

# **Cultural Workforce Diversity – How Do ‘We’ Report on It?**

**- An Investigation of How Dutch Organizations  
Communicate Their Approach(es) to Cultural  
Workforce Diversity in Annual Reports -**

Student Name: Nastasia Luca

Student Number: 413071

Supervisor: Dr. Joep Hofhuis

Erasmus School of History, Culture and Communication

Erasmus University Rotterdam

Master Media Studies – Media & Business programma Erasmus School of History, Culture and  
Communication Erasmus University Rotterdam

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Abstract

Cultural workforce diversity has become a topic of growing interest in the management and corporate social responsibility (CSR) literature because of its potential to influence organizational outcomes, depending on how organizations tackle it. At the same time, organizations have begun to communicate their outlooks on diversity and their efforts in this area for various motives. Yet, little to no advancements have been made in terms of researching potential trends in diversity reporting and the factors that may shape the latter.

Using a theoretical framework provided by Ely and Thomas (2001), this paper explores the trends in cultural workforce diversity communication across a series of fifty-five Dutch organizations over a time period ranging from 1997 to 2018. In investigating this largely underexplored field, the study also attempts to determine whether the sector a company operates in may influence the way the latter reports on diversity. In doing so, the paper employs automated quantitative content analysis as a research method and subsequently contributes towards bridging a methodological gap by developing and advancing a reliable and optimizable analysis Python-based software. While contributing to the underdeveloped literature on the topic by identifying and modelling the trends in organizational diversity reporting, due to data availability-driven limitations, the study incurs difficulties in establishing the potential factors that may influence the ways organizations choose to report on workforce diversity. Yet, the paper provides valuable insights into the topic, such as identifying the most widely reported as well as the fastest growing diversity perspective across time, as well as caveats and suggestions concerning how future research on the subject ought to move forward.

**KEYWORDS:** workforce diversity, perspectives, reporting

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## Introduction

Due to recent challenges such as globalization, migration and demographic shifts, workforce diversity has become increasingly important both in research and in practice, along dimensions such as ethnicity, nationality, race, gender and age (Cox, 1994; Barak, 2016; Bader, Kemper & Froese, 2018). According to the Central Bureau of Statistics (CBS, 2018), in the Netherlands, the percentage of the working population that has at least one non-Dutch parent has been growing steadily from roughly 13% in 1996 to 18% in 2009, to over a quarter in 2018. Moreover, the emancipation of women has led to an increased participation of females in the workforce (Ponten, 2015). Similarly, coupled with alterations of the pensionable age, growth in the ageing population has led to an increased participation of the elderly population within Dutch organizations (CBS, 2018). As a consequence, both the talent pool organizations can select their employees from and the average workplace have become more diverse (Ponten, 2015).

Whereas in the past, enhancing diversity within the organization was seen mainly as a legal and/ or moral obligation, based on recent social developments, several organizations have come to acknowledge the value-in-diversity, especially when having to “deal with diversity both in- and outside the company” (Ponten, 2015, p. 55; Ferdman, 2013; Deane, 2013). Yet, workplace diversity represents a “double-edged sword”, dependent on how an organization chooses to deal with it (Milliken & Martins, 1996, p. 403; Guillaume, Dawson, Woods, Higson & West, 2014; Olsen & Martins, 2012). That is, if well-managed, diversity can positively affect organizational performance by increasing creativity and innovation in that, taking advantage of distinct ideas, viewpoints and knowledge may enhance group productivity (Milliken et al., 1996). However, if poorly managed, diversity may hinder group performance (Guillaume et al., 2014) as a function of conflict, miscommunication, differences and discrimination (Hofhuis, Van der Zee & Otten, 2012; Milliken & Martins, 1996). Consequently, numerous organizations have opted for the active management of diversity, developing a range of approaches and policies in order to effectively tackle the potential hazards while reaping the benefits of the cultural differences across their employees (Thomas & Ely, 1996). These diversity approaches represent philosophies that reflect the companies’ “normative beliefs and expectations about the reason to diversify” (Jansen, Vos, Otten, Podsiadlowski & Van Der Zee, 2016, p. 81), together with the value of cultural diversity in relationship with work processes (Jansen et al., 2016; Stevens, Plaut

& Sanchez-Burks, 2008). The societal and practical relevance of organizational diversity approaches stems from the fact that, in providing employees a lens through which they perceive and act upon the notion of diversity, it influences how they behave towards one another (e.g., minorities vs. majorities), which impacts their psychological wellbeing and consequently, work outcomes (Van Knippenberg, Van Ginkel & Homan, 2013).

So far, existing research has investigated the effects of workplace diversity on organizational performance and employee wellbeing (Jansen, Vos, Otten, Podsiadlowski & van der Zee, 2016). Similarly, it has suggested the mediating role of organizational diversity approaches between workplace diversity and organizational outcomes (De Dreu, 2001; Van Knippenberg, 2004; Jansen et al., 2016). Equally, it has identified and labelled several perspectives that organizations may have upon cultural diversity (Thomas & Ely, 1996, 2001). Yet, many organizations not only invest resources into policy-driven workforce diversity management, but also into communicating their outlooks on diversity and their efforts in this area for various motives. In doing so, however, it is likely that diversity practices and diversity reporting represent two different aspects. For instance, Uysal (2013) suggests that organizations may use the information for different PR purposes such as coming across as ‘employers of choice’ and socially responsible organizations in the eyes of the society when attracting more diverse staff, as well as for related, greenwashing and policy compliance-motives (Jonsen, Point, Kelan & Griebel, 2019). Similarly, Sweeney and Coughlan (2008) argued that “firms report on CSR in line with what their key stakeholders expect” (p. 113), the identity of latter [stakeholders] being shaped by the sector an organization operates in. As such, according to the authors (2008), the sector an organization belongs to shapes the way the latter tends to report on CSR in general, as a function of whom they are primarily reporting to. Along these lines, in recent years organizations have been increasingly communicating their diversity perspectives and policies via corporate websites and annual reports, which are typically publicly accessible (Uysal, 2013; Sing & Point, 2006).

So far, however, since a very limited number of studies so far have addressed the topic of organizational workforce diversity communication, very little is known about *what*, *how* and *as a function of what* organizations report on workforce cultural diversity, as well as how such trends in the diversity reporting discourse have evolved over time. Singh & Point (2006) and Ponten

(2015), for instance, have examined the ways organizations communicate about diversity via corporate websites and hence, only at a single point in time. As such, no attempt to advance a longitudinal overview of how trends in organizational diversity perspectives have evolved over time has been made. Consequently, the variation (together with its adjacent causes) among and evolution of reported diversity approaches across time and across organizations has remained under researched. When investigating the workforce diversity-organizational performance relationship, however, not accounting for such variation in diversity perspectives may represent a significant shortcoming to depicting a comprehensive understanding of the former. This is relevant for both research and practice-oriented reasons, since perspectives on workforce diversity have been shown to mediate the latter's impact on organizational performance (Jansen et al., 2016; Bader et al., 2018). Similarly, no identified research has investigated what factors may predict the diversity perspective(s) an organization is likely to favor. Moreover, research so far has not provided information concerning whether diversity approaches are mutually exclusive, i.e., whether organizations choose and stick to one perspective alone and thus, whether older perspectives are left aside as new ones emerge. Understanding the aforementioned factors, nevertheless, may be vital for organizations challenged to find ways to diminish the negative outcomes and capture the benefits of diversity. This is so because based on identifying and acknowledging their own approach to diversity, an organization may be able to understand how the latter may have already influenced their diversity outcomes and to adjust accordingly to optimize future outcomes. This, nevertheless, would be the case provided that organizational workforce diversity management practices and workforce diversity reporting coincide to a significant extent. Alternatively, should they differ substantially and thus, should diversity reporting serve organizations as a mere "tool in the marketing communicators toolbox" (Sweeney et al., 2008, p. 113), it would be interesting to map and understand *how* and *as a function of what* the diversity reporting discourse has been shaped and has evolved throughout time, with the purpose of better understanding the relationship between organizations, workforce diversity, and the society at large.

In order to obtain more insight into the ways Dutch organizations communicate about workforce diversity, and in doing so, to bridge existing theoretical and methodological research gaps, an automated quantitative content analysis of various Dutch companies' annual reports was



conducted for a period of roughly two decades, depending on data availability. A distinction was made between the sectors that these companies operate in, as there were specific reasons to believe that the former are likely to influence the way organizations tend to report on workforce diversity. Based on the identified research gaps, the central research questions of this study are the following: **1) *How have reported workforce diversity perspectives across Dutch organizations evolved over time?*** and **2) *How do these perspectives relate to the sectors organizations operate in?*** To answer these questions this study investigated the prevalence of the diversity perspectives in a sample of annual reports pertaining to a series of Dutch companies over a period ranging between 1997 and 2018. In doing so, the paper relied on a theoretical framework provided by Ely et al., (2001), according to which three specific diversity perspectives were identified: *discrimination-and-fairness*, *access-and-legitimacy*, and *learning-and-integration*, respectively, which are further elaborated upon within the next section of this paper.

## Theoretical framework

### Conceptualization

#### Defining Cultural Workforce Diversity

Exploration into what scholars have written on the topic of diversity over the past two decades suggests little convergence concerning both the definition and the effects of diversity within organizations (Stevens, Plaut & Sanchez-Burks, 2008; Jonsen, Maznevski & Schneider, 2011; Heitner, Kahn & Sherman, 2013; Ponten, 2015). Originally, the notion of cultural workforce diversity stems from the latter half of the 1960s, when the US Government issued regulations to ensure that organizations would hire people from defined minority groups (Bellard & Rulling, 2001; Ponten, 2015). Along these lines, a characteristic of groups of two or more individuals, diversity typically refers to demographic distinctions of one kind or another among group members (Ely & Thomas, 2001; McGrath, Berdahl & Arrow, 1995).

Aiming diversity efforts at specific groups has led to what is nowadays referred to as a narrow definition of diversity, focused primarily on socio-cultural categories such as race, nationality, ethnicity and gender (Ponten, 2015). Yet, some argue that doing so implies the drawback of assuming that only specific groups constitute diversity, and that “only people of

color have a race, only women have a gender, only gay, lesbians and bisexuals have a sexual orientation” (Janssens & Stayert, 2001, p. 6). In turn, this may lead to the idea that a dominant group within an organization does not contribute much to the latter’s diversity; instead only their perceptions of and behaviors towards those ‘others’ must be altered (Ponten, 2015; Janssens & Stayert, 2001). Along these lines, Thomas & Ely (1996) argue that only when organizations adopt a broader, more inclusive approach to diversity can they truly reach and leverage the full potential a diverse workforce. Accordingly, a broader definition would envision diversity as “all possible ways people can differ, including values, abilities and personality characteristics or organizational function, tenure etc.” (Subeliani & Tsogas, 2005, p. 835). This approach therefore encompasses all employees and does not restrict the concept of diversity as something specific to particular groups only. According to Ferdman and Dean (2014), this inclusive approach is the best to allow organizations to reap the full benefits of diversity. Its shortcoming, nevertheless, consists in the fact that it does not allow for a clear distinction between the various differences across individuals, making the concept of diversity a rather empty, superfluous one. Or, in Konrad’s (2003) words, “[...] if individual differences are all that is necessary to make a workplace diverse, then all groups are diverse by definition, and the entire concept could become meaningless” (p. 7). In these circumstances, this study opted for a narrow, as opposed to a broad and rather vague definition, in order to allow for a subsequent effective concept operationalization and measurement necessary for pursuing the study’s research purposes adequately.

Specifically, this study defines cultural diversity as primarily related to ethnicity and nationality, in accordance with existing scholarly literature. That is, within the latter, the roots of cultural diversity are often traced back to one’s ethnical descent, which is considered a source of group-shared cultural specificities e.g., norms, values, or traditions that are different from those of other groups (Cox, 1994; Fisher, 1996). Hofhuis et al. (2015) emphasize that often, research on cultural diversity focuses on the “experiences of minority groups within a multicultural context” (p. 178). Along these lines, according to Cox (1994), cultural diversity refers to the representation, within a given social system, of individuals with noticeably different group affiliations that are of cultural significance. Similarly, the author points out the fact that cultural diversity is predominantly addressed within the context of social systems defined by a majority

group and several minority groups (Cox, 1994). Here, *majority* refers strictly to the largest, most dominant group, whereas *minority* refers to a group with appreciably fewer members represented within the social system, relative to the majority group. Subsequently, this raises the issue of context-specific societal power relations and institutions i.e., formal and informal written and spoken rules, norms and customs (North, 1990). These shape the majority group in a way that refers to a group the members of which have historically held advantages in terms of power relations (e.g., social and political status) and economic resources, relative to members of minority groups. Similarly, according to Cox (1994), in most social systems, one group may be identified as both larger in terms of size, as well as in terms of possessing greater social dominance, power and economic advantages.

### Cultural Diversity in the Netherlands

Amongst EU countries, a better overall economic development and hence, more abundant labor opportunities have led to higher immigration trends in the Netherlands, relative to its Southern- and Eastern-European counterparts (Fisher, 2013). In the Netherlands, the majority group is constituted by residents of Dutch ethnic descent, '*autochtonen*', whereas cultural minority groups are those of non-Dutch descent i.e., Western and non-western '*allochtonen*' (i.e., non-autochthonous). On the one hand, there are the western *allochtonen* – immigrants coming from European countries, the US, Canada, Australia, Japan and Indonesia – the latter having a special status as a former Dutch colony). On the other hand, there are the non-western *allochtonen* i.e., immigrants coming from rest of Asia, Africa, Latin America or Turkey (Awad, 2013). Non-western *allochtonen* represent the minority group most often being referred to as the threat of immigration, and what most of the new and restrictive policies are targeted at (CBS, 2018). Amid non-western *allochtonen*, the focus falls typically on what CBS labels as the 'classic' *allochtonen* groups, namely, people of Turkish, Moroccan, Surinamese and Antillean descent (Awad, 2013). Whereas Turks and Moroccans – most of them Muslims – began to migrate to the Netherlands as 'guest workers' in the late 1960s and were expected to leave after some time (Awad, 2013), Surinamers and Antilleans migrated from former Dutch colonies around the same time (Awad, 2013). The latter and their children are regarded as more religiously diverse and yet more secularized than the former (Awad, 2013).

Since the Antillean- and Surinamese-Dutch have become examples of “quite successful integration” (Geschiere, 2009, p. 150-151), they are often considered special cases or even left outside the *allochtonen* grouping altogether. According to Awad (2013), this implies that the *allochtonen* now addressed as the “major national problem in surveys” (p. 171) and as a “top priority in political discussions” (p. 171) are Muslim immigrants and their children. As such, in a society in which the dominant discourse portrays “Islamic migrants as problems and enemies of the nation” (Ghorashi, 2003, p. 163), the concept of *allochtonen* holds predominantly negative connotations, being experienced by many as a message of ‘being excluded (Van der Laan, 2009, p. 1). Yet, these categories of *allochtonen* represent a substantial percentage (approx. 8%) of the overall number of the inhabitants of the Netherlands i.e., Turkish – 404,459 and Moroccan – 396,539 (CBS, 2018) and some of them, of the current workforce. However, the ‘old multiculturalism’ approach to migration, associated with the welfare state (Pennix, 2005) was replaced with the current approach following a neoliberal logic. In doing so, “state subsidies and other initiatives to improve minorities’ situation in areas such as employment, education, housing, and the strengthening of minority organizations, have shrunk or disappeared” (Awad, 2013, p. 171), placing the burden of responsibility on immigrants themselves.

According to Awad (2013), the shift towards minorities’ individual accountability is accompanied by cultural essentialism in terms of discounting the structural circumstances that hinder minorities’ participation to the Dutch society and in terms of reinforcing the unidirectionality of assimilation: if a claimed “discrimination towards minorities does not exist, it is really up to minorities themselves to adapt in order to make integration possible” (p. 172). This is particularly important for the aforementioned groups of non-western *allochtonen*, especially at the workplace, labor constituting one of their main reason of migration (CBS, 2001). As such, in a context in which specific minority groups are likely to be discriminated on several grounds (e.g., political, economic, social), and in which the state has made it their responsibility to integrate into the Dutch society, it becomes even more interesting to study the approaches that Dutch organizations have towards cultural workforce diversity. This would be so especially from a CSR perspective, as it would reveal the trends in shaping the organizational diversity communication discourse in relationship with societal developments.

## Organizational Communication about Diversity

Within the history of diversity management, diversity originated from liberalist movements across the globe, and that its initiation was targeted at creating social justice as a response to demographic developments (Ahonen, Tienari, Meriläinen, & Pullen, 2014; Lorbiecki & Jack, 2000). Similarly, literature suggests that later on, diversity was regarded as favorable for organizational outcomes, although it has been shown that the business case for diversity does not always lead to positive organizational performance outcomes (Williams & O'Reilly, 1998). Next to the business case, the justice case of diversity is based upon the idea of creating equal within-workforce treatment and opportunities. As such, organizations seemingly recognize that societal justice needs to be applied in business, the notions of 'best practice employer', 'employer of choice', and 'doing the right thing' being particularly appealing to them (Van Kraaij, 2016). Moreover, on top of aspects such as social justice, equality and discrimination (Ahmed, 2012) as well as its contribution to organizational performance, diversity management has been linked to corporate social responsibility (CSR) and image, organizational reputation and hence and brand building (Swan, 2010). Relatedly, organizations seem to be aware that insensitivity towards the issue of diversity may result in lower employee retention rates, missing out on potential employees, as well as creating a negative image for the public (Van Kraaij, 2016). Thus, along these lines, in recent years organizations have increased the communication their diversity perspectives and policies via corporate websites and annual reports, which are typically publicly accessible (Uysal, 2013; Sing & Point, 2006). Whereas this makes corporate websites and annual reports tools reports interesting communication instruments to research the organizational diversity reporting discourse, research on how organizations communicate about diversity via corporate websites is scarce, and research on how they do so via annual reports seems to lack altogether (Singh & Point, 2006; Uysal, 2013; Ponten, 2015). Thus, little is known about the way organizations are likely to report on cultural workforce diversity, and about how the trends in doing so have evolved over time.

In fact, the lack of a *longitudinal* overview of the organizational diversity reporting discourse is likely to stem partly from overlooking annual reports (the content of which remains the same once published, thus offering the advantage of a larger time coverage) as units of analysis, as opposed to corporate websites, the 'old' content of which disappears when updates are made. Moreover, no studies thus far seem to have investigated the factors that influence

which perspectives on diversity organizations are likely to adopt, except for Bader et al. (2018), who identified certain configurations of individual and organizational characteristics that are likely to predict executives' adoption of particular diversity perspectives in German organizations. Yet, their study is related to executives' attitudes towards workforce diversity as opposed to what organizations communicate in either corporate websites and/ or annual reports, as well as what policies they actually implement. Likely, there is a fundamental differentiation between how executives personally relate to workforce diversity, how organizations report on it, and what they do in practice, the latter being a rather ambitious topic to research. For this reason, despite an expected "value gap" between what companies say and what they do (Cording, Harrison, Hoskisson & Jonseon, 2014), the former [reporting] may be considered one of the closest, most feasible to investigate proxy of the latter (what policies organizations actually implement, i.e., authenticity). Yet, this should be regarded critically, in the light of the aforementioned "value gap", or difference between what companies claim and what they do in practice. Additionally, existing research suggests a potential endogenous relationship between organizational diversity perspectives and executives' preferences for either of them. In doing so, it indicates that executives are likely to internalize existing organizational diversity values, which makes them prone to reinforcing the latter in a way that makes it challenging to identify which of the two comes first (Kunze, Boehm & Bruch, 2014; Nishii, 2013). Thus, it is desirable to look for exogenous, more structural factors that are likely to shape organizations' specific diversity approaches. To be able to investigate these, however, it is necessary to first provide a conceptual framework that explicitly defines organizational approaches to cultural diversity.

#### Defining Organizational Approaches to Cultural Diversity

Organizational approaches to diversity represent factors that influence an organization's "ability to leverage the potential of a diverse workforce and diminish potential negative effects" (Bader et al., 2018, p. 1). These perspectives, which can be assumed by organizations, executives, individuals as well as groups of individuals, "shape organizational processes and policies and influence whether employees feel respected and valued at their work place and how people perceive the meaning of diversity at work" (Bader et al., 2018, p. 1). These approaches shape organizational diversity climates, i.e., "shared perceptions of policies, practices and procedures" (Bader et al., 2018, p. 1), and act as a catalyst for either increasing or decreasing

employees' psychological wellbeing and consequently, productive workplace outcomes. Specifically, the approach an organization has towards diversity provides employees a framework through which they perceive the meaning and act upon the idea of diversity (Van Knippenberg, Van Ginkel & Homan, 2013). In turn, the way employees relate to diversity determines how they behave towards one another (i.e., typically majorities towards minorities and vice-versa). Subsequently, this impacts employees' psychological wellbeing as a function of perceived inclusion, i.e., the extent to which they feel respected and valued (Bader et al., 2018). Next, the degree of perceived inclusion together with the psychological well-being of employees affects groupwork outcomes and hence, organizational performance. Therefore, an organization's approach to diversity represents a factor that influences the former's ability to leverage the potential of a diverse workforce and in doing so, to diminish potential negative outcomes (Bader et al., 2018). In doing so, the societal and practical relevance of diversity perspectives consists in their ability to act as a mediator between workplace diversity and work outcomes (De Dreu, 2001; Van Knippenberg, 2004; Jansen et al., 2016).

Referring to workforce diversity approaches, scholars such as Stevens, Plaut, and Sanchez-Burks (2008) have developed the concepts of '*colorblindness*' and '*multiculturalism*'. Whereas the former emphasizes the equal treatment of employees and ignoring differences in the context of decision-making processes, as well as the focus on individual achievements and qualifications over any other factor (Stevens et al., 2008), the latter stresses that cultural differences among employees should be acknowledged and integrated, since they are beneficial for work processes and outcomes (Cox, 1991; Stevens et al., 2008; Jansen et al., 2016). Yet, Stevens et al.'s (2008) conceptualization of diversity perspectives does not provide substantial detail concerning the implications of adopting such approaches within an organization. For this reason, this study opted for the conceptualization of diversity perspectives in accordance with Thomas and Ely's (1996; 2001) work, which brings with it more complexity concerning organizational approaches to diversity, as well as a range consisting of three, as opposed to merely two perspectives. Relatedly, the scholars' work (1996; 2001) was among the main factors shifting the focus of diversity literature from fair, equal employment opportunities and minority rights towards finding and acknowledging value in diversity and ensuring the inclusion of culturally diverse employees. Lately, this shift is also reflected in more recent concepts, such as

the *diversity climate* (Hofhuis et al., 2016), or *inclusion climate* (Dwertmann & Boehm; Nishii, 2013; Stoermer, Bader & Froese, 2016). Importantly, however, diversity approaches shall not be mistaken with *climates* – “shared perceptions of policies, practices and procedures” (Bader et al., 2018, p.) –, which are factors that are shaped by the former. Moreover, diversity perspectives reflect an organization’s normative principles and expectations vis-à-vis the reason to diversify as well as the value of cultural diversity in relationship with work processes and outcomes (Jansen et al., 2016; Stevens et al., 2018). Within their pivotal article, Thomas and Ely (1996) identified three organizational approaches towards diversity. First, there are the *discrimination-and-fairness* and *access-and-legitimacy* paradigms, two perspectives that the authors claimed to have guided most diversity initiatives until the time of writing.

The *discrimination-and-fairness* perspective represents the dominant way of understanding diversity. Accordingly, leaders who see diversity through this lens tend to focus on equal and fair opportunity, recruitment and treatment, as well as compliance with the national equal employment opportunity requirements. The authors summarized the underlying logic of this perspective as follows: “*Prejudice has kept members of certain demographic groups out of organizations such as ours. As a matter of fairness and to comply with federal mandates, we need to work toward restructuring the makeup of our organization to let it more closely reflect that of society. We need managerial processes that ensure that all our employees are treated equally and with respect and that some are not given unfair advantages over others*” (Thomas et al., 1996, p. 2). Yet, through this perspective, progress in diversity is only measured by how well the organization accomplishes its recruitment and retention targets, rather than by the extent to which conditions within the organization allow employees to make use of personal assets and perspectives in order to perform more effectively (Thomas et al., 1996). In this sense, “the staff [...] gets diversified, but the work does not” (Thomas et al., 1996, p. 3). Consequently, this perspective fails to see diversity as a value generator for the organization and, forcing employees to conform to the culture of the dominant white majority, it is an approach of *assimilation* (Ely et al., 2001). Subsequently, by restricting employees’ ability to openly express their “work-related but culturally based differences” (Ely et al., 2001, p. 3), this paradigm hinders the organization’s ability to more deeply understand and improve its own strategies and practices. Simultaneously, it prevents individuals from personally identifying with their work, which represents a “critical



source of motivation and self-regulation in any business environment” (Thomas et al., 1996, p. 3).

Second, there is the *access-and-legitimacy perspective*, which emerged as a consequence of an increasingly competitive and globalized climate of the 1980s and ‘90s, wherein diverse ethnic groups were increasingly gaining consumer bargaining strength. The logic behind is that an organization needs to be demographically more diverse to help gain access to the emerging segments. In doing so, diversity is not merely regarded as fair, but as bringing business benefits: “*We are living in an increasingly multicultural country, and new ethnic groups are quickly gaining consumer power. Our company needs a demographically more diverse workforce to help us gain access to these differentiated segments. We need employees with multilingual skills in order to understand and serve our customers better and to gain legitimacy with them. Diversity isn’t just fair; it makes business sense*” (Ely et al., 1996, p. 5). Typically operating in an environment characterized by substantial diversity among customers, clients or labor pool, organizations which adopt this perspective see workforce diversity as either a “clear opportunity or an imminent threat to the company” (Ely et al., 1996, p. 5). However, even though a step ahead of *discrimination-and-fairness* organizations in the sense of acknowledging the benefits of workforce diversity, *access-and-legitimacy* organizations do so only marginally. That is, the latter are “too quick to push staff with niche capabilities into pigeonholes without trying to understand what those capabilities really are and how they could be integrated into the company’s mainstream work” (Thomas et al., 1996, p. 5). Hence, the reason to diversify arises from urgent and often “crisis-oriented needs for access and legitimacy” (Thomas et al., 1996, p. 6). Once the organization appears to have reached its goal, leaders rarely ever attempt to identify and study the culturally-derived skills, viewpoints and practices that worked so well, and neither do they consider how they could incorporate and learn from those in order to capitalize on diversity on the long run (Thomas et al., 1996). Hence, while the *discrimination-and-fairness* approach is centered around *assimilation* – in which the goal is to attain a demographically representative workforce whose members treat each other the same (Thomas et al., 1996) – the *access-and-legitimacy* paradigm is one of *differentiation*, in that the approach is about difference emphasized rather than leveraged, with the objective of placing different individuals where “their

demographic characteristics match those of important constituents and markets” (Thomas et al., 1996, p. 6).

Apart from lacking long-run perspective and thus failing to grasp and exploit the full potential of diversity, the *access-and-legitimacy* perspective may also leave employees feeling exploited. That is, many organizations deploying this perspective have diversified in the particular areas in which they needed to interact with specific niche-market segments, subsequently generating a sense of devaluation and exploitation among recruited individuals and a sense that opportunities in other areas of the companies were restricted to them (Thomas et al., 1996). Accordingly, many of these individuals report that whenever these organizations need to downsize or reduce their marketing scope, it is typically the special departments that are typically the first to go (Thomas et al., 1996.). Similarly, often times large organizations see the experience of these employees as limited or specialized, even though many of them had in fact begun their careers in the ‘mainstream’ market before moving to niche markets wherein their cultural backgrounds represented acknowledged assets (Thomas et al., 1996). As such, whereas this perspective may be considered a ‘next-level’ version of the *discrimination-and-fairness* perspective, its improvements are rather slight, marginal and even superficial.

Last but not least, Thomas and Ely introduced what in their seminal article (1996) they referred to as the ‘*emerging paradigm*’, which they refined and re-named the ‘*integration-and-learning*’ perspective in a later article (Ely et al., 2001). This perspective arose as a function of an initially small number of organizations acknowledging that having relied on one of the two above approaches to guide their diversity efforts had not allowed them to capitalize on the full potential of their diverse workforce. In doing so, these organizations recognized the fact that employees typically make work-related decisions and choices based on their cultural background, i.e., “choices made because of their identity-group affiliations” (Thomas et al., 1996, p. 6). Subsequently, these companies endeavored to develop diversity outlooks and models that allowed them to *incorporate* employees’ perspective into the core work of the organizations and to “enhance work by rethinking primary tasks and redefining markets, products, strategies, missions, business practices, and even cultures’ (Thomas et al., 1996 p. 6). As such, these organizations fully recognize the value in diversity and strive to learn from it and subsequently incorporate its distinct aspects into the work and organizational culture and practices and thus,

tapping into diversity's true benefits. In doing so, whereas the *discrimination-and-fairness* and the *access-and-legitimacy* perspectives represent *assimilation*- respectively *differentiation*-based approaches, this paradigm contrasts both as it centers itself around the overarching idea of *integration*. According to Thomas et al. (1996), whereas *assimilation* goes too far in pursuing sameness and *differentiation* overshoots into the opposite direction, the new, *integration*-based model transcends both. That is, similar to the *access-and-legitimacy* perspective, it recognizes cultural differences among employees but at the same time, also acknowledges the value in these differences and, in doing so, allows the organization to internalize and capitalize on the differences among employees in a way that facilitates learning and growing. According to the authors, the logic behind this approach can be summarized as follows: "We are all on the same team, *with* our differences, not *despite* them" (Ibid., p. 7). This way, diversity becomes a substantial resource for continuous learning and adaptive change.

## Hypotheses

### Trends in cultural workforce diversity reporting throughout time – Research Question 1.

Given nowadays' migration-driven demographic circumstances, coupled with specific government regulations and corporate social responsibility (CSR)-driven behavior, "in their quest to attract talent and appear as an employer of choice, organizations must articulate the benefits of having a diverse and inclusive workforce" (Jonsen et al., 2019, p. 1). This is so not only because in nowadays' increasingly competitive business environment organizations acknowledging the business benefits of workforce diversity (Ely et al., 2001), but also because by communicating the attractiveness of its workplace, an organization increases its exposure to the business environment as socially responsible employer of choice, as a function of diversity and inclusion branding (Jonsen et al., 2019, p. 1). Thus, even though the study's first research question remains largely exploratory in nature, it seems reasonable to expect certain trends in the development of workforce diversity reporting. Consequently, the following hypothesis was formulated: **Hypothesis 1: It is expected to see an overall increase in workforce diversity reporting across organizations throughout time, with the *discrimination-and-fairness* perspective being the most prevalent and fastest growing one across time and across all organizations, given its literature-established status as a dominant paradigm** (Thomas et al.,

1996). Yet, increases in the *access-and-legitimacy* and *learning-and-integration* perspectives as emerging paradigms are also expected to occur as a means of reflecting changes in organizational approaches to diversity as a function of adapting to an increasingly diverse business environment.

#### The Potential Relationship Between Cultural Workforce Diversity Reporting and the Sector an Organization Operates in – Research Question 2.

Uysal (2013) suggests that organizations may communicate certain diversity perspectives via annual reports for CSR-related, PR purposes such as being seen as socially responsible. Accordingly, Sweeney et al. (2008) argue that “firms report on CSR in line with what their key stakeholders expect, thus giving evidence for CSR reporting as another tool in the marketing communicators toolbox” (p. 113). Using stakeholder theory, the authors (2008) found that the sector an organization operates in shapes the way the latter tends to report on CSR, as a function of whom they are primarily reporting to. In doing so, the scholars examined a restricted list of seven sectors (Financial Services, Pharmaceutical – Medical, Pharmaceutical – Health & Beauty, Telecommunications, Automobile, Oil & Gas/ Industry, and Retail). Similarly, Brammer, Millington & Pavelin (2007) argued that in the UK, corporate board organizational diversity is influenced by a firm’s external business environment (e.g., sector characteristics). Yet, despite referring to diversity communication as a means for corporations to advance a seemingly socially-responsible identity, existing literature does not suggest which approach(es) to diversity organizations are more likely to communicate, and why. As such, along these lines of regarding workforce diversity communication as a CSR-related topic, this study proposes several hypotheses concerning the way organizations are likely to report on diversity in a CSR context based on the sectors they pertain to and thus on whom their main stakeholders are. In doing so, the study examines a scholarly literature-derived, non-exhaustive list of sectors, the stakeholder-related characteristics of which are likely to shape different ways in which organizations tend report on workforce diversity. Accordingly, whereas the study’s first research question is rather exploratory in nature, several sector-related preliminary hypotheses to answer its second research question are advanced. Importantly, the sectors included were chosen as a function of very

restricted scholarly literature on the topic, combined with empirically-driven limitations such as the existence of a limited number of Dutch companies operating within some of the sectors, as well as data availability e.g., English-written, publicly available annual reports. On a distinct and yet relevant note, the following hypotheses leave the *discrimination-and-fairness* perspective aside, since it is expected that the latter has remained the most prevalent throughout time and across all organizations, given its literature-derived status as the dominant paradigm (Thomas et al., 1996).

**Hypothesis 2 A. and B.:** According to Raju (2014), organizations operating in the financial services sector are particularly risk averse, whilst *customers* and *employees* make up their primary stakeholders (Sweeney et al., 2008). Together, these crystalize into the expectation that financial institutions are likely to encourage a degree of workforce diversity large enough to tap into emerging niche markets (of *customers*), but small enough to ensure that the risks accompanying workforce diversity management are minimal. Similarly, Subeliani & Tsogas' (2005) study which showed that Rabobank's diversity management practices were, at the time of writing, aimed at attracting and retaining (i.e., target-oriented) ethnically diverse customers to the bank rather than at advancing "the quality of working life and career prospects of ethnic minority employees" (p. 831) – an aspect that is stereotypically quite the opposite (Dishman, 2015). Together, these lead to the study's first hypothesis, **H2. A.: Throughout time, the *access-and-legitimacy* perspective is expected to be more prevalent within the financial sector relative to the other sectors assessed. H2.B.: Throughout time, the *access-and-legitimacy* perspective is expected to have risen at a higher rate within the financial sector relative to the other sectors assessed.**

**Hypothesis 3 A. and B.:** According to Mitnick (2000), organizations operating in the industrial sector (e.g., oil & gas) that typically have a negative impact on one CSR area (such as the *environment*) tend not to report this to a great extent. Instead, to compensate, they choose to focus on other areas wherein they have a more positive impact (e.g., being inclusive to a significant extent). Together, these aspects lead to the study's second hypothesis, **H3. A.: Throughout time, the *learning-and-integration* perspective is expected to be more prevalent the industrial sector, relative to the other sectors assessed. H3. B.: Throughout time, the**

***learning-and-integration* perspective is expected to have risen at a higher rate within the industrial sector relative to the other sectors assessed.**

**Hypothesis 4.:** *Customers* represent the primary stakeholders of organizations operating in the telecommunication sector. This, coupled with the very dynamic competitive nature of the sector, demand a sound understanding of customer needs (especially particular niches), and a “greater range of creative thinking and fresh ideas that challenge established practices” (Molina, Lin & Wood, 2015, p. 2). As such, diversity is considered “a way to maximize the potential talent pool, and, ultimately, to positively impact the bottom line” (Molina et al., 2005, p. 2), thus improving the financial performance of companies operating in the telecommunications sector (GSMA, 2015). Together, these facts suggest the fact that **H4. A.: Throughout time, the *learning-and-integration* perspective is expected to be more prevalent the telecommunications sector, relative to the other sectors assessed. H4. B.: Throughout time, the *learning-and-integration* perspective is expected to have risen at a higher rate within the telecommunications sector relative to the other sectors assessed.**

**Hypothesis 5.:** Having *customers* as primary stakeholders, organizations in the retail sector are facing an increase in purchasing power of minorities as a consequence of demographic shifts (Foster & Harris, 2005; CBS, 2018), which represent “a clear opportunity or an imminent threat to the company” (Thomas et al., 1996, p. 5). Consequently, efficiently tapping into these markets as well as expanding into international markets requires that organizations adjust accordingly in a way that reflects the composition of the society (Communicaid, 2019; Carrasco, 2018). As such, it is expected that **H5. A.: Throughout time, the *access-and-legitimacy* perspective is expected to be more prevalent within the retail sector relative to the other sectors assessed. H5. B.: Throughout time, the *access-and-legitimacy* perspective is expected to have risen at a higher rate within the retail sector relative to the other sectors assessed.**

Together, these can be summarized into one, more encompassing hypothesis, stating that **throughout time, the *access-and-legitimacy* perspective is expected to be more prevalent and to have risen at higher rates within the retail and the financial sectors relative to the remaining two sectors. On the flipside, the *learning-and-integration* perspective is expected**

**to be more prevalent and to have risen and higher rates within the industrial and the telecommunications sectors relative to the retail and financial sectors.**

## Methodology

### Units of Analysis – Why Annual Reports

According to Gray, Kouchy & Lavers (1995a), an annual report can be regarded as a channel for message communication within independent systems. While organizations are indeed using a wide range of alternative media to report their CSR activities (e.g., press releases, interim reports, company websites, newspaper advertisements etc.), the annual report remains the only document automatically sent to all shareholders by all companies (Adams, Hill & Roberts, 1998). As such, the annual report represents the main means of communication used by firms to disclose CSR (and other e.g., financial) information (O'Dwyer, 2003), becoming more available online for other stakeholders to view, given reasons of transparency (de Bussy, Ewing & Pitt, 2003). This, however, comes with certain potential limitations in the sense that “firms report on CSR in line with what their key stakeholders expect, thus giving evidence for CSR reporting as another tool in the marketing communicators toolbox” (Sweeney et al., 2008, p. 113). However, this should not necessarily constitute an issue, since the focus of the study is that of investigating the ways in which companies report on workforce cultural diversity, as opposed to what they do in practice. Assessing annual reports should, nevertheless, be carried out in a skeptical light. In doing so, the focus falls on *image building* through communication and PR practices, as opposed to assessing which diversity approaches organizations endorse in practice. As such, the focus becomes PR- and opinion-oriented, assessing what organizations are likely to state in annual reports based on what they deem ‘suitable’ to report. Moreover, annual reports were chosen as units of analysis because they represent the only means through which the temporal (i.e., longitudinal) dimension of the study’s research question can be investigated. This is so since as opposed to corporate websites – the content of which is permanently updated and hence not constant, the content of annual reports remains unaltered once published. Additionally, apart from their publicly accessible character and temporal coverage, annual reports come with the advantage of having a digital format that facilitates large-scale, software-based analysis.

### Time Dimension, Population of Inference and Sampling

The population of inference was that of Dutch organizations. This was so because a similar, yet unpublished endeavor to assess organizational diversity perspectives across time in the Netherlands was attempted once before (Hofhuis, Schafraad, Van Odijk & Trilling, 2014). The latter, nevertheless, with relatively little effort to refine the generated software script to the point of yielding a satisfactory degree of precision and recall. Moreover, the study investigated diversity approaches over a time period starting from 1997 (when annual reports had become available online) until 2013. As such, it was deemed as particularly interesting to continue investigating how trends in reporting have developed over time by selecting at least a few of the companies assessed within that particular study using a new, more refined, precise and reliable code. Furthermore, the existing study came with the advantage of a series of already collected data (i.e., a total of 405 annual reports ranging from 1997 to 2013, pertaining to an overall number of 40 companies which had been selected from Volkskrant Top 100 Dutch) that the present study built on in order to examine potential trends and changes in workforce cultural diversity reporting over time. On top of these, in order to increase the sample size, 15 more companies were added as a function of data availability, attempting to cover a range starting from 1997 up to 2018. Similarly, the initial sample of 40 companies was completed – in terms of annual reports – to the extent possible, from 2014 up to 2018. Together, this yielded an overall of 55 companies and a corresponding number of 909 annual reports. In doing so, the time frame this study aimed to assess was that of roughly two decades, starting from 1997 and up to 2018, and the companies within the sample were included based on whether they provided English-written annual reports for more than 60% of the aforementioned time range, in order to avoid missing data-driven biases.

To answer the study's second research question, four sectors were selected, based on scholarly literature, coupled with empirically-driven constraints. While there is no rule of thumb concerning the optimal sample size for each sector, the study tried to cover as many organizations as possible, aiming for at least eight organizations per sector. However, whereas three out of the four investigated sectors encapsulated more than eight companies each (i.e., Financial – 11; Industry – 9; Retail – 8), the Telecommunications sector included merely four companies, given a fairly limited number of organizations both operating in the sector in



question as well as providing English-written annual reports. In order to answer the first research question, however, as previously mentioned the, study's sample range was extended as a function of data availability, by including companies that were consistent in reporting in English over a long enough period of time. The units of were collected online, predominantly from the organizations' official corporate websites, as well as from *jaarverslag.com*. Nevertheless, having relied on the public character of annual reports resulted into data availability-driven limitations, as not all the researched companies have been consistent with maintaining all annual reports online throughout time. However, these are addressed within a later, limitation-dedicated section.

### Operationalization & Automated Quantitative Content Analysis

To answer the study's research questions, an automated content analysis of 909 annual reports pertaining to 55 different companies was performed using PyCharm, an integrated development environment (IDE) used in computer programming specifically for Python language. The library used in PyCharm was that of Regular Expressions (Regexlib), a sequence of characters that define a certain search pattern. The latter is a technique developed in theoretical computer science and formal language theory and is a kind of "mini-language used to perform pattern matching with strings" (CPPreference, 2019, pg. 1). The purpose of using this software was that of searching for, identifying, labelling and counting the various diversity perspectives within annual reports. The use of this methodology and software was deemed as most suitable first of all because it facilitated the scanning of a substantial number of units of analysis (i.e., annual reports) over a very short period of time, which would have otherwise not been feasible unless automated. Likewise, the method was chosen because it allowed for the development of a script flexible enough to allow for significant variance in terms of the language (i.e., expressions; adjusting to include both British and US English spelling) used to detect the perspectives in question, as well as label and count them accordingly. Similarly, given its specific configurations, the software allowed the researcher to easily (re-)test, adjust and perfect the code until the best fit in terms of reliability and *precision-recall* balance was found. Additionally, the program can always be further improved and may be applied to other organizations, periods of time and countries, just by changing the input (i.e., PDF documents).

The logic behind this methodology is as follows. The raw data (i.e., annual reports) served as input. Specifically, the reports available in PDF format were downloaded and uploaded onto the Python console. Then, they were converted into text format so that the program could read them sentence by sentence. Subsequently, a list of *trigger words* and three lists of *match words* were created. On the one hand, the *trigger words* list consisted of specific words indicative of the potential existence of any of the three diversity perspectives, such as “cultural diversity”, “ethnic diversity”, or “diverse workforce composition” (see Appendix B of this paper). These were considered neutral indicators (i.e., not perspective-specific) of either of the diversity approaches and were used as a perspective detection starting point. The *match words* lists, on the other hand, consisted of specific (combinations) of words representative of each diversity perspective (e.g., “we value diversity” would be an indicator of the *Learning and Integration* perspective, whereas “meet diversity targets” would indicate the *Discrimination and Fairness* perspective). In doing so, the idea behind this was that the program would run through each sentence within all annual reports and looks for *trigger words*. Then, whenever a *trigger word* was found, the program looked for *match words* within a range of four sentences and, whenever it found (a) *trigger word(s)* and (a) *match word(s)* within that range, it would label and count it as a specific perspective. Subsequently, after the four-sentence range, it would continue to further search for *other trigger words* and potential *matches*, continuing the same process until the end of the PDF document. The four-sentence range was established as a ‘best fit’ as a function of trial-and-error repetitions with the purpose of seeing which alternative would yield the most accurate and precise outcome.

The perspectives were operationalized both deductively and inductively. Specifically, first, certain (groups of) key words representative of each of the three perspective were identified based on Ely et al.’s (2001) article on workforce cultural diversity. Subsequently, the four (i.e., the *trigger words* and the three *match words*) lists were created. Then, a sample of 24 randomly selected annual reports out of the overall sample of 909 reports was drawn and used as a means of testing and optimizing the developed code. First, all 24 reports were scanned manually, and each perspective found was labelled accordingly. Next, the documents were uploaded onto and run via PyCharm, for the purpose of comparing the program-yielded results with the manually-labelled perspectives as a means of testing the program. Initially, perspectives were counted per paragraphs, meaning that should the same perspective have occurred more than once within the

sentences of a paragraph, it would have been counted one time. The reason behind this was the intention of building a program that could count the frequency of each perspectives per report. In doing so, the paragraph-length was chosen because typically each paragraph is dedicated to a particular idea, and therefore, whereas counting the same perspective multiple times would be classified as ‘double counting’, doing so throughout multiple paragraphs would not.

Subsequently, the 24 reports were uploaded onto and run via PyCharm. Because of the *per-paragraph* parsing of the documents, however, the program experienced library-specific difficulties in terms of reading and translating the PDF documents into text documents accurately, and consequently, in terms of labelling perspectives appropriately. As such, a new, *per-sentence* parsing method was used. The latter attempted to simulate the paragraph division as a function of an established sentence range of four, which was determined by repeatedly changing the sentence range followed by running the program and comparing its output with the manually-labelled one. In doing so, the range of 4 sentences yielded the outcome that most closely resembled the manually-derived one.

Since the word lists were relatively limited, given that initially, they were only literature-based, the program initially yielded a fairly inaccurate output (i.e., several false positives as well as false negatives). Subsequently, since the program *de facto* shows exactly the combinations of words it used to label the perspectives in question, the code was adjusted accordingly so that it would yield more precise and accurate output. This operation was also performed by scanning the annual reports manually and adding more specific, annual report-derived expressions to the existing word lists in order to increase the program’s perspective recognition ability. This optimization process demanded a significant amount of time as it entailed a substantial amount of reiterations, comparisons with the manually-established labels and subsequent code alterations, repeated enough times in order to reduce inaccuracies to roughly 10%, as described within the *Intercoder Reliability* section of this paper. More specifically, the optimization procedure entailed the fitting of words and spaces between the words in ways that would yield adequate expressions encompassing enough to act as a common denominator across reports and in doing so, to avoid false negatives, and yet, narrow enough not to generate false positives. Likewise, the code was adjusted in a such a way that accounts for terms in both British and US English spelling, as well as for variation in morphology by using code-specific stemming

methods. In doing so, Regular Expressions 101 ([www.regex101.com](http://www.regex101.com)) was used as a tool serving the purpose of testing whether the generated code would work as intended.

### Intercoder Reliability

In order to ensure reliability, two coders (i.e., researcher and peer researcher working on a similar project) worked independently with a sample twenty-four randomly selected annual reports to identify, label and count the diversity perspectives within each document. The intercoder reliability was assessed using Krippendorff's Alpha Coefficient. First, reliability was assessed between the two coders, yielding a satisfactory score of  $\alpha = .9094$ . Next, the output of the Python script was added and the reliability between both coders' results and those of the program was assessed, yielding an even higher coefficient of  $\alpha = .9099$ . This reflects a certain degree of disagreement between the two researchers, mediated to some extent by the Python script. Specifically, this ~10% discrepancy occurred due to the fact that certain perspectives were operationalized in such a way that on few occasions, when a PDF formatting issue occurred, the program would yield false positives, most of which were related to the way the *discrimination-and-fairness* perspective was operationalized.

More explicitly, when manually coding the 24 annual reports, the terms 'policy' and/ or 'diversity policy' were considered representative of the *discrimination-and-fairness* perspective. Subsequently, the Python script was programmed in such a way that it would count the occurrence of the aforementioned terms under the label of *discrimination-and-fairness*, even though this was not always the case, thus generating a few false positives. Specifically, such false positives included, for example, bullet points encapsulating the aforementioned key terms exclusively, even though contextually, they would not necessarily be representative of the perspective in question. To adjust for this, on the one hand, one of the researchers opted to include these false positive in her counting, whereas the other did not. The program, on the other hand, included some but not all, given certain PDF formatting-related characteristics, which is why the score improves slightly when including the Python yields to the intercoder reliability test. This is suggested the alpha scores yielded when testing the intercoder reliability between one researcher and the Python code ( $\alpha = .9332$ , reflecting the researcher's count of false positive in a similar manner to that of the program) and between the second researcher and the Python code ( $\alpha = .8872$ , reflecting the researcher's choice of not counting false positives). When tweaking the code to eliminate the false positive-generating key words, the program yielded

several false negatives. The number of false negatives, however, not only outweighed that of false positives, but was also considered to have led towards more misleading outcomes and therefore, not excluding potentially false positive-generating key words was the researchers' deliberate decision.

Factors assessed	$\alpha$ -Score
<i>Researcher 1 and Researcher 2</i>	.9094
<i>Researcher 1, Researcher 2, and Python script</i>	.9099
<i>Researcher 1 and Python script</i>	.9332
<i>Researcher 2 and Python script</i>	.8872

Table 1. Intercoder reliability  $\alpha$ -scores.

## Results – Data Analysis and Interpretation

To answer the study's first research question and thus, to investigate the way trends in diversity reporting have evolved throughout time, the perspectives were first identified, labelled and counted by the PyCharm script, and aggregated into a .csv file as number of counts per perspective per annual report. Subsequently, the data were transformed in such a way that reflected whether a perspective was at all present within each annual report, as opposed to how many times it was present in the latter. As such, the presence of any perspective was labelled as "1", whereas its absence as "0". Then, to calculate the absolute number of perspectives per year, the abovementioned counts were summed up. Then, to avoid skewing the data as a function of unequal availability of annual reports across companies for each year, the perspectives counted in relative numbers. More specifically, the way the perspectives were counted across time consisted in using the following formula: e.g., *discrimination-and-fairness*: **number of reports mentioning *discrimination-and-fairness* in one year, divided by the total amount of reports of the year in question**. This would in turn ensure that trends in diversity reporting would not fluctuate as a function of the number of annual reports available per each year. As such, the transformed data would represent the percentages of organizations reporting a certain perspective per year.

Having initially plotted the data into an Excel Spreadsheet graph confirmed the study's first hypothesis, showing an increase in reporting all three perspectives across time, with *discrimination-and-fairness* being, as hypothesized, the most prevalent, as well as the fastest growing among all perspectives, as depicted in the table (Table 1.) and graph (Figure 1.) below. Moreover, the graph provided a preliminary insight into what possible models would best fit the data i.e., either linear or quadratic of degree 2 (i.e., quadratic) regression. To provide a clear answer this question, however, the transformed data file was uploaded onto and analyzed via RStudio, for the purpose of investigating the validity of the two models. Subsequently, both a linear and a quadratic model were developed for regressing all three perspectives (as the study's dependent variables) on Years, the study's independent variable. In doing so, each model's fit was initially assessed using the model in question's R-squared ( $R^2$ ) – a statistical measure representing the proportion of the variance within a dependent variable that is explained by an independent variable in a regression model –, and its significance value (i.e., p-value).

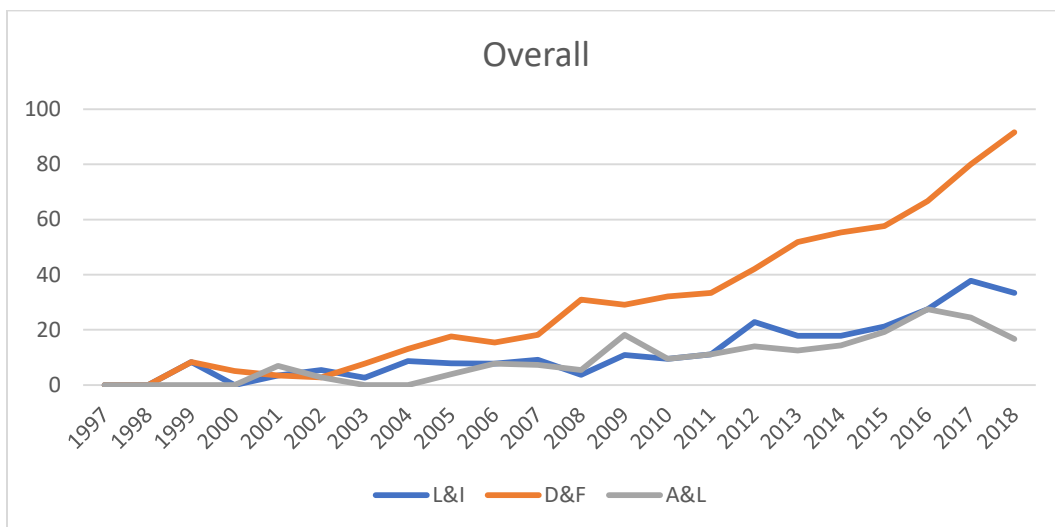


Figure 1. Percentage of diversity perspectives 1997-2018.

*Grosso modo*, all three perspectives showed relatively high  $R^2$  values with p-values lower than the .05 threshold for both linear and quadratic models, although the  $R^2$  scores of the quadratic models tended to be relatively higher relative to the linear models for all three perspectives, indicating a potential better fit. In terms of *discrimination-and-fairness*, for

instance, the linear model's  $R^2$  is that of .9012, whereas the  $R^2$  of the quadratic model is that of .9788, both models with significant  $p < .001$  and  $p < .001$ , respectively. Next, the  $R^2$  of the linear model for the *learning-and-integration* perspective is that of .7686, with a  $p < .001$ , while the  $R^2$  of its quadratic model is equal to .8816, with  $p < .001$ . Similarly, the linear model's  $R^2$  for the *access-and-legitimacy* perspective is equal to .7844, while that of the quadratic model is equal to .8087, with significant  $p < .001$  and  $p < .001$  values, respectively. Whereas the better fit of the quadratic model as opposed to its linear counterpart is fairly distinguishable for the *discrimination-and-fairness* perspective when performing a curve estimation for both quadratic models (Figure 2., Figure 3., and Figure 4.), this is not the case for the remaining two perspectives. This is illustrated in the graphs below, wherein the red line represents the linear model, and the blue one represents the quadratic model.

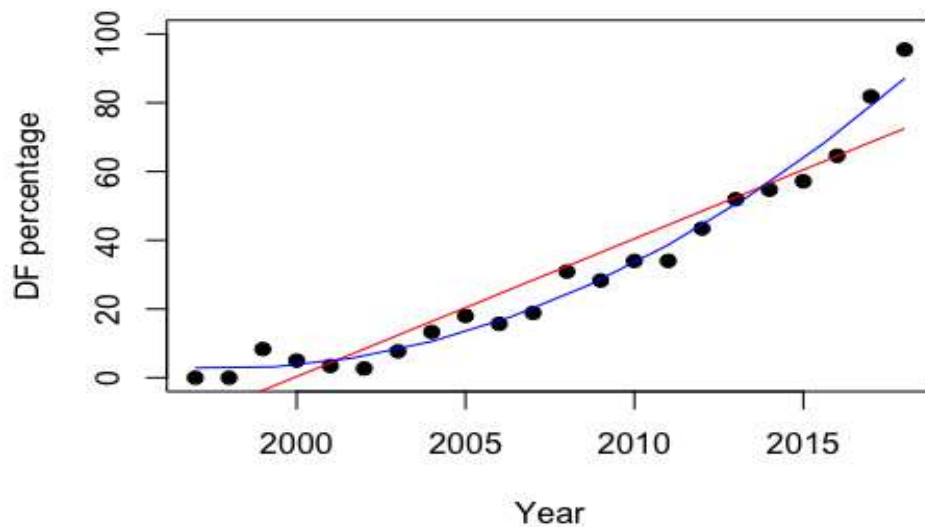


Figure 2. Curve estimation plot discrimination-and-fairness.

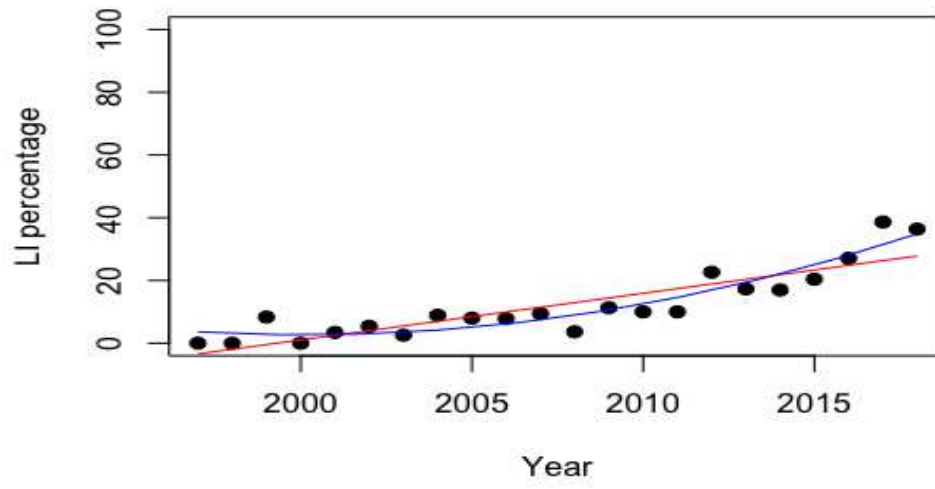


Figure 3. Curve estimation plot learning-and-integration.

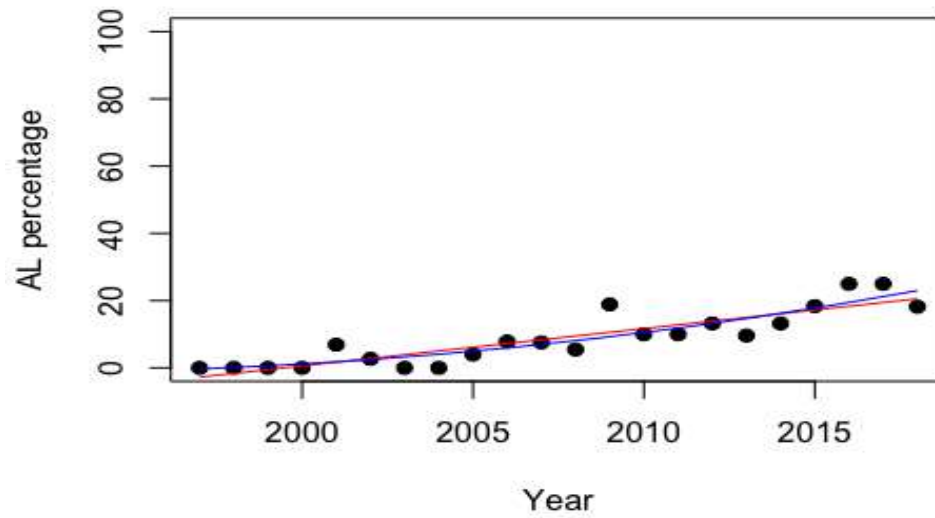


Figure 4. Curve estimation plot access-and-legitimacy.



Perspective	R <sup>2</sup> linear model	P-value linear model	R <sup>2</sup> quadratic model	P-value quadratic model	Prevalence (% overall number of reports)
<i>Discrimination- and-fairness</i>	.9012	<.001	.9788	<.001	34.54%
<i>Learning-and- integration</i>	.7686	<.001	.8816	<.001	23.09%
<i>Access-and- legitimacy</i>	.7844	<.001	.8087	<.001	10.89%
<b>None</b>	-	-	-	-	40.92%

Table 2. R<sup>2</sup> values per linear and quadratic (i.e., quadratic) models per perspective, and Percentage of diversity perspectives out of overall number of reports.

Even though R<sup>2</sup> is a popular metric used in statistical analysis, *per se*, it may not be sufficient to indicate which model best fits the data. This is so because its value is typically positively correlated with the number of parameters that a function has. As such, in the given context, it is likely that the value of R<sup>2</sup> increases as a function of the fact that, compared to the linear model, the quadratic one consists of an added parameter. Accordingly, when going from linear to quadratic, this begins to model the random noise into the data, which is known as *overfitting the model*, which may produce misleadingly high R<sup>2</sup> values and a reduced ability to make predictions (The Minitab Blog, 2013). Moreover, a similar, related concern would be the fact that the value of R<sup>2</sup> does not report on the prediction error, whilst its value can fall anywhere between 0 and 1 by merely changing the range of the independent variable (Ford, 2015). Consequently, a step further was taken in order to check which model best fits the data.

The second step to finding the best-fit model consisted of constructing a validation test for both models per each perspective and evaluating their predictive quality using the Mean Squared Error (MSE). The latter is a measure of the quality of an estimator and is the average squared difference (i.e., error) between the estimated (i.e., fitted) and the actual (i.e., observed) values. The closer to 0 a model's MSE values are, the higher its estimation quality. Subsequently, using Spyder, a Python-based IDE, the data set was divided into two parts: a *training set*, and a *test set*, respectively, for the purpose of predicting the values of the *test set* as a function of the *training*

*set* via. In other words, within the given data set, the *training set* was implemented in order to build a model, while the *test set* was created to validate the model built, the data points in the *training set* having been excluded from the *test* (validation) *set*. Specifically, the *training set* encapsulated all data points from 1997 to 2017, whereas the data points of year 2018 were used as a *validation set*. Subsequently, six distinct *training-set*-based models were created: one linear and one quadratic model for each of the three perspectives, and the MSE was calculated for each model, as indicated in the table below.

Perspective	Actual	Predicted (Quadratic)	Predicted (Linear)	MSE Quadratic	MSE Linear
<i>Discrimination-and-fairness</i>	<b>95.45</b>	82.71	67.83	10.87	44.14
<i>Learning-and-integration</i>	<b>36.36</b>	34.06	26.05	14.19	23.84
<i>Access-and-legitimacy</i>	<b>18.18</b>	25.47	21.04	10.99	13.94

Table 3. Values MSE validation set per linear and quadratic model per perspective.

The linear model for the *discrimination-and-fairness* perspective predicted that in 2018, 67.83% of the companies in the given sample would report the perspective in question. The quadratic model, however, predicted a percentage of 82.71, getting closer to the actual value of the *test set*, namely, 95.45%. Moreover, the quadratic model presented an MSE of 10.87 as opposed to the linear model (MSE = 44.14), which translates into the fact that the quadratic model represents a better fit. Similarly, in terms of the *learning-and-integration* perspective, the linear model predicted that 26.05% of the organizations would report this perspective in 2018, with an MSE of 23.84, whereas the quadratic model predicted a score of 34.06% (MSE = 14.19), getting much closer to the expected value of 36.36%. As for the *access-and-legitimacy* perspective, however, the linear model scored closer i.e., 21.04% to the actual value of 2018, namely 18.18%, as opposed to the quadratic model, which predicted a score of 25.47%. Yet, this is likely to be a matter of chance, a fact suggested by the fact that despite this occurrence, the quadratic model scores better in terms of MSE i.e., 10.99 than the linear model (MSE = 13.94). Consequently, overall it seems that the quadratic model is a better model-fit than its linear counterpart. Yet, this method, too, poses certain concerns, in that the MSE was calculated using a

single data point i.e., 2018, which leaves substantial margin of error and in doing so, diminishes the reliability of the results.

To mitigate the aforementioned potential margin for error and to therefore further test the validity of the quadratic model as a better predictor relative to the linear model, a Leave-one-out-cross-validation (LOOCV) was performed. In doing so, the abovementioned prediction process was reiterated for each year, generating 22 times MSE, wherein 22 represents the number of data points in the overall dataset (i.e., 1997-2018). Essentially, this means that the prediction model used for year 2018 was used for all the years in the sample – from 1997 to 2018 –, generating MSE values for all data points, for both linear and quadratic models for each of the three perspectives. The motivation behind using this method is that of assessing the predictive performance of a model and in doing so, to judge how they perform *outside* the sample, to a new dataset (i.e., the *test set*). Without cross validation techniques, the only information a researcher would have on how his/ her model performs towards his/ her in-sample data. Ideally, however, one would like to see how his/ her model performs with a new dataset in terms of prediction accuracy, and cross validation represents a way of simulating the aforementioned ‘*out-of-sample*’ environment for the model to be tested in. The advantages of the LOOCV consist of reducing bias as a function of using the entire dataset for training as well as eliminating the randomness factor in the *training* and *test* data, since the iterations run on all data points. Subsequent to having run the LOOCV via Spyder, the fit of the two models was assessed using the MSE. For the *discrimination-and—fairness* perspective, the cross validation-yielded MSE value of the *training set* for the linear model was 77.24, whilst that yielded by the quadratic model was significantly smaller, namely 21.38, indicating that the latter better fits the data than the former. Likewise, the quadratic model (MSE = 19.7) for the *learning-and-integration* perspective appears to better fit the data, relative to the linear model (MSE = 28.31). In what concerns the *access-and-legitimacy* perspective, however, the linear model seems to be a better predictor and fit for the data (MSE = 16.55) relative to the quadratic model (MSE = 16.83), although only marginally ( $\text{MSE}_{\text{Quadratic}} - \text{MSE}_{\text{Linear}} = 0.28$ ), as shown in the table below.

Perspective	MSE Linear	MSE Quadratic
<i>Discrimination-and-fairness</i>	77.24	21.38
<i>Learning-and-integration</i>	28.31	19.70
<i>Access-and-legitimacy</i>	16.55	16.83

Table 4. Cross-validation MSE values linear and quadratic (i.e., quadratic) models per perspective.

Yet, even though according to the above-mentioned statistical results the quadratic model seems to be a better fit for the *discrimination-and-fairness* and *learning-and-integration* perspectives, it was considered sensible to investigate the linear models of these perspectives more into depth, for several reasons. That is, by examining Figure 1. (Percentage of diversity perspectives 1997-2018), a fluctuating pattern within the *learning-and-integration* and the *access-and-legitimacy* perspectives remained noticeable. This pattern seems to have followed a declining pattern between 2015 and 2018, which in turn, made the fit of the quadratic models questionable. Thus, this suggested that a linear model may have more reasonably fit the data not only for the *access-and-legitimacy* perspective – as already indicated also by its MSE LOOCV score – but also for the *learning-and-integration* perspective. As such, the data were further analyzed using a linear model, not merely because of the seemingly descending trends, but notably because it allowed for a more insightful comparison across perspectives as a function of assessing the average annual rate (i.e., slope) by which they increase (i.e., percentages per year). Similarly, this was deemed suitable because it seemed rather unlikely that organizations would begin reporting diversity perspectives at such a fast pace to reach the maximum (i.e., 100%) across a relatively small period of time when following the quadratic growth trend. Accordingly, the following linear models for all three perspectives across time were computed using RStudio, as shown in the graphs and tables below. Summarized within the figures (5.-7.) and tables (5.-8.) below, the results indicated the *discrimination-and-fairness* paradigm as the fastest growing out of all three, increasing by roughly 4% each year. The latter was followed by the *learning-and-integration* perspective, growing at an annual rate of about 1.5%, and the *access-and-legitimacy* approach, growing at the slowest yearly rate out of all three perspectives, 1.1% respectively. All three slopes, nevertheless, exhibited very high statistical significance of  $p < .001$ . In doing so, the linear model seemed to be more sensible to ‘real-world’ circumstances in the sense that would be

more likely for organizations to increase their diversity reporting gradually, given specific structural and time-related constraints. Yet, no definite conclusions could be drawn concerning the goodness of fit of the models, other than the fact that as expected, there have been increases in diversity reporting of all three perspectives, with *discrimination-and-fairness* being the most prevalent, as well as the fastest growing approach of all. Similarly, whereas, judging by Figure 1. (Percentage of diversity perspectives 1997-2018), *discrimination-and-fairness* seems to be on the rise in the near future as well, the same could not be asserted about the remaining two perspectives, given their seemingly downward tendency between 2015 and 2018.

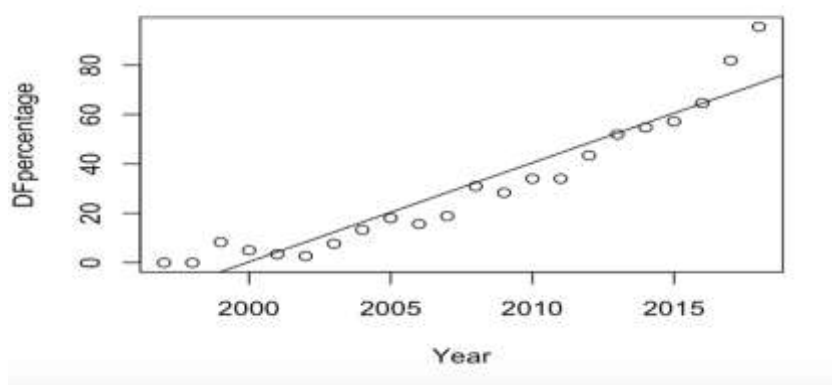


Figure 5. Overall percentage discrimination-and-fairness 1997-2018.

Coefficients:				
	Estimate	Std. Error	<i>t value</i>	<i>p</i>
(Intercept)	-8019.1768	595.9079	-13.46	< .001
x	4.0098	0.2968	13.51	<.001
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

Table 5. Discrimination-and-fairness - overall - Summary linear model.

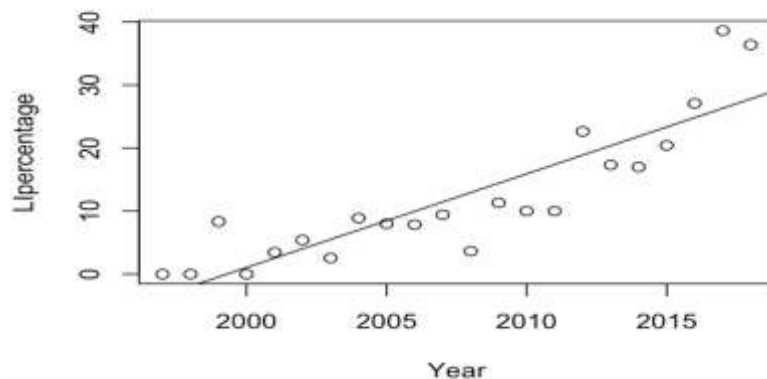


Figure 6. Linear model. Overall percentage learning-and-integration 1997-2018.

Coefficients:				
	Estimate	Std. Error	<i>t value</i>	<i>p</i>
(Intercept)	-2971.9197	366.1363	-8.117	<.001
x	1.4865	0.1824	8.150	<.001
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

Table 6. Linear model. Learning-and-integration - overall - Summary linear model.

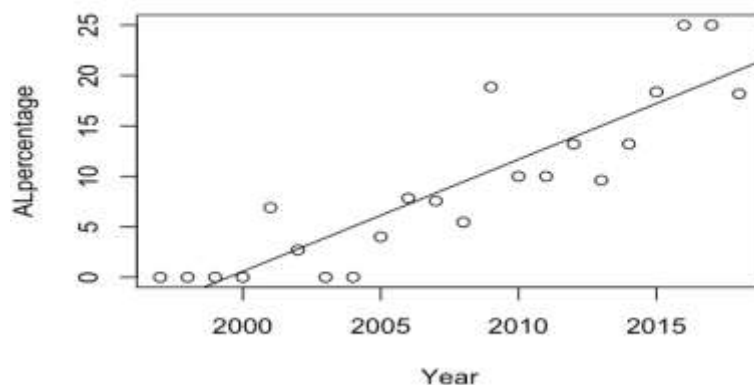


Figure 7. Linear model. Overall percentage discrimination-and-fairness 1997-2018.

Coefficients:				
	Estimate	Std. Error	<i>t value</i>	<i>p</i>
(Intercept)	-2218.7979	261.1500	-8.496	<.001
x	1.1097	0.1301	8.530	<.001
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				

Table 7. Access-and-legitimacy - overall - Summary linear model.

<b>Perspective/ sector</b>	<b>Intercept</b>	<b>Slope</b>	<b><i>P</i>-value Intercept</b>	<b><i>P</i>-value Slope</b>
<i>Discrimination-and-fairness Overall</i>	-8019.1768	4.0098	<.001	<.001
<i>Learning-and-Integration Overall</i>	-2971.9197	1.4865	<.001	<.001
<i>Access-and-legitimacy Overall</i>	-2218.7979	1.1097	<.001	<.001

Table 8. Summary linear models; perspectives overall.

To answer the study's second question, the means to assess the prevalence of the *learning-and-integration* and *access-and-legitimacy* perspectives across sectors was that of comparing the presence of each perspective per sector across time. In order to allow for cross-sector comparison, the latter was expressed as the percentages of companies reporting a particular perspective per sector, across time. In other words, the prevalence of a perspective within a sector was calculated by *summing the number of occurrences (NB: not counts i.e., presence = "1", non-presence = "0") of a perspective and dividing it by the number of annual reports* within a sector. Subsequently, the following percentages were derived, as shown below in Table 9.

<b>Perspective</b>	<b>Industry</b>	<b>Telecommunications</b>	<b>Retail</b>	<b>Financial</b>
<i>Discrimination-and-fairness</i>	39.41%	31.88%	38.88%	49.01%
<i>Learning-and-integration</i>	17.51%	11.59%	14.58%	13.72%
<i>Access-and-legitimacy</i>	14.59%	13.04%	9.72%	13.07%
<i>None</i>	28.46%	56.52%	36.80%	24.18%

Table 9. Percent of perspective reported per sector.

The results summarized above were fairly mixed, with trends rather unsupportive of the study's hypotheses, except for the Industrial sector, in which, as expected, leaving aside the *discrimination-and-fairness* perspective, the *learning-and-integration* perspective was more prevalent relative to the Financial and Retail sectors. Contrary to the study's anticipations,

nevertheless, this was not the case for the Telecommunications sector. Conversely, whereas the *access-and-legitimacy* perspective was anticipated to have been more prevalent within the Retail and the Financial sectors, this was only marginally the case when comparing the Financial and the Telecommunications sectors. However, *access-and-legitimacy* was more prevalent within the Industrial sector, and, contrary to the study's expectations, was altogether the least prevalent within the Retail sector. Subsequently, linear models per sector per perspective were derived in order to assess and compare the average annual growth rates (i.e., slope) of each perspective within the given sectors, as depicted in the below in Table 10. (wherein '*DF*' stands for *discrimination-and-fairness*, '*LI*' for *learning-and-integration*, and '*AL*' for *access-and-legitimacy*, the corresponding graphs of which were annexed to the study's Appendix B.

Coefficients:		Estimate	Std. Error	T value	p
Perspective/ Sector					
<b><i>DF/ Financial</i></b>	(Intercept)	-9339.5615	-9339.5615	-14.44	<.001
	x (slope)	4.6714	0.3221	14.50	<.001
<b><i>DF/ Retail</i></b>	(Intercept)	-6793.0034	1022.4864	-6.644	<.001
	x (slope)	3.4000	0.5093	6.676	<.001
<b><i>DF/ Telecom</i></b>	(Intercept)	-7057.3546	1516.6342	-4.653	<.001
	x (slope)	3.5291	0.7555	4.671	<.001
<b><i>DF/ Industry</i></b>	(Intercept)	-7673.0637	1047.5914	-7.324	<.001
	x (slope)	3.8396	0.5218	7.358	<.001
<b><i>LI/ Financial</i></b>	(Intercept)	-2508.3682	825.8945	-3.037	.00651
	x (slope)	1.2549	0.4114	3.050	.00632
<b><i>LI/ Retail</i></b>	(Intercept)	-2196.3688	-2196.3688	-2.953	.00787
	x (slope)	1.1000	0.3706	2.968	.00760
<b><i>LI/ Telecom</i></b>	(Intercept)	-2767.3254	-2767.3254	-3.962	<.001
	x (slope)	1.3834	0.3479	3.976	<.001
<b><i>LI/ Industry</i></b>	(Intercept)	-3765.8046	1364.8613	-2.759	.0121
	x (slope)	1.8845	0.6799	2.772	.0118
<b><i>AL/ Financial</i></b>	(Intercept)	-2790.8004	695.3369	-4.014	<.001
	x (slope)	1.3955	0.3464	4.029	<.001
<b><i>AL/ Retail</i></b>	(Intercept)	-1392.8524	614.2277	-2.268	.0346
	x (slope)	0.6972	0.3060	2.279	.0338
<b><i>AL/ Telecom</i></b>	(Intercept)	-3408.150	1319.011	-2.584	.0177
	x (slope)	1.703	0.657	2.592	.0174
<b><i>AL/ Industry</i></b>	(Intercept)	-2003.3884	859.6266	-2.331	.0304
	x (slope)	1.0041	0.4282	2.345	.0295
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

Table 10. Summary Linear Model. Perspective/ Sector.



The results summarized above suggested that the Telecommunications and Industry sectors showed faster growing annual rates of the *learning-and-integration* perspective relative to the Retail and Financial sectors, which represented a certain degree of preliminary evidence supportive of the study's hypotheses. However, whereas *access-and-legitimacy* was expected to have had a more rapid annual growth rate in the Financial and Retail sectors relative to the Industry and Telecommunications sectors, this was not entirely the case. That is, it was only the Financial sector the annual growth rate in *access-and—legitimacy* reporting that outpaced that of the Industrial sector, whereas, contrary to the expectations, the growth rates of *access-and-legitimacy* within the Telecommunications and Industry sectors outpaced the former's growth rate within the Retail sector. This process, however, did not assess whether the sector a company operates in *de facto* influences the way the latter reports on diversity. In fact, answering the study's second research questions, however, was rather problematic, given the very restricted nature of the sample. Specifically, the data points per each sector were deemed as insufficient to allow for a reliable and valid hypothesis testing, a limitation that is addressed accordingly within a dedicated section of this paper.

## Discussion

This study's main objective was that of exploring trends in organizational workforce cultural diversity reporting within different Dutch organizations, across a period of roughly two decades. By deploying automated quantitative content analysis as a research methodology and subsequently providing a longitudinal analysis of organizational diversity reporting trends, the study aimed to bridge existing theoretical and methodological research gaps. In doing so, the results concerning the study's first research question were supporting of the hypothesis derived from Thomas and Ely's (2001) theory. Specifically, the results indicated an overall increase in organizational workforce cultural diversity reporting throughout time, with *discrimination-and-fairness* being the most prevalent and the fastest growing perspective reported across time and organizations. This was likely the case because in nowadays' increasingly globalized world organizations are to a certain extent constrained to comply with nationally- and internationally-established standards of non-discrimination and fairness (Ponten, 2015). As such, in this sense, reporting *discrimination-and-fairness* would help signal corporate social responsibility (Van Kraaij, 2016). The growth in this perspective was nevertheless, to a certain degree, echoed by

similar, although slower-paced growth trends in the *learning-and-integration* and *access-and-legitimacy* perspectives. Together, these aspects imply the fact that these diversity perspectives are not mutually exclusive, and that, while making their compliance with specific workforce-related standards clear in their reporting, organizations have started to increasingly acknowledge, leverage, and report the value of workforce cultural diversity in a globalized business environment that demands quick learning and adaptation (Ponten, 2015, p. 55; Ferdman, 2013; Deane, 2013). Similarly, what these trends in diversity reporting suggest is consistent with the idea that corporations seem to acknowledge the need to apply social justice in business, while striving to communicate and to appeal to the public as an ‘employer of choice’ (Jonsen et al., 2019), who is ‘doing the right thing’ (Van Kraaij, 2016). In doing so, this indicates the likelihood of a general organizational awareness of the fact that insensitivity towards communicating about the issue of diversity may not only decrease organizational performance by lowering employee retention rates and missing out on potential employees, but also because it is likely to build a negative image for the public (Van Kraaij, 2016; Swan, 2010).

The practical implications of answering the study’s first research question stem from several reasons. First, since diversity perspectives have been shown to act as mediators between workforce diversity management and organizational performance (Jansen et al., 2016; Bader et al., 2018), by having a longitudinal overview upon their diversity reporting practices, corporations are given the possibility of assessing and potentially adjusting their annual performance in relation with their attitudes towards workforce diversity. Similarly, from a social perspective, this may allow governmental organizations to keep in check organizational workforce practices and potentially hold corporations accountable by issuing specific policies and regulations in order to ensure employee wellbeing. The latter two, of course, are likely to be the case provided that what organizations report on workforce cultural diversity is in line with their *de facto* workforce diversity practices. Alternatively, should there be a “value gap” (Cording et al., 2014), or a difference between what companies claim and what they do in practice, the study’s practical implications would consist of allowing organizations to assess and potentially improve their reputation and image as a function of their reported attitudes towards workforce cultural diversity.

As a secondary objective, this study attempted to search for factors that are likely to shape organizational diversity reporting across organizations. In doing so, the study aimed to bridge the theoretical gap in the literature by bringing forward and attempting to test several hypotheses derived from the field of CSR, positing that diversity reporting is likely to be influenced by the sector an organization operates in. However, despite the clear rising trends in workforce diversity reporting, which are likely the effect of image and/ or brand building (i.e., organizations reporting in line with what they believe their stakeholders would like to hear), the results were rather mixed, with trends predominantly unsupportive of the study's hypotheses. This was so with the exception of the Industrial sector, in which, as expected (NB: leaving aside the *discrimination-and-fairness* perspective), the *learning-and-integration* perspective was more prevalent relative to the Financial and Retail sectors. This, however, contrary to the study's anticipations, was not the case for the Telecommunications sector. On the flipside, whereas the *access-and-legitimacy* perspective was expected to be more prevalent within the Retail and the Financial sectors, this was only marginally the case when comparing the Financial and the Telecommunications sectors. Nevertheless, this perspective was more prevalent within the Industrial sector, and was altogether the least prevalent within the Retail sector, contrary to the study's expectations. Likewise, as described within the study's previous section, the results of having modelled each perspective per sector linearly were mixed as well, with *learning-and-integration* growing at a faster annual rate within the Telecommunications and Industry sectors, as expected, but with *access-and-legitimacy* growing at a slower annual rate within the Retail sector relative to both Telecommunications and Industry sectors. Yet, the methodological processes employed did not assess whether the sector a company operates in *de facto* influences the way the latter reports on diversity and therefore, no definite conclusions could be drawn.

### Limitations & Future Directions

One potential way to have investigated the sector's potential as a factor influencing trends in diversity reporting would have been that of using ANOVA to test whether on average, throughout time (i.e., per year), companies operating in a specific sector are more likely to report a certain perspective relative to organizations operating in a different sector. However, in doing so, time period covered by annual reports should have entirely overlapped across companies. Similarly, the number of companies assessed should have been the same across all sectors.

Nevertheless, this was not the case with this study, given specific empirical, data-driven limitations such as the existence of a very small amount of organizations per sector chosen, as well as the fact that not all the organizations operating within a specific sector provided a complete amount of (English-written) annual reports. As such, while the overlap could have potentially been simulated by looking exclusively at one period of time within the dataset wherein the years across organizations overlapped, having excluded specific data points would have entailed discarding adjacent, potentially relevant observations as well. This, nevertheless, was highly undesirable and perhaps even unfeasible, given the small size of the sample. In fact, having performed this process with the given sample of companies operating in the four given sectors is likely to have led to significantly skewing the spread of the reported perspectives, which would have in turn meaningfully increased the margin of error, the study's internal validity, and potentially, consequently rendered the study as meaningless. Therefore, in order to answer this research question, future research would significantly benefit from increasing the sector-based sample size, as well as by including several control variables such as, for example, organizational size, number of employees, as well as the diversity amongst board members. However, since the number of companies operating within a sector is a given, enlarging the sample size could be realized by including organizations that are international, and not exclusively Dutch, while controlling for *country-of-origin* as a potential confounder. Relatedly, this study raises further questions in terms of what factors are likely to shape the trends in organizational diversity reporting across time. It would be interesting, for instance, to correlate the diversity reporting trends with the annual economic performance of a specific country. Likewise, it may be worth investigating whether the country an organization bases its headquarters in influences the way the organization in question reports on workforce cultural diversity. Alternatively, another aspect worth researching would be the relationship between diversity reporting trends and governmental workforce diversity-targeted policies, since diversity reporting may also represent a way in which organizations may be signaling compliance with specific national and/ or international workforce management norms of conduct.

## Conclusion

To conclude, despite the above-explained data-driven limitations, this study has provided an answer to the research gap concerning a longitudinal overview of workforce cultural diversity

reporting trends across Dutch organizations. Moreover, in doing so, this paper has put forward significant resources to fill the adjacent methodological gap by providing a sufficiently reliable software script that can be easily applied to different samples of annual reports. Even though indeed, the script may contain specific library (i.e., Regex)-driven limitations such as a particular sensitivity to some within PDF table formatting, the program comes with the advantage of offering continuous adjustment and optimization possibilities. As such, the latter [the script] can be used as a means of assessing organizations' approaches towards workforce cultural diversity within broader ranges of organizations and. In doing so, under certain, previously discussed circumstances, it may allow corporations adjust their workforce diversity policies in order to boost organizational performance as well as to improve their image as socially responsible entities. Similarly, it may aid governmental organizations towards more informed workforce management-related policy making. Additionally, this paper has raised new questions worth exploring, advanced potential caveats and provided ways in which further research could move forward in terms of examining the factors that are likely to shape trends in organizational diversity reporting.

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## Appendix A

```

Run MATRIX procedure:

Krippendorff's Alpha Reliability Estimate

Ratio      Alpha      LL95%CI      UL95%CI      Units      Observrs      Pairs
-----
Ratio      .9094      .8091      .9869      72.0000      2.0000      72.0000

Probability (q) of failure to achieve an alpha of at least alphamin:
alphamin      q
.9000      .3560
.8000      .0131
.7000      .0002
.6700      .0001
.6000      .0000
.5000      .0000

Number of bootstrap samples:
10000

Judges used in these computations:
Bastiaan Nastasia

Examine output for SPSS errors and do not interpret if any are found

----- END MATRIX -----

```

Figure 8. Cross-researcher intercoder reliability score.

### Matrix

```

Run MATRIX procedure:

Krippendorff's Alpha Reliability Estimate

Ratio      Alpha      LL95%CI      UL95%CI      Units      Observrs      Pairs
-----
Ratio      .9099      .8602      .9527      72.0000      3.0000      216.0000

Probability (q) of failure to achieve an alpha of at least alphamin:
alphamin      q
.9000      .3311
.8000      .0001
.7000      .0000
.6700      .0000
.6000      .0000
.5000      .0000

Number of bootstrap samples:
10000

Judges used in these computations:
Bastiaan Nastasia Python

Examine output for SPSS errors and do not interpret if any are found

----- END MATRIX -----

```

Figure 9. Intercoder reliability researcher 1 – researcher 2 – program.

---

Run MATRIX procedure:

Krippendorff's Alpha Reliability Estimate

Ratio	Alpha	LL95%CI	UL95%CI	Units	Observrs	Pairs
	.9332	.8549	.9886	72.0000	2.0000	72.0000

Probability (q) of failure to achieve an alpha of at least alphamin:

alphamin	q
.9000	.1574
.8000	.0012
.7000	.0000
.6700	.0000
.6000	.0000
.5000	.0000

Number of bootstrap samples:  
10000

Judges used in these computations:  
Nastasia Python

Examine output for SPSS errors and do not interpret if any are found

----- END MATRIX -----

---

Figure 10. Intercoder reliability researcher 1 - program

### Matrix

Run MATRIX procedure:

Krippendorff's Alpha Reliability Estimate

Ratio	Alpha	LL95%CI	UL95%CI	Units	Observrs	Pairs
	.8872	.7882	.9625	72.0000	2.0000	72.0000

Probability (q) of failure to achieve an alpha of at least alphamin:

alphamin	q
.9000	.5885
.8000	.0390
.7000	.0005
.6700	.0000
.6000	.0000
.5000	.0000

Number of bootstrap samples:  
10000

Judges used in these computations:  
Bastiaan Python

Examine output for SPSS errors and do not interpret if any are found

----- END MATRIX -----

Figure 11. Intercoder reliability researcher 2 - program.

## Appendix B

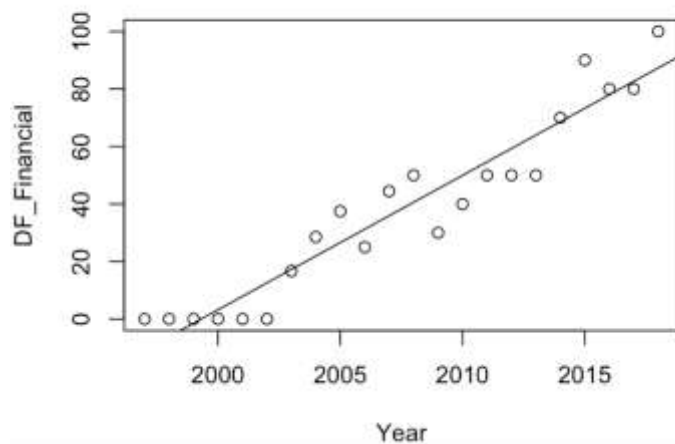


Figure 12. Discrimination-and-fairness/ Financial. Linear model.

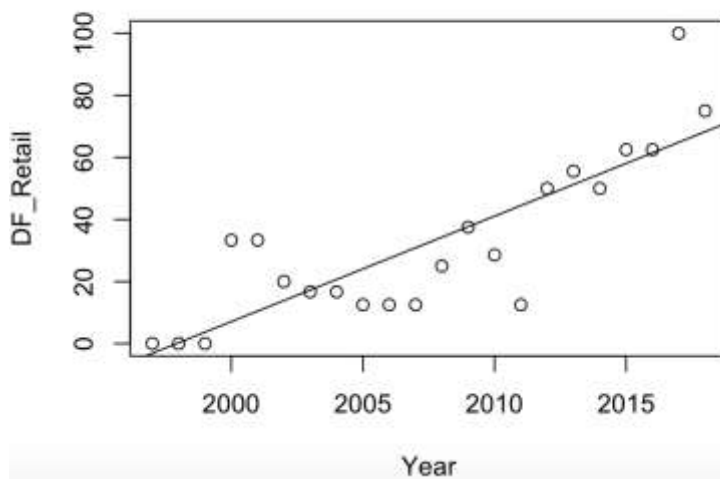


Figure 13. Discrimination-and-fairness/ Retail. Linear model.

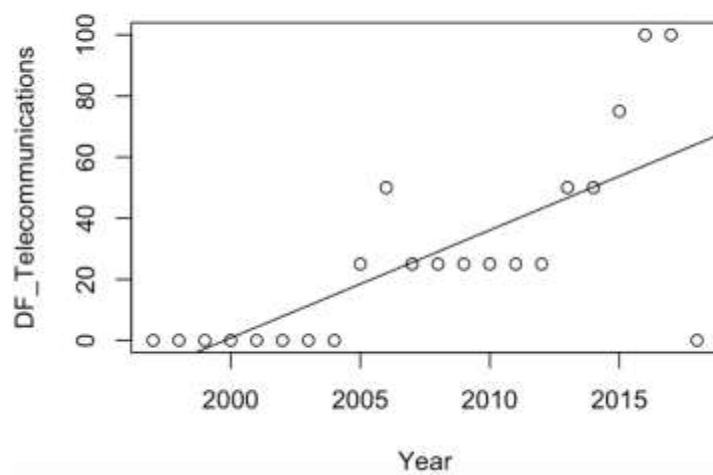


Figure 14. Discrimination-and-fairness/ Telecommunications. Linear model.

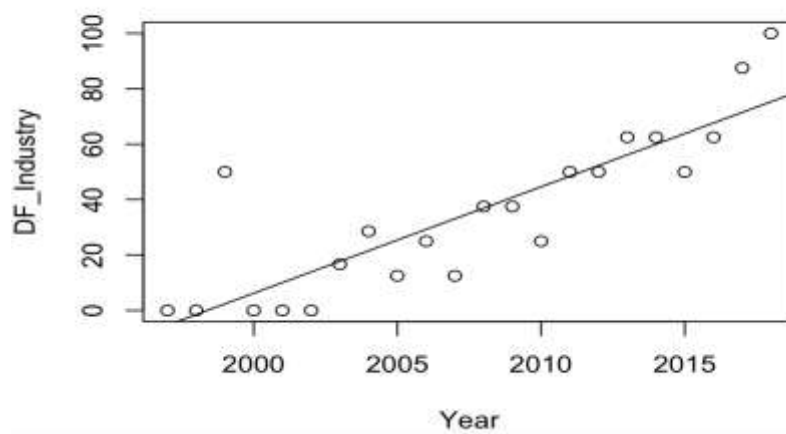
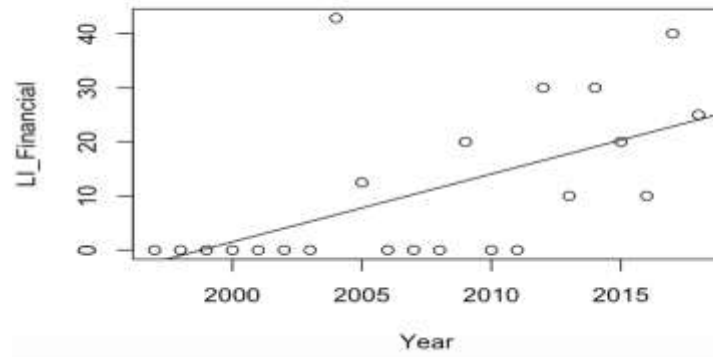


Figure 15. Discrimination-and-fairness/ Industry. Linear model.



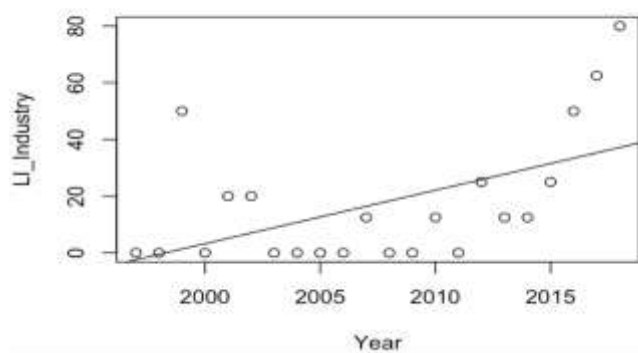


Figure 19. Learning-and-integration/ Industry. Linear model.

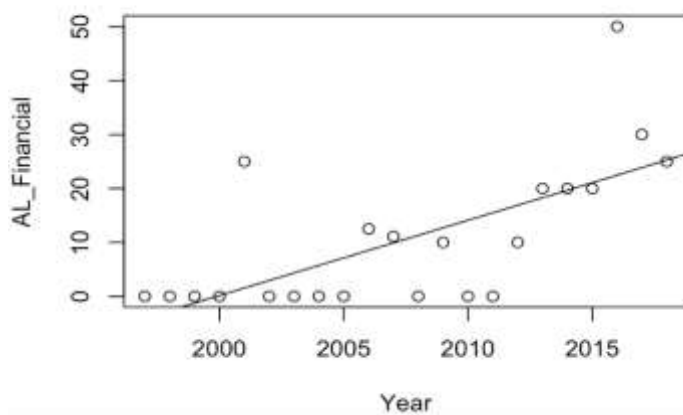


Figure 20. Access-and-legitimacy/ Financial. Linear model.

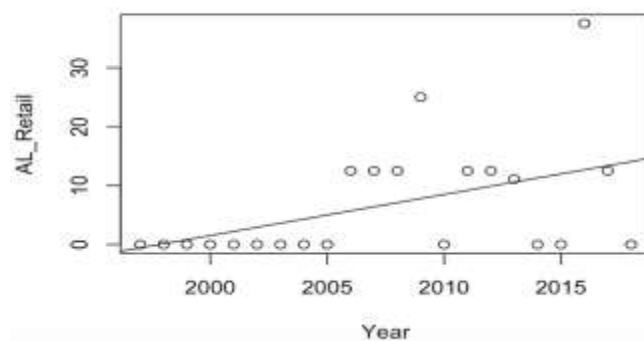


Figure 21. Access-and-legitimacy/ Retail. Linear model.

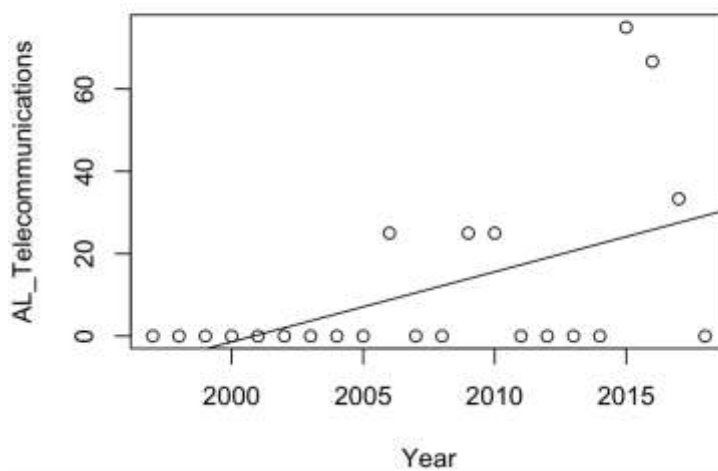


Figure 22. Access-and-legitimacy/ Telecommunications. Linear model.



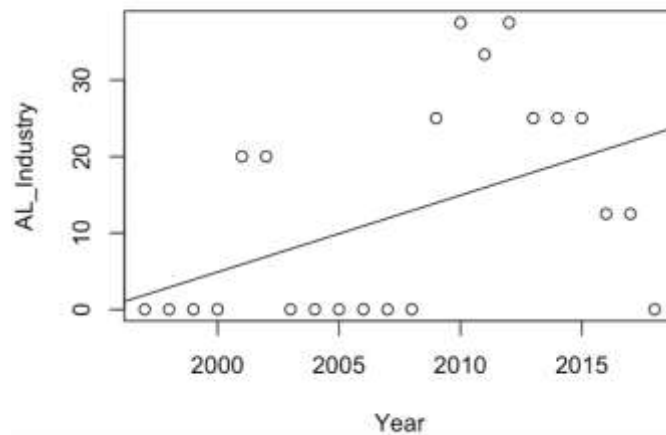


Figure 23. Access-and-legitimacy/ Industry. Linear model.

## Appendix C

Python diversity frameworks – scripts.

Script – Neutral *trigger words* list

```
{
  "trigger": [
    "(cultural) (\\s*\\w+\\s*\\W\\s*){0,5}(diversity|difference(s){0,1})",
    "(rac(e){0,1}(ial){0,1})",
    "(ethnic(ity){0,1}(ities){0,1})",
    "(ethnic|racial)(diversity)",
    "(nationalit(y){0,1}(ies){0,1})",
    "((workforce)(diversity|composition))",
    "(workforce (\\s*\\w+\\s*\\W\\s*){0,5}diversity)",
    "(diversity (\\s*\\w+\\s*\\W\\s*){0,5}workforce)",
    "(diversity of) (\\s*\\w+\\s*\\W\\s*){0,5}(talent
pool|talent|workforce|nationalit(y){0,1}(ies){0,1}|ethnicit(y){0,1}(ies){0,1}|culture(s){0,1})",
    "(diversity of) (\\s*\\w+\\s*\\W\\s*){0,5}(background(s){0,1}|ethnic
background(s){0,1}|employee(s){0,1}|group(s){0,1}|cultural background(s){0,1}|composition)",
    "(im){0,1}|migrant(s){0,1}|(worker){0,1}(s){0,1}",
    "(multicultural(.){0,1}( ){0,1}|diverse(.){0,1}( ){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(talent
pool|talent|workforce|nationalit(y){0,1}(ies){0,1})",
    "(varied(.){0,1}( ){0,1}|various(.){0,1}( ){0,1}|different(.){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(talent
pool|talent|workforce|nationalit(y){0,1}(ies){0,1})",
    "(multicultural(.){0,1}( ){0,1}|diverse(.){0,1}( ){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(ethnicit(y){0,1}(ies){0,1})",
    "(varied(.){0,1}( ){0,1}|various(.){0,1}( ){0,1}|different(.){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(ethnicit(y){0,1}(ies){0,1})",
    "(multicultural(.){0,1}( ){0,1}|diverse(.){0,1}( ){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(culture(s){0,1}|background(s){0,1}|ethnic
background(s){0,1}|employee(s){0,1})",
    "(multicultural(.){0,1}( ){0,1}|diverse(.){0,1}( ){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(group(s){0,1}|cultural
background(s){0,1}|composition)",
    "(varied(.){0,1}( ){0,1}|various(.){0,1}( ){0,1}|different(.){0,1})
(\\s*\\w+\\s*\\W\\s*){0,5}(culture(s){0,1}|background(s){0,1}|ethnic background(s){0,1}|employee(s){0,1})",
    "(varied(.){0,1}( ){0,1}|various(.){0,1}( ){0,1}|different(.){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(group(s){0,1}|cultural
```

```

background(s){0,1}|composition)",
  "(all forms of|all shapes of)(diversity)",
  "(diversity in (all){0,1}(its){0,1})(forms|shapes|broadest sense)",
  "(diverse composition (\s*\w+\s*\W\s*){0,5}nationality)",
  "(diverse composition (\s*\w+\s*\W\s*){0,5}ethnicity)",
  "(diverse composition (\s*\w+\s*\W\s*){0,5}culture)",
  "(diverse population)",
  "(diversity and inclusion|diversity & inclusion|diversity&inclusion)",
  "(diversity (\s*\w+\s*\W\s*){0,5}composition)",
  "(current (\s*\w+\s*\W\s*){0,5}composition)",
  "(diverse talent)",
  "(diverse workplace|diverse workforce)",
  "(diverse composition)",
  "(people (\s*\w+\s*\W\s*){0,5}diverse)",
  "(our people)",
  "(nationality, race)",
  "(background and nationality)",
  "(diversity(.){0,1} in all (its){0,1} forms)",
  "(diversity(.){0,1}(.){0,1})",
  "(diverse population of associates|diverse backgrounds|businesses with diverse and inclusive cultures)",
  "(diverse (\s*\w+\s*\W\s*){0,5}environment)",
  "differences in (\s*\w+\s*\W\s*){0,3}(background|nationality|ethnicity|culture)",
  "(the composition of our workforce is such that|non-western backgrounds|culture match)",
  "(diversity & non-discrimination)",
  "(global teamwork|diverse population of associates)",
  "\\bdiversity"
]
}

```

### Script – Discrimination-and-Fairness

```

{
  "matchlist": [
    "(diversity|inclusion) (\s*\w+\s*\W\s*){0,5}(manifesto|law(s){0,1}|initiative(s){0,1}|norm|guiding principles|conduct|code)",
    "(diversity|inclusion)(\s*\w+\s*\W\s*){0,5}(guideline(s){0,1}|program(s){0,1}|benchmark(s){0,1}|criteria|criterion)",
    "(diversity|inclusion)(\s*\w+\s*\W\s*){0,5}(program|standard(s){0,1}|legislation|regulation|policy|policies|plan(s){0,1})",
    "(diverse composition|fair balance|composition is appropriate|feel respected|feel valued)",
    "(balanced composition|adequate composition|appropriate composition|attractive employer|no discrimination|zero discrimination)",
    "(we do not discriminate|focus on diversity, non-discrimination|non discrimination|nondiscrimination|equal opportunity)",
    "(equal opportunities|employer of choice|diversity target|diversity targets|exclude no one|exclude nobody)",
    "(regardless of|independent of|irrespective of) (\s*\w+\s*\W\s*){0,5}(culture|nationality|ethnicity|color|colour|background|race)",
    "(diversity goal|inclusion initiative|commitment to diversity and inclusion|committed do diversity|inclusive recruitment)",
  ]
}

```

"(in all their diversity|all forms of diversity|all shapes of diversity|diversity in all its shapes|in all respects)",

"(diversity in all its forms|diversity in its broadest sense|diverse talent acquisition|diverse talent retention)",

"(diverse talent recruitment|diverse workforce acquisition|diverse workforce retention|diverse workforce recruitment)",

"(diverse labor acquisition|diverse labor retention|diverse labor recruitment|diverse labour acquisition)",

"(diverse labour recruitment|diverse labour retention|diversity policy|reach their career potential)",

"(inspir(e){0,1}(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusion|inclusiveness|fairness|equality|opportunity|inclusive environment|inclusive culture)",

"(inspir(e){0,1}(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(diversity|cultural diversity|diverse workforce|inclusive organization)",

"(inspir(e){0,1}(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusive organisation|inclusive workforce)",

"(stimulat(e){0,1}(ing){0,1}|enhanc(e){0,1}(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusion|inclusiveness|fairness|equality|inclusive culture)",

"(stimulat(e){0,1}(ing){0,1}|enhanc(e){0,1}(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(diversity|cultural diversity|diverse workforce)",

"(stimulat(e){0,1}(ing){0,1}|enhanc(e){0,1}(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusive organisation|inclusive workforce)",

"(stimulat(e){0,1}(ing){0,1}|enhanc(e){0,1}(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(opportunity|equal opportunities|inclusive environment|inclusive organization)",

"(promot(e){0,1}(ing){0,1}|support(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusion|inclusiveness|fairness|equality|inclusive culture)",

"(promot(e){0,1}(ing){0,1}|support(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,3}(diversity|cultural diversity|diverse workforce)",

"(promot(e){0,1}(ing){0,1}|support(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusive organisation|inclusive workforce)",

"(promot(e){0,1}(ing){0,1}|support(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(opportunity|opportunities|inclusive environment|inclusive organization)",

"(attract(ing){0,1}|retain(ing){0,1}|broaden(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusion|inclusiveness|fairness|equality|inclusive culture)",

"(attract(ing){0,1}|retain(ing){0,1}|broaden(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(diversity|cultural diversity|diverse workforce)",

"(attract(ing){0,1}|retain(ing){0,1}|broaden(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusive organisation|inclusive workforce)",

"(attract(ing){0,1}|retain(ing){0,1}|broaden(ing){0,1}) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(opportunity|opportunities|inclusive environment|inclusive organization)",

"(embrac(e){0,1}(ing){0,1}(es){0,1}diversity) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusion|inclusiveness|fairness|equality|inclusive culture)",

"(embrac(e){0,1}(ing){0,1}(es){0,1}diversity) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(diversity|cultural diversity|diverse workforce)",

"(embrac(e){0,1}(ing){0,1}(es){0,1}diversity) (\\s\*\\w+\\s\*\\W\\s\*){0,5}(inclusive organisation|inclusive workforce)",

"(embrace){0,1}(ing){0,1}(es){0,1}diversity) (\s\*\w+\s\*\W\s\*){0,5}(opportunity|opportunities|inclusive environment|inclusive organization)",

"(create){0,1}(ing){0,1}|improve){0,1}(ing){0,1}) (\s\*\w+\s\*\W\s\*){0,5}(inclusion|inclusiveness|fairness|equality|inclusive culture)",

"(create){0,1}(ing){0,1}|improve){0,1}(ing){0,1}) (\s\*\w+\s\*\W\s\*){0,5}(diversity|cultural diversity|diverse workforce)",

"(create){0,1}(ing){0,1}|improve){0,1}(ing){0,1}) (\s\*\w+\s\*\W\s\*){0,5}(inclusive organisation|inclusive workforce)",

"(create){0,1}(ing){0,1}|improve){0,1}(ing){0,1}) (\s\*\w+\s\*\W\s\*){0,5}(opportunity|inclusive environment|inclusive organization)",

"(foster(ing){0,1}(s){0,1}|increase){0,1}(ing){0,1}) (\s\*\w+\s\*\W\s\*){0,5}(inclusion|inclusiveness|fairness|equality|inclusive culture)",

"(foster(ing){0,1}(s){0,1}|increase){0,1}(ing){0,1}) (\s\*\w+\s\*\W\s\*){0,5}(cultural diversity|diverse workforce)",

"(foster(ing){0,1}(s){0,1}|increase){0,1}(ing){0,1}) (\s\*\w+\s\*\W\s\*){0,5}(inclusive organisation|inclusive workforce)",

"(foster(ing){0,1}(s){0,1}|increase){0,1}(ing){0,1}) (\s\*\w+\s\*\W\s\*){0,5}(opportunity|opportunities|inclusive environment|inclusive organization)",

"(meet the diversity criteria|diversity standards and requirements|important consideration in the selection process)",

"(diversity & inclusion approach|preventing discrimination|diversity & inclusion programme)",

"(diversity (\s\*\w+\s\*\W\s\*){0,5}taken into consideration)",

"(empowers colleagues from all backgrounds|decent employer|great importance|acknowledgement of cultural diversity)",

"(achieve as much diversity as possible|non-Western backgrounds)",

"(key element (\s\*\w+\s\*\W\s\*){0,7}strategy)",

"(european diversity charter|ensuring diversity of|reflecting diversity in its membership)",

"(consistent with (\s\*\w+\s\*\W\s\*){0,5}international principles)",

"(consistent with the main international principles)",

"(commitment to (\s\*\w+\s\*\W\s\*){0,5}diversity)",

"(takes into account (\s\*\w+\s\*\W\s\*){0,5}diversity)",

"(based on merit(s){0,1}|code of conduct for employees|supports a diverse population of associates)",

"(reflecting a strong commitment to diversity and inclusion|strengthening an inclusive culture)",

"(other diversity related aspects are also taken into account|strengthening cultural diversity)",

"(aims at having members with a European and a non-European background|cultural diversity plan)",

"(stimulates the creation of jobs for people with limited opportunities in the labour market)",

"(strong consideration of the diversity|focus on increasing employee diversity|seeking out best practices)",

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"(policy on diversity in the composition|statutory targets|intrinsic reasons work better here than quotas)",
"(diversity is also included in) (\\s*\\w+\\s*\\W\\s*){0,5}(code of conduct)",
"(create a diverse and inclusive environment that encourages everyone to be themselves)",
"(attaches great importance to diversity in its composition)",
"(reflecting diversity in its membership|supports a diverse population of associates)"

]
}

```

### Script – Access-and-legitimacy

```

{
  "matchlist": [
    "(in line with our environment|serves its clients|better understanding of the needs of our varied customers|reflect their diversity)",
    "(mirror(s){0,1}) (\\s*\\w+\\s*\\W\\s*){0,6}(population|client|customer|stakeholder|society|culture|consumer|end-user)",
    "(reflect(s){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(population|client|customer|stakeholder|society|culture|consumer|end-user)",
    "(adapt(s){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(population|client|customer|stakeholder|society|culture|consumer|end-user)",
    "(attract(s){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(population|client|customer|stakeholder|society|culture|consumer|end-user)",
    "(reflection of|appeal|attract) (\\s*\\w+\\s*\\W\\s*){0,5}(population|client|customer|stakeholder|society|culture|consumer|end-user)",
    "(understand|knowledge about) (\\s*\\w+\\s*\\W\\s*){0,5}(population|client|customer|stakeholder|society|culture|consumer|end-user|diverse groups)",
    "(adapt|meet|reach|deliver) (\\s*\\w+\\s*\\W\\s*){0,5}(population|client|customer|society|culture|consumer|end-user)",
    "(consumers we connect with|customer value|diverse customer base)",
    "(better understand and meet the needs of our customers)"
  ]
}

```

### Script – Learning-and-integration

```

{
  "matchlist": [
    "(improve business performance|competitive advantage|competitive edge|critical to|better performance)",
    "(effective performance|benefits of diversity|benefits from diversity|value to diversity|value in diversity)",
    "(add value|value-add|adding value|vital contribution)",
    "(diversity) (is valued|vital)",
    "(maximize(s){0,1}) (\\s*\\w+\\s*\\W\\s*){0,5}(potential|full potential|best use of human capital|best use of
diversity|flexibility)",
    "(business benefits of diversity|learning from each other|feel(s){0,1}valued|inspiring working environment)",
    "(we value diversity|diversity (\\s*\\w+\\s*\\W\\s*){0,5}valued|innovative workforce|strongest assets|cornerstone for
innovation)",
    "(new|innovative|creative|distinct|different|diverse) (practice(s){0,1}|perspective(s){0,1})",
    "(new|innovative|creative|distinct|different|diverse) (outlook(s){0,1}|standpoint(s){0,1}| point(s){0,1} of view)",
    "(market strategy based on|stronger business results|strengthening our workforce|differences are optimally used)",
    "(operational excellence|diversity is the key foundation|valuing diversity)",
    "(better performance from diverse teams|deliver exceptional outcomes)",
    "(drive success through diversity and inclusion|added value of diversity and inclusion)",
    "(diversity (\\s*\\w+\\s*\\W\\s*){0,5}vital)",
    "(recognized and valued|cornerstone for innovation|leveraging cultural diversity)",
    "(key component of business success|solve problems and respond to challenges|value for society)",
    "(key element of (\\s*\\w+\\s*\\W\\s*){0,5}recruitment and mobility strategy)",
    "(more positive business results)"
  ]
}

```