

# Acceptance of electronic monitoring and its consequences in different cultural contexts: A conceptual model

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## Abstract

The trend towards globalization recently has been further strengthened by the attempts of multinational corporations (MNCs) to outsource technology-based jobs to developing countries. This trend raises questions regarding appropriate performance control options available to MNCs. The current paper proposes that electronic performance monitoring (EPM) may be an effective tool in ensuring production quality standards in distant operations. EPM is widely used in many industrialized countries. However, the use of EPM on a global scale may lead to an array of questions regarding appropriateness and effectiveness of this procedure in different cultural contexts. We propose a model that describes the interaction of major EPM characteristics and national culture dimensions, and suggest possible implications of this interaction on creating culture-sensitive EPM designs. The effects of culture on perceptions of acceptability and fairness of EPM and relevant individual and organizational outcomes are discussed.

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## 1. Introduction

Electronic performance monitoring (EPM) refers to the practice of using computers and/or telecommunication technology to collect, analyze, and report information about employee performance. Recent advances in technology have led to the rapid development of this monitoring method in the organizations in many industries (Grant and Higgins, 1989). However, EPM is a relatively new management tool and specific empirical evidence of EPM use is available only for few industrialized countries (U.S. Congress, Office of Technology Assessment, 1987). Thus, the issue of appropriate EPM design and use in different cultures remains to be investigated. Yet, globalization necessitates a closer look at this issue.

The developments in communication technologies have allowed MNCs to outsource a wide range of marginal organizational functions to developing countries. Yet, it has been reported that many MNCs are deeply dissatisfied with their outsourced operations and fail to ensure the company-wide quality standards of products and services produced on their behalf by foreign subsidiaries and subcontractors (e.g., *Financial Times*, 2003). It has been suggested, that the issue of performance monitoring and control becomes particularly important in the circumstances when controlling operations is costly to implement with increasing geographic distance and cultural difference (Richards, 2000). It was argued that this problem can be resolved by using EPM because it represents a cost-effective way to monitor technology-based jobs at a distance (Sewell and Wilkinson, 1992). It can also allow managers and employees to set reasonable productivity goals, reward high achieving employees, and more quickly identify problems due to more objective, accurate, and timely information available to managers and employees (e.g., Irving et al., 1986).

However, there are costs associated with EPM as well. It was noticed that poorly designed EPM systems are often found to lead to employee stress and dissatisfaction and as a result – to negative organizational outcomes, such as an emphasis on performance quantity to the detriment of quality (Grant et al., 1988; Amick and Smith, 1992). Prior research suggests that the effects of EPM largely depend on the characteristics of the monitoring system (Aiello, 1993; Carayon, 1993). Little is known however about the appropriateness of different EPM features in different cultures. At the same time, a uniform approach to monitoring design may create the resentment among multicultural workforce due to cultural insensitivity of the company-wide policies and practices. Thus, the need to study the effects of national cultures on EPM design becomes increasingly important (Davis, 2002).

The objectives of the present paper are to review the existing evidence of the effects of national culture on the attitudes and behaviors of electronically monitored workers and to develop a model of the relationship between national culture, EPM, and its consequences. The paper also offers recommendations for MNCs that choose EPM as a tool for monitoring their employees and identifies critical gaps in the literature that call for further research.

## 2. Proposed model

We propose a model of the interaction of EPM, national culture, EPM acceptance and perceptions of its fairness, and relevant individual and organizational outcomes.

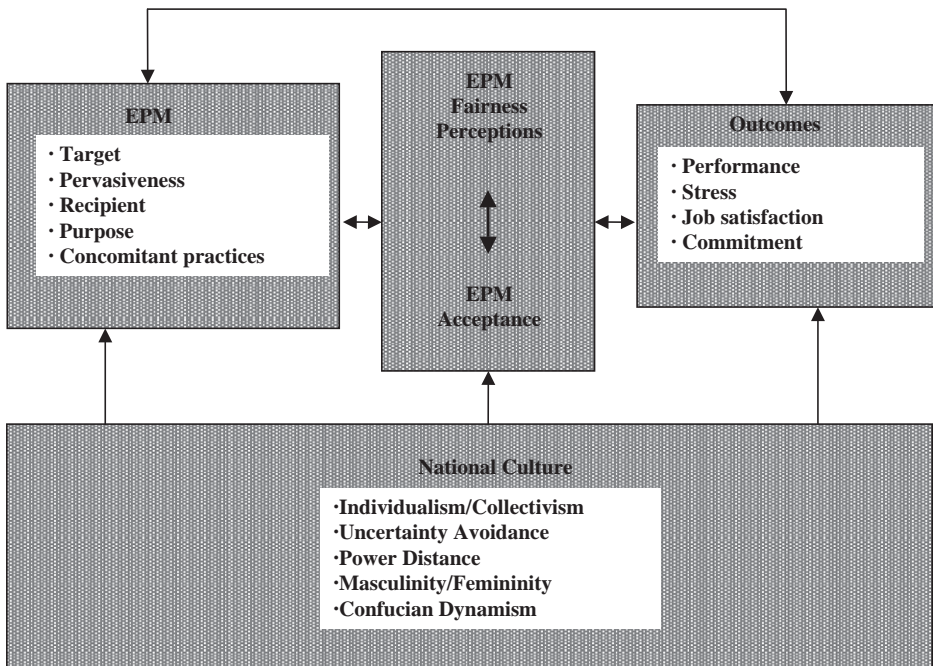


Fig. 1. National culture, EPM, and its consequences: conceptual model.

The model suggests that culture determines attitudes towards dimensions of EPM and leads to different preferences for EPM design. EPM design preferences in turn affect perceptions of EPM fairness and consequent acceptance of a particular electronic monitoring practice, which in turn affect organizational and individual outcomes, such as performance of monitored individuals and levels of stress they experience. The model also reflects the possibility of two-directional relationships between the variables of interest. Due to the limited empirical research on the subject, many lines of influence in the discussed model represent hypothetical, rather than established relationships. Thus, the model should be considered mainly as a basis for future research (Fig. 1).

We would also like to note that attitudes towards EPM are influenced by context not only on national, but on individual, organizational, and industrial levels as well (e.g., Weisinger and Trauth, 2002; Schwarts, 1992; Tan, 2002). Having said that, we consider the discussion of the possible effects of these contextual variables on EPM acceptance and design beyond the scope of the current paper and from now on concentrate exclusively on the effects of national culture.

### 3. EPM and its dimensions

The use of EPM in different cultures may be enhanced by its flexibility. It has been noted that instead of being a monolithic practice, EPM includes different technology-

facilitated practices that allow managers to collect relevant performance data and evaluate employee performance (e.g., George, 1996; Lund, 1992). Prior research (Aiello and Kolb, 1995a) has suggested a number of dimensions that appear to influence the attitudes towards computer performance monitoring. For instance, target of monitoring describes whether EPM is focused on individual or group performance. This dimension can also include such components as the observation of real-time performance (behavior observation) and the observation of performance statistics at the later point in time (observation of results). Pervasiveness of monitoring reflects continuous or intermittent nature monitoring. Recipient dimension describes if the results of monitoring are communicated to supervisors or employees themselves. The purpose of monitoring can also vary widely, ranging from providing feedback and helping employees to improve their performance to being a punitive device that is designed to catch employees when they fail to meet work standards. Finally, the choice of concomitant practices also shapes attitudes towards monitoring and its consequences.

It was found that the dimensions of EPM can be altered to significantly affect the acceptance of a particular monitoring design and perceptions regarding its fairness (e.g., Grant and Higgins, 1991; Stanton, 2000). The diversity of issues covered by the dimensions of EPM suggests that culture might affect these dimensions in different ways and lead to different priorities for EPM designs in different countries. The question of whether there is a need to modify control practices to better fit cultural values of a particular country is of interest to academics and practitioners alike. A considerable body of research emphasizes the importance of taking culture into account while transferring computer technology to the new settings (e.g., Straub et al., 1997; Kaye and Little, 1996; Grant, 2000; Kedia and Bhagat, 1988).

#### **4. Culture and its dimensions**

Out of the many different frameworks that conceptualize culture (e.g., Schwartz, 1999; Trompenaars, 1994), for the purposes of the current model development, we chose Hofstede's cultural taxonomy because although not without limitations, it remains the most widely validated by theoretical and empirical evidence. More importantly, it is most extensively used in information systems research (Choe, 2004; Ford et al., 2003) and thus provides a basis for the comparison of EPM studies done in different cultures.

According to Hofstede, the five dimensions of culture are: power distance, uncertainty avoidance, individualism–collectivism, masculinity–femininity, and Confucian dynamism (Hofstede, 1997). The following section of the paper discusses the dimensions of culture and suggests possible ways in which cultural differences might influence the attitudes towards EPM. Although our propositions imply that cultural dimensions are distinct, it should be noted that they may interact significantly. More complex relationships are beyond the scope of this paper, yet we acknowledge the possibility of simultaneous effects of different cultural dimensions and mention such possibilities wherever appropriate.

## 5. Cultural dimensions and EPM

### 5.1. Individualism–collectivism

*Individualism–collectivism* dimension refers to the relative importance of the interests of an individual as opposed to the interests of a group. Generally speaking, organizations in individualist cultures are more successful in adapting to imported technology than organizations in collectivist cultures due to the task-oriented nature of the former and the social-orientation of the latter (Kedia and Bhagat, 1988). Interestingly, acceptance of EPM was found to be influenced by group norms (Green, 1998). It has been shown that the more an individual is attracted to a group, the more he or she will conform to the group's expectations. Unlike individualist cultures, in collectivist cultures, people's behavior is shaped by cognitions that focus on norms and obligations (Sewell, 1996; Triandis and Gelfand, 1998). People in collectivist cultures thus are more likely to be influenced by their groups in forming their attitude towards EPM and the attitudes towards a practice are likely to be more consistent among collectivists than among individualists.

#### 5.1.1. Target of monitoring

Empirical research conducted in the U.S. suggests that, in the individualist cultures, electronic monitoring on the individual level has proven to be more effective (e.g., Early, 1989, 1993) because in the employment relationship, employees from the individualist cultures are concerned mostly about their personal interests, rather than the good of organization (Case and Young, 2002). Social loafing literature suggests that unless the results of individual performance can be easily identified and traced to specific employees, the performance of workers is likely to decrease (see Guerin, 1999 for a review). Thus, the proposed solution for individualist cultures involves the increase of individual monitoring and a means to achieve acceptable performance levels of employees (Holmes et al., 2002).

At the same time, collectivists tend to oppose individual level monitoring. Individual-level EPM was found to be associated with a decrease in the level of coworker support and socialization (Aiello, 1993; Amick and Celentano, 1991; Austrin, 1991; Pringle and Edwards, 1995). It has been also found to undermine teamwork and increase competitiveness (Grant and Higgins, 1989; Carayon, 1993). Collectivists may also object to individual monitoring because of social harmony considerations and the fear to lose face (e.g., Hempel, 2001). Thus, individual-level EPM may be socially disruptive in collectivistic cultures.

Moreover, some research suggests that individual monitoring in collectivist cultures may also lack the motivating potential it has in individualist societies (e.g., U.S. Congress, Office of Technology Assessment, 1987; Sewell, 1996). People from collectivist cultures were found to gain satisfaction and accomplishment from group-level outcomes (Early, 1989; Moorman and Blakely, 1995) and are more likely to perform organizational citizenship behaviors. Sewell (1996) suggests that "... while a form of employee monitoring which is able to identify individuals who either fail to meet or surpass group norms might be tolerated in an individualistic culture. . . , in a collectivist culture this would be an unseemly, but more importantly, unnecessary intrusion" (p. 28). For instance, U.S.

Congress, Office of Technology Assessment (1987) reported that individual EPM is not common in the collectivist culture of Japan. Employers do not measure individual output and make individual judgments on that basis because the climate in Japanese workplaces emphasizes hard work and team efforts of employees and managers. It was noted that there were cases when individual EPM was introduced in Japan not to increase performance, but rather to make sure that employees did not hurt themselves by working too hard. Daley et al. (1985) suggested that "... U.S. managers who wish to design control systems for foreign divisions in Japan (or vice-versa) may wish to consider modifications to the typical domestic system, or they should at least be aware of the potential differences in responses to the system" (p. 107).

### 5.1.2. Pervasiveness of EPM

Pervasiveness of EPM is linked to two contradicting considerations: those of privacy and objectivity. Consistent with individualistic values, U.S. employees object to EPM when it infringes on their privacy rights (Zweig and Webster, 2002). People in individualistic societies consider privacy to be important both outside of work and in their workplaces. Privacy was identified as the major reason why individualists resist monolithic information systems (Davis, 1994; Dworkin, 1990).

Aiello and Kolb (1995a, p. 171) proposed that "people who highly value personal privacy and individual control may never accept the outside regulation imposed by EPM". Susser (1988) suggests that this attitude is held by many U.S. workers and is the major argument of American labor union leaders who object to workplace monitoring. Pringle and Edwards (1995) found that, in the individualist culture of U.K., workers were complaining about EPM and avoided it because of the belief that managers used EPM to control employees too closely (Pringle and Edwards, 1995). However, there are indications that many companies are moving from traditional notions of privacy to dealing with increasingly complicated cases of fraud control and issues related to increasing productivity in competitive markets. Examples from Australia, Germany, and the Netherlands (Salvaggio, 1987) suggest that control mechanisms that were impossible to establish a couple of decades ago are now accepted. It has been also noted that privacy concerns are mostly associated with the beliefs that EPM is capturing non-performance-related behaviors of employees. Thus, it may be concluded that of major concern is not monitoring itself, but the practice of information gathering when it is not related to performance or when it is concerned with potential rather than real behavior patterns (e.g., Mayer, 1991). At the same time, the system of assessment is often regarded as unfair if the electronic monitoring, which forms the basis of performance evaluation, does not represent all aspects of work. Thus, if EPM provides a balanced and accurate view of individual performance and does not infringe on the privacy rights of monitored workers, it might be accepted in individualist cultures despite the fact, or may be even precisely because it is pervasive.

This sensitivity towards the issue of privacy is not universal. Zakaria et al. (2003) have suggested that "... issues of personal privacy, physical and social space, monitoring and surveillance, autonomy and intimacy also vary from culture to culture" (p. 50). In a collectivistic culture, the concept of privacy is very different, if exists at all (e.g., Hall and Hall, 1987). Interestingly, the word "privacy" itself is not found to exist in many languages

(Rustemli and Kokdemir, 1993). Thus, unlike individualists, collectivists might be more tolerant of pervasive monitoring.

#### *5.1.3. Recipient of EPM results*

Although somewhat limited, empirical evidence suggests that collectivists prefer broader use of EPM generated data than do individualists (e.g., Hall and Hall, 1987). Garvin (1984) found that extensive aggregated performance data in Japanese companies are easily accessible to workers. Thus, the emphasis of the control system in Japan is mostly concerned with the collection of aggregate data to be used by work groups to improve their performance. It was noted that while the collectivists routinely push performance data down to groups of employees, individualists tend to present data only to immediate supervisors or employees themselves (Aiello, 1993), which reflects differences in beliefs regarding the role of individual or work group in performance control. The choice of the recipient of performance information in individualist and collectivist societies is also influenced by power distance, which will be discussed below.

#### *5.1.4. Purpose of EPM*

While individualists view EPM as a tool for objective appraisal of individual performance, the ability of other cultures to view it the same way was found to be limited. The nature of the relationship between organization and employees is seen by individualist cultures as contractual and the goal of performance appraisal is to objectively and fairly evaluate an individual's fulfillment of his/her side of the contract. Thus, it is essential that performance appraisal in individualist cultures focuses on measurement of performance results against objectives rather than personal attributes. Western executives who work in collectivistic cultures often face a lack of preparedness to attribute performance (especially failures) to a single individual. Seddon (1986) noted that, in many developing countries, loyalty and allegiance are implicitly treated as an integral part of the appraisal. Objective performance data gathering is considered an "ineffective ritual" because sophisticated Western performance measurement practices often "work backwards" to justify subjective decisions made by management. Seddon (1986) concludes that "the notion that performance as defined in the USA or UK might be the best indication of a person's worth is hardly sustainable" in other cultures (p. 52). Thus, in collectivistic cultures, EPM should be considered as a part of a broader set of tools that help decision-makers to identify problems and assess performance of workers.

Although there are obvious implications of individualism and collectivism on the choice of concomitant practices, such as pay-for-performance in individualistic cultures and teamwork in collectivistic cultures, we would like to discuss the development in control practices that has serious implications to EPM design and use. Globalization has led to a trend of emulating management practices from different countries in a single company. The review of the literature presented below suggests that many firms are using vertical management controls of Western businesses in combination with horizontal controls traditional in Japanese firms in the attempt to further improve performance (Otley et al., 1995).

In some cases, teamwork combined with EPM may be very effective. While EPM may be used to collect performance data and provide feedback, teams may use this information to resolve any arising production problems. However, some companies use EPM and teamwork for disciplinary purposes and to trace faults to particular teams or individuals and encourage employees to report the incidents of unsatisfactory work to management (e.g., Garrahan and Stewart, 1992; Sewell and Wilkinson, 1992; Wilson, 1995). Garrahan and Stewart (1992) note that because of its flexibility, EPM can facilitate both approaches. It is up to top managers to decide what levels of centralization and decentralization to establish and how to use performance data. Managers often stress the need for high level of tracking and performance monitoring. Although some researchers argue that combining centralized control with teams is the ideal organizational design (e.g., Adria and Chowdhury, 2004), other researchers point out that, in practice, this strategy is hardly achievable and imposes unreasonably harsh controls on workers (Pringle and Edwards, 1995).

Mulholland (2002) for instance argues that a hybrid of tight management control and teamwork compromises effectiveness of teamwork and employee involvement. Case studies from different business sectors reveal employee discontent over the extension of technical control to teamwork (e.g., Sewell, 1996, 1998; Sharpe, 2002). In one of the British call centers that used combination of teamwork and EPM, individual and team-based statistics appeared on the large screen facing operators and reminding them of the importance of productivity. It is not uncommon for information systems to provide team leaders with a detailed breakdown of individual members' performance in addition to team output statistics in the attempt to bring underachieving team members under the pressure of their peers. However, instead of motivating underachieving group members to work harder, all employees tend to feel that the use of monitoring and teamwork is not fair and resent management (Mulholland, 2002).

Interestingly, the combination of vertical and horizontal control is not just the result of the experiments of western managers with Japanese management practices. Examples of Japanese managers using similar tactics also abound. It has been reported that Japanese companies in Europe are characterized by groupism, continuous improvement and consensus decision making, strong informal communication, and loyalty to employees (Van den Hoven et al., 1994). At the same time, they often use individual electronic monitoring control tactics to manage their European workforce (e.g., Sewell, 1996, 1998; Sharpe, 2002). Sewell (1998) found that electronic monitoring was used by Japanese management to identify team-members who were doing substandard work. Interestingly, none of the sophisticated electronic performance monitoring systems used by the Japanese in the U.K. appeared to be in operation in Japanese plants of the same company. In fact, these systems were developed in Japanese headquarters specifically to deal with the need to monitor work in the U.K. plant. Thus, it seems that although the Japanese view production as a team effort and are egalitarian in compensation strategies, they believe that disciplinary measures are necessary in the individualist culture (Kidd and Yau, 2000). "Japanese do not trust westerners in the same way as they trust one another. Trust is the basis for doing business in Japan. In Western cultures, however, it is not unusual to break promises... We believe that Japanese consider westerners to be *gaijin* (outsiders) even when they work for the same company" (Van den Hoven et al., 1994, p. 317). The

empirical evidence reviewed above suggests that combination of EPM and teamwork for the purpose of further increasing productivity is considered intolerable and offensive by employees and should be avoided.

Thus, in collectivist cultures, EPM is most effective in providing group level data, while in individualist cultures, EPM should be considered as a source of individual level performance data. Employees in such circumstances are more likely to respond to the EPM system positively (Table 1).

#### 5.1.5. EPM, performance, and individualism–collectivism

The U.S. research on EPM has utilized social facilitation theory (Zajonc, 1965) to describe the effects of computer monitoring on performance. According to this theory (see Aiello and Douthitt, 2001 for a review), electronic presence facilitates the emission of dominant responses by increasing the drive level of performers. A number of studies have found support for social facilitation effects of EPM in the North American context (e.g., Aiello and Svec, 1993; Aiello and Kolb, 1995b).

There is no guarantee, however, that utilization of EPM in collectivist cultures would produce similar results. In collectivist cultures, people are used to more social interactions, thus, the electronic presence of others in such context might not produce social facilitation of the same magnitude. A limited number of empirical studies indirectly support this proposition (e.g., Guerin, 1993; Cottrell, 1972). This suggests that social experiences may be important in shaping the perceptions and subsequent reactions to social presence or lack of thereof. Social loafing that is believed to result from the lack of individual monitoring in individualist societies is affected by collectivism as well (Sewell, 1996). Early (1989, 1993) found cultural differences in social loafing that were consistent with the individualism–collectivism distinction. Thus, it appears that in collectivist societies, EPM is less likely to have direct motivational effects on performance.

#### 5.1.6. Propositions

- Individualist cultures are more likely to accept EPM that collects objective and comprehensive data on individual performance for evaluation and development purposes.

Table 1  
Individualism–collectivism—possible effects on EPM acceptance

	Individualism	Collectivism
Target	Individual/work products	Group/work behaviors
Pervasiveness	Pervasive	Pervasive
Recipient	Employee/supervisor <sup>a</sup>	Work group/supervisor <sup>a</sup>
Purpose	Objective performance measurement/feedback	Group performance feedback/informal reviews
Concomitant practices	Individual incentives; employee centered processes	Teamwork; group incentives; praise

<sup>a</sup> Depends on the power distance.

- Collectivist cultures are more likely to accept EPM that collects comprehensive data on group behaviors for the purposes of improving group performance and as a basis for informal performance reviews.

## 5.2. Power distance

*Power distance* indicates the extent to which a society accepts the fact that power in institutions and organizations is distributed unequally. Power distance might have an adverse effect on the acceptance of EPM. For instance, it has been argued that technologies that are transferred from small power distance culture might introduce significant changes in the distribution of power, status, and rewards in a recipient organization of the large power distance culture, and are unlikely to be effective (Kedia and Bhagat, 1988). Thus, it is important to make sure that EPM does not distort information flows and power relationships in such organizations. On the other hand, the process of EPM transfer from a large power distance culture to a small power distance culture might be also problematic. It has been reported, for instance, that U.S. managers who had to work in small power distance cultures of Sweden or Norway found it difficult to adapt to the “industrial democracy” processes common in these countries, which from the point of view of Americans unnecessarily infringe upon management prerogatives. Thus, if a U.S.-based company would try to implement EPM in its North European subsidiaries, it might be surprised by the extent of employee leverage in decision making with regard to the operation and implementation of this procedure (Hofstede, 1980). Aiello and Kolb (1995a) suggested that workers in small power distance cultures may perceive EPM as more desirable if it allows for employee control, participation, and ownership, as well as active participation in its implementation. Examples of EPM use in U.S. and North European countries support this view (e.g., U.S. Congress, Office of Technology Assessment, 1987).

### 5.2.1. Pervasiveness of monitoring

Individuals in small power distance cultures often object to EPM because they believe that they do not deserve constant monitoring by their supervisors, and can be trusted to do the job well which is reflected in the Theory Y view of management (McGregor, 1985). Prior research suggests that individuals from large power distance countries tend to agree more frequently with Theory X and favor autocratic style of management (Hofstede, 1991). Employees in such organizational climates might be more likely to accept EPM simply because it has been imposed by their superiors. Thus, workers in large power distance cultures will be more accepting of pervasive monitoring than their counterparts from relatively low power distance cultures. Needless to say in large power distance cultures, superiors are considered as legitimate recipients of performance data, while in small power distance cultures, employees will expect to receive EPM feedback if not instead of, than at least along with, their supervisors (U.S. Congress, Office of Technology Assessment, 1987).

In large power distance cultures, the primary purpose of monitoring is to support the management control function. However, if a culture is characterized by a combination of large power distance and collectivism, autocratic management is accompanied by a

softer, more people-oriented approach. This combination is known as the paternalistic style of management. In these circumstances, monitoring processes aggravate problems of managers who are not only judges but also mentors and coaches. These managers cannot rely exclusively on EPM-generated feedback but need to acknowledge the factors beyond the control of an employee. These tactics facilitate discussion of performance related issues (Kedia and Bhagat, 1988). Thus, reliance on EPM-generated statistics may not be practical in such situations. Siegel (1983) pointed out that an employee-centered approach to monitoring and performance appraisal might be desired at least in some developing countries. Although in his survey existing performance appraisal methods were authoritarian, employees indicated desire for more employee-centered practices.

People in the small power distance cultures on the other hand prefer EPM that is instrumental in helping them improve their performance. They are more likely to use EPM-generated data as a direct feedback and as an objective source of performance information (e.g., George, 1996, Westin, 1992).

While discussing concomitant practices, it is necessary to stress the importance of employee participation in the design and implementation of EPM in small power distance cultures. It has been reported that at least in the U.S. context, most complaints regarding EPM were concerned with the ways it was applied in the workplace. In the situations where workers have been excluded from the design, testing, utilization, and adjustment of monitoring techniques, EPM was considered to be unfair and engendered hostility among employees (Susser, 1988). At the same time, some accounts suggest that the participation of American workers in the process of EPM setup and utilization has led to positive consequences for employees and the company (Alder, 1998). Thus, in relatively small power distance cultures, employees expect to be consulted at all stages of EPM implementation and use (Table 2).

### 5.2.2. Propositions

- Large PD cultures are more likely to accept EPM if imposed by superiors, especially if accompanied by an autocratic style of management and top-down decision making.
- Small PD cultures are more likely to accept EPM if it allows for employee control, participation, and ownership.

Table 2  
Large/small power distance—possible effects on EPM acceptance

	Large power distance	Small power distance
Target	Individual/group <sup>a</sup>	Individual/group <sup>a</sup>
Pervasiveness	Pervasive	Non-pervasive
Recipient	Supervisor	Employee/work group <sup>a</sup>
Purpose	Monitoring/performance appraisal/feedback <sup>a</sup>	Feedback
Concomitant practices	Bureaucratic controls; top-down decision making	Participatory management; worker control; goal setting

<sup>a</sup> Depends on individualism/collectivism.

### 5.3. Masculinity–femininity

*Masculinity–femininity* refers to the reasons that motivate people to achieve different goals—masculine (e.g., assertive, oriented towards the acquisition of money and things) or feminine (e.g., caring for others, oriented towards quality of life).

Generally speaking, it has been found that compared to femininity, masculinity is more successful in absorbing technical innovations, because masculine cultures are performance-driven rather than concerned with social welfare (Kedia and Bhagat, 1988). Thus, implementation of EPM in more masculine cultures might be easier to achieve.

#### 5.3.1. Target of monitoring

The differences in approaches to EPM are reflected in different attitudes towards the levels of monitoring. Feminine cultures are likely to oppose individual-level EPM due to stress considerations. Countries such as Sweden and Norway are traditionally opposed to individual EPM and are considered leaders in legislation that protects workers from the possible harms of individual computer monitoring. North European countries do use EPM and do collect performance data electronically. However, they use only aggregate or group-level data (U.S. Congress, Office of Technology Assessment, 1987).

Similarly to collectivism, femininity implies that individuals emphasize the maintenance of interpersonal harmony and relationships. This is another reason why group-oriented monitoring systems are more effective in feminine cultures. Mendonca and Kanungo (1990) note that feminine culture shifts the emphasis away from job objectives and objective performance standards. People in these cultures do not strive to improve their personal performance but rather to get satisfaction from “work well recognized” and subjective relationships on the job.

It has been also suggested that EPM in feminine cultures is more effective if it concentrates on processes rather than performance results. This is associated with the preference for teamwork in feminine cultures. Teamwork usually implies crossing departmental boundaries. Thus, collection of non-financial, process information is usually required for effective monitoring and evaluation (Choe, 2004).

Masculine cultures have a different approach towards the target of monitoring. They emphasize results rather than processes (Hofstede, 1991). Level of monitoring in a masculine culture is determined by individualism–collectivism orientation.

#### 5.3.2. Pervasiveness of monitoring

Unlike masculine cultures, feminine cultures are less likely to accept pervasive monitoring due to stress considerations. Masculine cultures, on the other hand, prefer pervasive monitoring, because it makes performance data and feedback complete and objective and helps improve performance. For instance, American employees are likely to endorse EPM if it leads to equitable rewards based on objective assessment of individual contributions. Thus, employees in masculine cultures might favor individual EPM since it provides clear information regarding individual performance and allows comparison between individuals. It has been noticed that a large majority of American workers believe that EPM is a way to make objective evaluations if the standards and the procedures are fair. This reflects the concern of American workers over supervisor favoritism and

subjectivity under purely observational evaluations as well as their penchant for individual ‘due-process’ protections (Westin, 1992).

### 5.3.3. Recipient of monitoring

In feminine cultures, the recipient of aggregated monitoring feedback is likely to be a team itself, because it will decrease the stress associated with performance appraisal and help employees improve their performance, while in masculine cultures, the recipient of EPM data will depend on individualism–collectivism orientation.

### 5.3.4. Purpose of monitoring

The existing evidence suggests that EPM in the feminine cultures is rarely used to evaluate employees (U.S. Congress, Office of Technology Assessment, 1987), rather the purpose of electronic data collection is to assist employees in their decision making. Compared to more masculine cultures, feminine societies are more tolerant of low-achievers, and they might not accept EPM on social equality arguments.

This relationship may be moderated by individualism–collectivism. Combination of femininity and collectivism often leads to moralism—a management norm for judging people not based on their performance, but on their “moral stand to serve interpersonal well-being” (Kedia and Bhagat, 1988, p. 152). Moralism contradicts objective and rational focus of EPM.

### 5.3.5. Concomitant practices

In feminine cultures, teamwork was successfully used to enhance quality of work as well as its efficiency (Thompson and Wallace, 1996). The use of semi-autonomous work groups has been prevalent in many European countries, particularly those influenced by a socio-technical or human-centered production tradition, especially Sweden and the Netherlands. Other practices involve competence ladders, job rotation, and collaborative industrial relations. These practices were found to be incompatible with statistical process control, which inevitably leads to constraints on a worker’s time and action. Masculine cultures, on the other hand, stress incentives for good performance. Employees in such cultures would respond better to the EPM that fairly and objectively describes performance and assists the fair but competitive compensation system (Table 3).

Table 3  
Masculinity–femininity—possible effects on EPM acceptance

	Masculinity	Femininity
Target	Individual/group/results <sup>a</sup>	Group/processes
Pervasiveness	Pervasive	Non-pervasive
Recipient	Employee/supervisor <sup>b</sup>	Work group/supervisor <sup>b</sup>
Purpose	Objective performance measurement	Group performance feedback
Concomitant practices	Individual incentives; pay for performance	Human-centered production, collaborative industrial relations, job rotation, competence ladders

<sup>a</sup> Depends on individualism/collectivism.

<sup>b</sup> Depends on the power distance.

### 5.3.6. Propositions

- Masculine cultures are more likely to accept EPM if it provides objective performance data and leads to higher productivity and competitiveness.
- Feminine cultures are more likely to accept EPM if it is used to improve the quality of work life and workers' competence and de-emphasizes individual competition.

### 5.4. Uncertainty avoidance

*Uncertainty avoidance* refers to the emotional response to uncertainty and change. It indicates the extent to which a society feels threatened by ambiguous situations, and tries to avoid them by establishing detailed and formal rules (Hofstede, 1991). It was found that uncertainty avoidance affects the approach towards control. For instance, in weak uncertainty avoidance cultures, control is used primarily for general guidance, while in strong uncertainty avoidance cultures, firms use control as a policing and surveillance instrument (Horovitz, 1978).

The issue of control is essential to EPM implementation and use. One important aspect of electronic work monitoring is that it can be conducted without any interference with work performance. Thus, monitored employees may find themselves in the situation when they do not know for sure when EPM is happening, but may expect their performance information to be collected any time during the work period. Since there is a certain degree of uncertainty regarding the use of EPM, as well as the use of the data generated by computers, cultures characterized by strong uncertainty avoidance might be less likely to accept this method of monitoring. Thus, making EPM visible is very important in strong uncertainty avoidance cultures. This practice already exists in several countries. Some legislation in North European countries for instance, specifically requires employers to provide clear signals to workers at the times when EPM is working (U.S. Congress, Office of Technology Assessment, 1987).

Uncertainty associated with EPM is often linked to the feelings of stress experienced by monitored individuals which is considered to be a possible and undesirable consequence of EPM. In the North American context, numerous studies have found that EPM may lead to stress (see Carayon, 1993; Aiello and Kolb, 1995a for reviews). Ability to have some control over work processes, on the other hand, was found to eliminate or at least diminish the feelings of stress associated with EPM. Some studies even showed that when employees had the ability to control electronic monitoring by delaying or switching it off, they experienced higher feelings of personal control, lower stress, and higher performance levels even when they did not use this option (Stanton and Barnes-Farrell, 1996). North American culture is considered to have weak uncertainty avoidance (Hofstede, 1997). However, if a considerable number of people in the U.S. believe that EPM is stress-inducing, people in stronger uncertainty avoidance cultures might feel even more threatened by this procedure.

Interestingly, people from strong uncertainty avoidance cultures are generally more likely to feel stressed than their counterparts from weaker uncertainty avoidance cultures and have been found to value precision and punctuality, and emotional need to be busy. Working hard in strong uncertainty avoidance cultures is an inner urge that is considered to

be a way of relieving stress (Hofstede, 1992). This may indicate that, in strong uncertainty avoidance cultures, EPM can do more harm than good and may be ineffective as a performance motivator.

#### *5.4.1. Target and recipient of EPM*

Interestingly, not all effects of uncertainty avoidance on EPM are negative. One of the useful characteristics of EPM system is the possibility of providing immediate electronic feedback to monitored employees. Susser (1988) suggested that this feature of EPM may have a positive effect on performance motivation of monitored individuals and has a potential to reduce stress. Early (1988) even found that electronic feedback was more effective than the feedback provided by a supervisor. Carayon (1993) concluded that EPM that provides performance feedback to employees helps reduce their stress, because the feedback system makes monitoring visible and provides employees with a sense of instrumental control. Existing research suggests that when employees themselves are the recipients of their performance data, uncertainty associated with their work is decreasing (e.g., Aiello, 1993). To even further decrease ambiguity, EPM should provide individual-level data so that not to obscure individual results by the aggregated statistics.

In strong uncertainty avoidance cultures, EPM might be considered more favorably if it is more pervasive, due to the fact that pervasiveness of monitoring will decrease ambiguity associated with performance appraisals and will make sure that collected performance data provide a complete and comprehensive picture of an employee's performance.

Uncertainty avoidance also affects the purpose of monitoring. It was found that evaluating employee performance based on objective information may be associated with less uncertainty than when performance evaluations are done based on subjective decisions of the supervisors. Thus, people in strong uncertainty avoidance cultures may actually benefit from introduction of an EPM system, especially if the culture in question has also small power distance, and subjective decisions of supervisors may be questioned by subordinates (Hofstede, 1997). An example of such a culture is Germany, where EPM is successfully used, provided that the operation and use of the data are heavily and formally regulated and codified in labor-management agreements (U.S. Congress, Office of Technology Assessment, 1987).

#### *5.4.2. Concomitant practices*

In strong uncertainty avoidance cultures, EPM practices should be documented and explained to employees. For instance, in Germany, it is common to write “model codes” for electronically monitored work into industry-wide and plant-level labor contracts (U.S. Congress, Office of Technology Assessment, 1987). These work monitoring clauses include detailed specifications of the use and purposes of EPM. In addition to inclusion of monitoring clauses in the labor-management contracts, the German labor relations system also includes Works Council, an elected group of employees who have to be consulted in all matters of enterprise operation, including the introduction and use of monitoring technology. Thus, in strong uncertainty avoidance cultures, it is essential that introduction of EPM and its use are accompanied by a set of practices that reduce ambiguity of this procedure (Table 4).

Table 4  
Strong/weak uncertainty avoidance—possible effects on EPM acceptance

	Strong uncertainty avoidance	Weak uncertainty avoidance
Target	Individual	Individual/group <sup>a</sup>
Pervasiveness	Pervasive	Pervasive/non-pervasive
Recipient	Employee	Employee/work group/supervisor <sup>b</sup>
Purpose	Objective performance measurement/monitoring	Performance feedback/general guidance
Concomitant practices	Detailed explanation of EPM and data use; visibility of monitoring; immediate electronic feedback	Goal setting; pay for performance

<sup>a</sup> Depends on masculinity–femininity and individualism–collectivism.

<sup>b</sup> Depends on the power distance.

### 5.4.3. Propositions

- Strong UA cultures are more likely to accept individual level EPM that provides immediate electronic feedback and more objective performance data. To be effective, EPM should be explained to employees in detail.
- Weak UA cultures are less concerned about the ambiguity associated with EPM use and are more likely to accept EPM that provides general guidance and feedback.

## 5.5. Confucian dynamism

*Confucian dynamism* reflects attitudes towards time, where the high score on Confucian dynamism reflects long-term oriented mentality, while low score reflects more static, short-term oriented mentality. Apart from the studies correlating Confucian dynamism with national performance, very little research of this dimension was done so far (Hofstede, 1997).

### 5.5.1. Target of monitoring

Confucian dynamism has an impact on the preference people have towards evaluating performance results or behaviors. Hempel (2001) noted that managers from different cultures view performance differently. Western managers define and evaluate performance in reference to its outcomes and objective criteria and tend to perceive personality-based appraisals as unfair. Eastern managers, on the other hand, tend to define performance in terms of personal and “moral” characteristics. Hard work in long-term orientation societies is considered a valuable character trait and thus, evaluation of performance carries strong element of evaluation of moral character. As a result, the model of performance appraisal that does not take into account moral character of an individual would be considered incomplete and unfair. Thus, in these societies, performance appraisals favor those workers who are loyal and obedient, over the workers that might objectively perform better but challenge authority and are generally disruptive of group processes. For instance, in Japanese manufacturing subsidiaries in UK, Japanese managers tend to evaluate employees on the performance appraisal criteria that provide information regarding commitment to work, job capabilities, attendance, and team-working skills

(Sharpe, 2002). Hau and Salili (1996) also provided evidence that suggests that, in performance evaluations, people from China or India place a heavy emphasis on effort, while people in America emphasize results thus suggesting that, in long-term orientation cultures, people have more of an egalitarian perspective on performance and believe that effort can compensate for the lack of ability (Hau and Salili, 1996). Thus, in short-term orientation cultures, EPM may concentrate on monitoring performance results, while in long-term orientation cultures, EPM should be a part of a broader assessment and should concentrate on behaviors, rather than performance results of employees.

### 5.5.2. EPM pervasiveness

Managers who take a long-term perspective are more concerned with improving processes rather than concentrating strictly on immediate results. Thus, in long-term orientation cultures, managers demand and use a wide range of non-financial, behavior-oriented information about employee performance (Choe, 2004). In such circumstances, EPM should be more pervasive to reflect all aspects of behavior. For instance, while describing the Japanese quality management system, Garvin (1984) concluded that an important distinguishing feature of this system was that Japanese firms collect extensive performance data. They use a wide variety of performance-related information that is collected daily, aggregated, and analyzed for trends. Long-term planning allows to concentrate on performance management, including setting the goals, employee training and development, and removal of organizational obstacles to effective performance (Kedia and Bhagat, 1988).

### 5.5.3. Purpose of monitoring

Given the emphasis of long-term orientation cultures on subjective and behavioral indicators of performance, EPM should be viewed as one of the many ways to assist decision-makers in performance assessments and employees in improving their performance. Long-term orientation cultures emphasize affective human relations between their members (Chao, 1990). Thus, relationships between employees and the company are likely to be altruistic, not calculative, which makes use of EPM as an evaluation tool ineffective. This suggests that caution should be exercised when using data generated by EPM due to its insensitivity to social context factors. Confucian dynamism also affects status relationships in the society (e.g., Yeung and Tung, 1996; Zakaria et al., 2003) and as a result, information sharing and use (Martinsons and Westwood, 1997), which in long-term orientation societies is “remarkably limited”. Instead of rationally analyzing data with regard to a specific issue, managers from long-term orientation cultures tend to make decisions on a grander scale using knowledge accumulated over the years. At the same time, workers in these cultures are comfortable with limited access to information, because it is not considered to be a public asset (Yeung and Tung, 1996). Thus, management information systems in countries such as China are not designed to promote the release of timely and accurate information. It is kept for the in-group of managers. It was noted that management processes in such societies are not clearly defined and formalized. These findings also suggest that objective data generated by EPM regarding employee performance might be of limited use in long-term orientation societies.

#### 5.5.4. Concomitant practices

The abovementioned characteristics of management control have an implication for performance appraisal system design. If performance of individuals is perceived by people from long-term orientation societies as being influenced by things beyond one's control, then evaluation of performance exclusively based on EPM results will be considered unfair. The Confucian concept of five “cardinal relationships” which prescribes power differences and hierarchy within a society also influences performance appraisal. This explains the preference for hierarchical performance reviews over peer or subordinate reviews. These relationships also mean that subordinates are likely to passively receive feedback without meaningful discussion with the superior. This tendency is further reinforced by the fact that managers in long-term orientation cultures value dependent, obedient subordinates.

Attitudes towards compensation may be influenced by Confucian dynamism as well. [Lim \(2003\)](#) suggested that individuals from long-term orientation cultures view money differently compared to individuals from short-term orientation cultures due to the difference in conceptualization of wealth. Accumulation of wealth is not supported by Confucian values. Instead, the emphasis is placed on accumulation of scholarly achievements and knowledge. This finding has an important implication for organizational training ([Taormina, 1998](#)). Consistent with Confucian tradition, training is highly valued in Eastern cultures and serves an important role in employee retention and motivation. Hence, in long-term orientation cultures, EPM should collect data to help improve skills and competency, rather than as a tool that allows to provide information strictly for compensation purposes. On the other hand, face considerations, which are a characteristic of short-term orientation, were found to be linked to obsession with money, viewing money as a source of power and sign of achievement. Thus, in short-term orientation cultures, EPM should be linked to pay-for-performance and directly taken into account while making compensation decisions ([Table 5](#)).

#### 5.5.5. Propositions

- Long-term orientation cultures are more likely to accept EPM if it provides comprehensive performance data and assists employees in improving their competence and performance.

Table 5  
Short-/long-term orientation—possible effects on EPM acceptance

	Long-term orientation	Short-term orientation
Target	Individual/group/behaviors <sup>a</sup>	Individual/group/results <sup>a</sup>
Pervasiveness	Pervasive	Non-pervasive
Recipient	Employee/group/supervisor <sup>b</sup>	Employee/group/supervisor <sup>b</sup>
Purpose	Feedback for increased competence and performance	Performance measurement/feedback
Concomitant practices	Long-term goals; extensive data collection; training	Short-term goals; focus on immediate results

<sup>a</sup> Depends on individualism/collectivism.

<sup>b</sup> Depends on the power distance.

- Short-term orientation cultures are more likely to accept EPM if it provides performance data that reflect achievement of short-term goals and concentrate on results rather than behaviors.

## 6. Culture and EPM fairness

Organizational justice is conceptualized as consisting of three types of justices: distributive justice, procedural justice, and interactional justice. Moreover, interactional justice has been found to be comprised of two separate facets—interpersonal justice and informational justice (Colquitt et al., 2001). Our prior discussion emphasized the role of EPM in enforcing distributive justice, especially in individualistic societies. We also noted the importance of EPM in reinforcing informational justice perceptions in high uncertainty avoiding cultures. Below, we discuss the two dimensions of the organizational justice concept that are likely to matter most in forming perceptions of EPM fairness—those of procedural justice and interpersonal justice. The procedural justice framework focuses on procedures used to make decisions and their relative fairness. Thus, procedural justice is always considered when the effects of a particular procedure are evaluated. At the same time, performance is often measured and rewarded by immediate supervisors. For this reason, some researchers have argued that interpersonal justice considerations might affect individual and organizational outcomes as well (Colquitt et al., 2001; Masterson et al., 2000).

Although procedural justice has been conceptualized and operationalized in different ways, all of them included participation or “voice” concepts. In the U.S. studies, participation or input into decision-making process is found to be critical to the perceptions of fairness, particularly when evaluation and allocation decisions are made (Morgenson et al., 2001). Our prior discussion suggests that importance of voice differs depending on the culture. Following the logic of Vroom’s (1964) argument, some researchers have suggested that procedural fairness will have greater impact on people who expect and value a certain procedure (Brockner et al., 2001). For example, power distance beliefs were found to have moderating effect on the procedural fairness perceptions (Brockner et al., 2001). Supervisors in small power distance cultures are using more democratic management styles while employees are expected to have higher process control relative to the employees from large power distance countries. It was suggested that different cultures hold different views on the acceptability and desirability of rank-and-file employees’ participation in decision-making (Huo and Tyler, 2001). Yet, there appears to be universal acceptance of various elements of procedural determinants of fairness. For example, voice, objectivity, clarity, and openness have been all recognized as contributing to fairness by individuals from very different cultures (see Greenberg, 2001 for a review).

Although there seems to be some cross-cultural agreement with respect to procedural elements of justice, elements of interpersonal justice are not universally acceptable. Interpersonal perceptions of justice are based on social norms and customs and thus are reflective of cultural nuances that cause justice to be operationalized differently in different countries. Therefore, the interpersonal facets of justice are very sensitive to cultural norms

(Beugre, 1998; Brockner et al., 2000). For example, collectivists tend to assign greater significance to their social exchanges than do individualists (Brockner et al., 2000). Thus, interpersonal fairness is more important and therefore is more likely to have an impact on collectivists.

Culture might also affect group dynamics and fairness perceptions within organizational units (see Huo and Tyler, 2001 for a review). People define themselves by using reference groups. Cultural differences might prompt people to identify themselves with different groups within an organization (e.g., expatriates, locals). In these cases, culture of authority and the culture of subordinates become very important. As suggested by Tyler and Lind (1992), people assess their interactions with authorities in order to derive relational information about their standing within important reference groups. While fair treatment characterized by respect would signal inclusion within a group, unfair treatment will signal marginalization and exclusion. The action of out-group authorities would carry less of the social identity information compared to that of the in-group authorities. This argument suggests that the effect of procedural justice judgments should be stronger when an authority is a member of an in-group and shares cultural norms with the subordinates than when an authority is an outsider. However, it is worth noting that people belong to many different groups at the same time. Some group memberships are more salient than others, thus, the in-group and out-group distinction can be reframed. Individuals who identify themselves with an organization as a whole will perceive out-group authority as a part of organization (in-group).

## **7. Conclusion**

MNCs have subsidiaries and partners all over the world. Their desire to maintain overall control over the quality of their products and services by using EPM technology is justifiable. At the same time, organizations may transfer new technologies from one country to another without realizing that these technologies often presuppose values that run counter to local cultures. Since national cultures are rather stable, the best way to ensure that effectiveness of EPM is to implement and operate it contingent upon the cultural context. Although the EPM literature often portrays computer-based monitoring as a monolithic practice, it has been reported that even within a single country there is a great deal of variance in how monitoring is practiced and how the collected data are used (George, 1996). Thus, modifying EPM to fit the particular cultural context might not be as complicated as it seems. Yet, in order to increase the probability of success for the implementation of EPM, it is desirable to involve acculturated locals in the decision making from the earliest of stages and start with the modified procedure that is adapted to local conditions, while introducing the desired features of EPM depending on the reactions of the local employees.

The present paper reviewed the major dimensions of EPM and their effects on employee attitudes in different cultural contexts. The empirical evidence supporting the proposed relationships is sparse and inconclusive. Compared to other dimensions of culture, individualism–collectivism received more attention in the literature. However, our paper suggests that all dimensions of culture may affect attitudes towards EPM. Future

research should address this issue by systematically studying the relationships between national cultures and different EPM designs.

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