.012	-0.039	0.036
9. Role	1.503	1.503	-0.101	-0.104	0.016	-0.289*	-0.065
10. Job tenure	5.028	5.781	0.004	0.063	-0.019	0.099	0.146*
11. Seniority	4.839	5.605	-0.052	-0.043	-0.054	-0.039	0.096

* = Significant at $p < 0.05$.

Annex V. Sobel Test: Significance testing of the indirect effect.

Variables	Indirect effect	Std. Err.	z-value	p-value	Conf.Int.
Information sharing \Rightarrow Legitimacy concerns \Rightarrow Benevolent attributions	0.148	0.036	4.172	0.000	0.079 – 0.219
Information sharing \Rightarrow Legitimacy concerns \Rightarrow Malevolent attributions	-0.188	0.052	-3.600	0.000	-0.290 - -0.086
Perceived illegitimacy \Rightarrow Legitimacy concerns \Rightarrow Fear of being datafied	0.103	0.043	2.362	0.018	0.017 – 0.188
Perceived illegitimacy \Rightarrow Legitimacy concerns \Rightarrow Fear of being datafied	0.006	0.025	0.221	0.825	-0.044 – 0.055