

# e-Learning about Internal Communication, Leadership Trust and Organizational Trust

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## Abstract

This research reports on the effects of an organizational e-learning intervention to improve internal communication on leadership trust and organizational trust. The research is a case study of a Thai furniture manufacturing firm, in which formal internal communication processes are being developed to improve organizational performance. The research proposes a multi-stage model, with six system characteristics (user interface, learning community, system content, system operation, personalization, and expectance confirmation) influencing user satisfaction with the e-learning system; user satisfaction was then proposed as influencing leadership trust, which in turn influenced organizational trust. The study is analyzed using structural equation modelling (SEM). Five of six system characteristics do have a significant influence on user satisfaction; user satisfaction did influence leadership trust, which in turn influence organizational trust as proposed. The implication of this study is that using e-learning to train employees on key processes like internal communication can improve leadership and organizational trust.

**Keywords:** E-learning, Internal Communication, Leadership Trust, Organizational Trust, User Satisfaction

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## อีเลิร์นนิ่งเกี่ยวกับการสื่อสารภายใน ความไว้วางใจผู้นำและความไว้วางใจในองค์กร

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### บทคัดย่อ

งานวิจัยขึ้นนี้รายงานเกี่ยวกับผลกระทบของการแทรกแซงทางอีเลิร์นนิ่งขององค์กรเพื่อปรับปรุงการสื่อสารภายในเกี่ยวกับความไว้วางใจผู้นำและความไว้วางใจในองค์กร งานวิจัยนี้เป็นกรณีศึกษาของ บริษัท ผู้ผลิตเฟอร์นิเจอร์ไทยซึ่งมีการพัฒนาระบบการสื่อสารภายในอย่างเป็นทางการ เพื่อปรับปรุงประสิทธิภาพขององค์กร งานวิจัยนี้เสนอแบบจำลองหลายขั้นตอนโดยมีลักษณะเฉพาะของระบบหากประการ (ส่วนติดต่อผู้ใช้ชุมชนการเรียนรู้เนื้อหา ระบบการใช้งาน ระบบการกำหนดค่า ส่วนบุคคล และการยืนยันความคาดหวัง) ที่มีอิทธิพลต่อความพึงพอใจของผู้ใช้กับระบบอีเลิร์นนิ่ง ความพึงพอใจของผู้ใช้ถูกนำเสนอโดยที่มีอิทธิพลต่อความไว้วางใจผู้นำ และซึ่งส่งผลต่อความไว้วางใจในองค์กร การศึกษาได้รับการวิเคราะห์โดยใช้แบบจำลองสมการโครงสร้าง (SEM) ท้าในหากลักษณะของระบบมีอิทธิพลอย่างมากต่อความพึงพอใจของผู้ใช้ ความพึงพอใจของผู้ใช้มีอิทธิพลต่อความไว้วางใจผู้นำซึ่งจะมีผลต่อความไว้วางใจในองค์กรตามที่เสนอ ความสำคัญของการศึกษาครั้งนี้ คือ การใช้อีเลิร์นนิ่งเพื่อฝึกอบรมพนักงานเกี่ยวกับกระบวนการสำคัญ เช่น การสื่อสารภายใน ซึ่งสามารถปรับปรุงความไว้วางใจผู้นำและความไว้วางใจในองค์กร

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## Introduction

Trust in an organization and in the leadership of the organization underlies the willingness of individuals within an organization to follow leadership directives and more importantly to assume some risks associated with acting within the organization (Schoorman, Mayer, & Davis, 2007). Organizational trust develops over time, deepening as the individual gains more experience with the organization and its leaders (Schoorman, *et al.*, 2007). However, the basis for development of organizational trust does vary between different types of stakeholders (Pirson & Malhotra, 2011). For employees, much of their trust in the organization stems from their perceptions of the organization's management and its benevolence, rather than external factors such as market actions (Pirson & Malhotra, 2011). Thus, trust in leaders influences the formation of generalized trust in the organization (Schoorman, *et al.*, 2007). This raises the question of how employee perceptions of the organization's management is shaped.

This research proposes that internal communication effectiveness is a foundational factor in development of leadership trust and consequently organizational trust. Effective organizational communication can be briefly defined as communication within the organization that is timely, accurate, relevant and reaches the right people (Miller, 2015). However, the internal communication of an organization is a highly complex process, consisting of a combination of formal and informal interpersonal, small-group, and broadcast communications on a variety of topics (Miller, 2015). Thus, ensuring that internal communication is effective is a challenge even for relatively small organizations, and becomes even more challenging as the organization grows and communication becomes more complex (Miller, 2015).

The purpose of this research is to examine the effects of internal communication effectiveness on followers' trust in their leaders and organization. The study is a case study of Thai furniture manufacturing firm, in which an organizational intervention to improve organizational communications was undertaken as part of a larger research process. The research examines perceived effectiveness of an e-learning tool used to promote internal communication and its effects on communication outcomes.

## Literature Review

### Internal Communication

Internal communication is a relatively new field, dating only to the mid-1990s as an organized topic of study (Verčič, Verčič, & Srirahmesh, 2012). There are a range of different perspectives on internal communication developed, ranging from those of organizational psychology and management studies to marketing communications and internal public relations (Mazzei, 2014). As a result, the concept of internal communication is still poorly defined, with multiple theoretical models and perspectives under the broad umbrella of communication that occurs within the organization (Mazzei, 2014). One definition holds that “internal communication is generally defined as the communication flow among people within the boundaries of an organization (Mazzei, 2010, p. 221).” This definition positions internal communication as a two-way process that can occur through both formal and informal channels, across organizational divisions (horizontal communication) and hierarchies (vertical communication) (Mazzei, 2010). This definition is therefore far more flexible and useful for understanding the specifics of internal communication that emphasized a top-down, one-way management communication path, which developed as part of the internal public relations theory of the 1990s (Cornelissen, 2004).

Internal communication can also be considered as a strategy, not just a process, as one definition makes clear: “the aspiration... of achieving a systematic analysis and distribution of information at all strata simultaneously coordinated in the most efficient way possible (Verčič, *et al.*, 2012, p. 225).” Thus, the goal of the internal communication process is ensuring that information efficiently reaches its intended audience and can be transmitted between those that can have the most effect from its use (Verčič, *et al.*, 2012). The implication of this broader definition is that internal communication does not only refer to broadcast communications made generally available (for example, company newsletters), but also to the transmission of process-related and strategic information that is relevant to the work processes of teams and individuals (Verčič, *et al.*, 2012). It is also relevant that internal communication processes include informal communications between individuals (Welch & Jackson, 2007). This is more relevant in some organizations than in others; for example, deeply stratified organizations may have

a culture of informal communication and cooperation between individual members to achieve goals efficiently (Welch & Jackson, 2007). Thus, both formal and informal communications need to be considered as part of the internal communications flow within the organization. While the intervention of this research focused mainly on formal communications, this remains a critical theoretical point.

### Internal Communication E-Learning Effectiveness and Satisfaction

This research takes place in the context of an e-learning intervention to improve internal communication processes within an organization. E-learning, like internal communication, does not have a single consensus definition for the concept (Sangrá, Vlachopoulos, & Cabrera, 2012). However, e-learning can be generally described as the use of computer-based or Internet-based tools for assisting in and managing learning and communication between the teacher and student (Arkorful & Abaidoo, 2015). E-learning is frequently used in organizations, either as a primary training platform or as a supplementary training platform for technical and general skills and knowledge (Clark & Mayer, 2016). E-learning in organizations can range from preliminary communication of knowledge to long-term employee development goals such as leadership training and continuing education (Clark & Mayer, 2016). Thus, e-learning is a critical component of the organization's training and development process.

There are many models of effective e-learning. Some of these models focus on system characteristics like system quality, information quality, and service quality (Wang, Wang, & Shee, 2007). Others focus on wider factors like learner characteristics and perception, course design and instruction practices (Sun, Tsai, Finger, Chen, & Yeh, 2008). Because of the nature of the research, the emphasis was placed here on system characteristics rather than individual user characteristics.

A review of the literature on this topic identifies six characteristics of the system and user that could be considered antecedents of satisfaction with e-learning systems (Bhuasiri, Xaymoungkoun, Zo, Rho, & Ciganek, 2012; Holsapple & Lee-Post, 2006; Lee, 2010; Shee & Wang, 2008; Siritongthaworn & Krairit, 2006; Wang, 2003; Wang, *et al.*, 2007). These characteristics include:

- **User interface:** the technical implementation of the system and ways in which the user makes use of the system (Shee & Wang, 2008; Wang, 2003; Wang, *et al.*, 2007);

- **Learning community:** the degree of interaction between learners and instructors, including ease of discussion and data sharing and learning exchanges (Shee & Wang, 2008; Wang, 2003);
- **System content:** The learning content or information associated with the course and its quality (usefulness and currency) (Bhuasiri, *et al.*, 2012; Holsapple & Lee-Post, 2006; Shee & Wang, 2008; Siritongthaworn & Krairit, 2006; Wang, 2003);
- **System operation:** The reliability and operational speed of the e-learning system (Bhuasiri, *et al.*, 2012; Holsapple & Lee-Post, 2006; Siritongthaworn & Krairit, 2006)
- **Personalization:** The ability of the user to adapt the e-learning system to his or her needs and preferences (Shee & Wang, 2008; Wang, 2003); and
- **Expectance confirmation:** The user's perception that his or her expectations of the operation of the system have been achieved (Lee, 2010)

All six of these factors are associated with different e-learning system outcomes, including adoption and/or continued use of the system (Bhuasiri, *et al.*, 2012; Holsapple & Lee-Post, 2006; Lee, 2010; Shee & Wang, 2008) and user satisfaction with the e-learning system and the content communication through the system (Bhuasiri, *et al.*, 2012; Holsapple & Lee-Post, 2006; Lee, 2010; Shee & Wang, 2008; Siritongthaworn & Krairit, 2006; Wang, 2003; Wang, *et al.*, 2007). For the purposes of the current research, satisfaction – or the user's perception that the e-learning system was effective at achieving their expected goals (Lee, 2010) – is the most appropriate outcome. This is also the outcome that has the most support within the literature. Another possible intermediate outcome that can be identified within the literature is perceived usefulness which is one of the constructs of Technology Acceptance Model Ventakesh & Davis, 2000). However, as the author of that study note, perceived usefulness of e-learning systems and user satisfaction with these systems is nearly identical, suggesting that these two outcomes measure the same underlying constructs (Lee, 2010). Thus, only user satisfaction was included in this study.

Following research on user satisfaction with e-learning systems, the first six hypotheses of this study are proposed as follows:

Hypothesis 1: The user interface of the e-learning tool influences internal communication e-learning satisfaction.

Hypothesis 2: The learning community of the e-learning tool influences internal communication e-learning satisfaction.

Hypothesis 3: The system content of the e-learning tool influences internal communication e-learning satisfaction.

Hypothesis 4: System operation capabilities of the e-learning tool influences internal communication e-learning satisfaction.

Hypothesis 5: Personalization of the e-learning tool influences internal communication e-learning satisfaction.

Hypothesis 6: Expectance confirmation of the e-learning tool influences internal communication e-learning satisfaction.

### **E-Learning Satisfaction and Leadership Trust**

Trust in the leaders of an organization can be briefly defined as a relationship in which an individual is willing to expose himself or herself to risk from the actions of that leader based on prior experience and knowledge of reliability (Douglas & Zivnuska, 2008). Trust in one's supervisor and in the leadership of an organization is one of the key antecedents of an organization's performance (Douglas & Zivnuska, 2008). Trust in both supervisors and top organizational management can be either affective (based in feelings about the individual(s)) or cognitive (based in evaluation of their previous decision making) (Yang & Mossholder, 2010). Trust in supervisors and leaders of the organization is known to influence individual outcomes, such as organizational commitment and turnover intentions as well as work performance (Yang & Mossholder, 2010). Thus, leadership trust is an important component of the firm's ultimate performance.

One of the serious gaps in the academic literature on leadership is on the effects of so-called e-leadership or virtual leadership, including the effect of e-learning on leader-member relationships (Avolio, Sosik, Kahai, & Baker, 2014). One of the reasons for this gap in the literature is that leadership is proposed as a personal relationship that is somehow incompatible with virtual leadership (Avolio, *et al.*, 2014). However, it is also possible that it is due to the limited study of the organizational effects of e-learning, since most studies conducted on this topic focus on individual user outcomes rather than organizational outcomes such as leadership trust (Sun, *et al.*, 2008). Thus, in response to the importance of leadership trust and the gaps in the research on e-learning

and its role in trust development, we propose the following relationship between e-learning satisfaction and leadership trust:

Hypothesis 7: E-learning satisfaction has a positive effect on leadership trust.

### **Leadership Trust and Organizational Trust**

The final relationship to be examined is the relationship of leadership trust and organizational trust. Organizational trust can be defined as the individual's belief in and trust in the organization, which develops over time and with deepening of the relationships of the individual and the organization (Schoorman, *et al.*, 2007). Organizational trust varies depending on the role of the stakeholder in the organization (Pirson & Malhotra, 2011). For employees, organizational trust mainly base their trust on perceptions of the organization's managers – both their own immediate supervisors and the organization's top-level managers – and whether these managers act in a benevolent way toward employees (Pirson & Malhotra, 2011). In other words, for organizational employees, the development of trust in leadership is a critical antecedent for development of organizational trust (Pirson & Malhotra, 2011). This does not mean that an individual that trusts his or her supervisor will have trust in the organization overall; in fact, individual trust within the organization typically varies across the levels of the organization (Fulmer & Gelfand, 2012). Fulmer and Gelfand (2012), who conduct a systematic review of leadership trust research, find that individual trust depends on level of the organization (for example, individual leader-follower relationships; teams; departments; and full organization) and on activities (for example, negotiation, processes; and organizational change). However, they do find that leadership trust usually precedes more general levels of organizational trust (Fulmer & Gelfand, 2012). Another study shows that improving leadership quality and encouraging trust relationships toward leaders is one of the tools organizations can use to improve organizational trust (Kramer & Lewicki, 2010). Thus, there is strong evidence that leadership trust is an antecedent for organizational trust. The final hypothesis examined in this study is:

Hypothesis 8: Leadership trust has a positive effect on organizational trust.

## Theoretical Framework

The theoretical framework (Figure 1) demonstrates the proposed relationships of the study, including the hypotheses that are presented above.

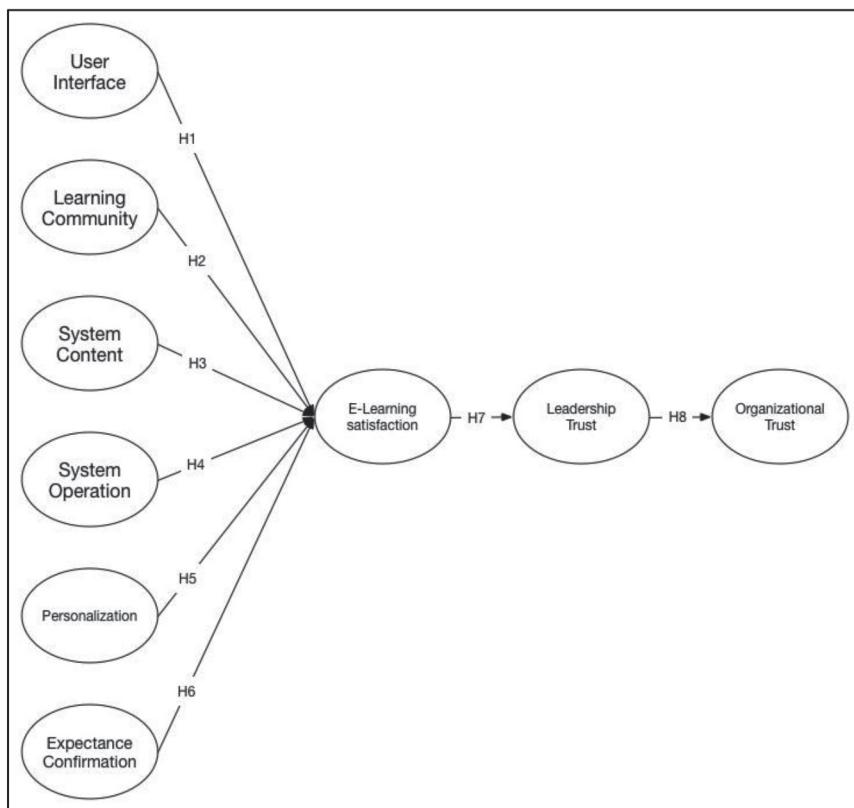


Figure 1: Theoretical Framework and Hypotheses

## Data and Methods

This research is part of an organizational research project aimed at improving internal communication. The project is taking place in a Thai furniture manufacturing company, which has grown rapidly within the past few years and is modifying their organizational process flows to cope with the strain of this rapid growth and to improve organizational efficiency. With this intervention, the organization is particularly hoping to develop bottom-up communication, which is one of the weakest areas of their communication process. This project involves the development of an e-learning module

(using a previously existing e-learning system) to transfer knowledge about internal communications within the organization.

The questionnaire items are adapted from several studies reviewed in the literature, including: system characteristics and user satisfaction (Bhuasiri, *et al.*, 2012; Holsapple & Lee-Post; Lee, 2010; Shee & Wang, 2008; Siritongthaworn & Krairit, 2006; Wang, 2003; Wang, *et al.*, 2007); and leadership trust and organizational trust (Schoorman, *et al.*, 2007). Three items are used to measure each scale. Cronbach's alpha is used to test initial internal consistency of the scales, with the results ( $\alpha = .709$  to  $\alpha = .895$ ) indicating an acceptable level of consistency.

Data is collected from a random sample of employees in the organization ( $n = 309$ ). An online survey is used to collect the data, with recruitment notices sent through the firm's email system with the facilitation of the company's human resources department. Data collection continued for approximately two weeks following the initial training process, with all employees being contacted to complete the survey once they had finished the training. Data is analyzed in SPSS AMOS, using a confirmatory factor analysis (CFA) approach. The hypotheses are evaluated based on the outcomes of the path analysis, which shows the regression coefficients and significance ( $p < .05$ ) of the relationships tested.

## Findings and Analysis

### Findings

The goodness of fit test for the final model indicate adequate model fit to the data ( $\chi^2 = .112$ ,  $p = .978$ ; RMSEA = .03; CFI = .978). The model squared correlation indicates moderately high predictive power of the full model ( $R^2 = .564$ ). The path analysis (Figure 2) indicates that of all the relationships proposed, only one relationship (Personalization → E-Learning Satisfaction) is not significant.

Hypotheses 1 through 6. The significant factors in e-learning satisfaction include User Interface ( $\beta = .36$ ), Learning Community ( $\beta = .48$ ), System Content ( $\beta = .53$ ), System Operation ( $\beta = .42$ ), and Expectance Confirmation ( $\beta = .64$ ). Thus, Expectance Confirmation has the strongest effect, followed by System Content, Learning Community, System Operation, and User Interface. Personalization is not significant, which may be because the

e-learning system offered limited scope for personalization. Thus, Hypotheses 1, 2, 3, 4 and 6 are accepted, while Hypothesis 5 is rejected.

Hypothesis 7. The E-Learning Satisfaction → Leadership Trust relationship is significant ( $\beta = .38$ ). Thus, Hypothesis 7 is accepted.

Hypothesis 8. The Leadership Trust → Organizational Trust relationship is significant ( $\beta = .51$ ). Thus, Hypothesis 8 is accepted.

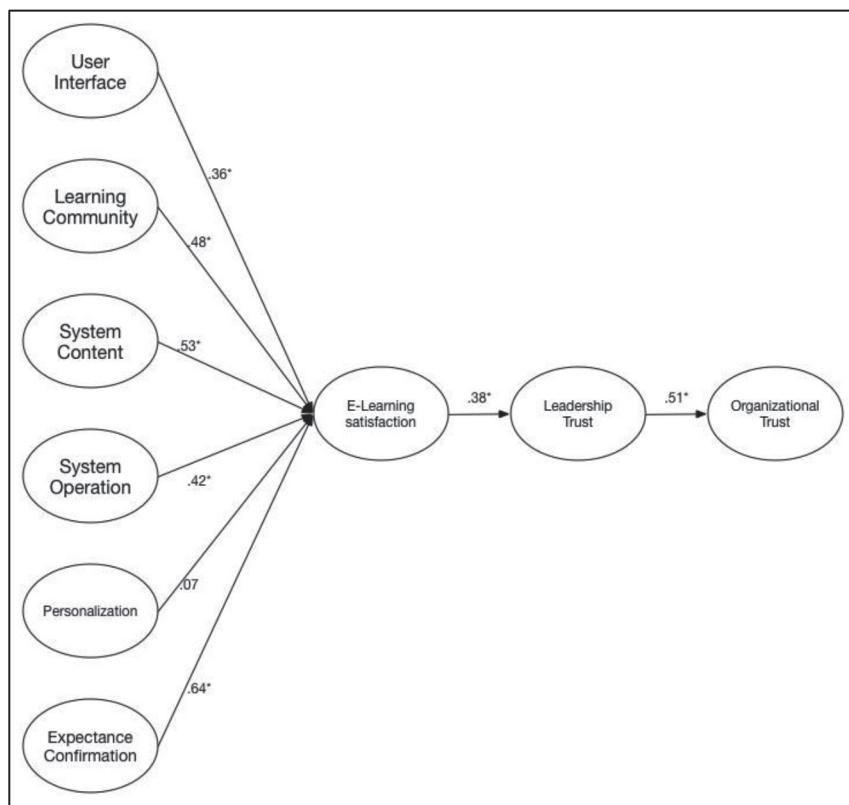


Figure 2: Path Analysis

### Analysis and Discussion

The findings confirm the significance of five out of six of the factors in user satisfaction with an e-learning system that were proposed by previous authors (Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012; Holsapple & Lee-Post, 2006; Lee, 2010; Shee & Wang, 2008; Siritongthaworn & Krairit, 2006; Wang, 2003; Wang, *et al.*, 2007). The only relationship that is not as expected was the effect of personalization on user satisfaction, which is proposed by several authors (Shee & Wang, 2008; Wang, 2003). To some

extent, this may be because there are limited opportunities for personalization within the e-learning system that was implemented. The system has a straightforward interface and the e-learning modules are straightforward and assigned individually to users depending on their job role. However, it is also possible that personalization does not make much of a difference in user satisfaction generally, as indicated by its absence from the standardized model of e-learning system use proposed by Wang, *et al.* (2007). This model uses the same framework as Wang (2003) and Shee and Wang (2008), but consists of a validated and reliability-tested model. Thus, it is possible that personalization simply is not a significant factor in this context.

The relationship of user satisfaction with the e-learning system and leadership trust (Hypothesis 7) is the main novel contribution of this research. Even though virtual working and virtual learning have been growing in frequency since the early 2000s, there is little research into how leadership and e-learning are connected (Avolio, *et al.*, 2014). This research shows there was such a connection. Of course, it is possible that this effect is due to some other unexplored factor, such as increased knowledge about internal communication supporting the development of a stronger trust relationship. In fact, the purpose of the organizational intervention is to develop precisely such increased trust in the individual's supervisors and leaders and to develop two-way and bottom-up communication. This was not tested in the bounds of the current research, but is one area that could contribute to further research.

Finally, the research also supports the relationship between leadership trust and organizational trust (Schoorman, *et al.*, 2007). As expected, this is only a moderately strong relationship, which is probably because organizational trust occurs at different levels and applies to different domains rather than being a generalized phenomenon (Fulmer & Gelfand, 2012). This finding has some significant implications for the organization, since improving trust in immediate supervisors and leaders is one way to improve organizational trust (Kramer & Lewicki, 2010). However, it also has another implication which is important: increased leadership and organizational trust, along with the improved knowledge of internal communication processes from the e-learning module, could improve bottom-up internal communication within the firm. This would achieve one of the firm's major strategic goals and contribute to its organizational success. Thus, this relationship has real implications for the case study firm.

## Conclusion

This research studies a missing link in the relationship of e-learning and organizational performance: the effects of a satisfactory e-learning experience on the organization member's trust in their leaders and in the organization overall. The evidence shows that there are several factors that contributed to satisfaction with an e-learning experience, which focuses on internal communication. It also shows that user satisfaction with the e-learning experience increases their trust in their supervisors and the organization's leaders, which in turn affects their levels of organizational trust. Of course, trust in leaders and organizations develops over time and through repeated interactions and reinforcement of affective and cognitive perceptions, and thus it was never expected that a single e-learning experience would fully explain either leadership trust or organizational trust. However, this study shows that there is a strong connection between these two concepts.

There are some implications that emerge for both practice and research from these findings. The main practical implication is that organizations should consider using e-learning to reinforce leadership trust and organizational trust when making significant changes, such as changes to the internal communication processes of the firm. The case study firm originally intended to improve bottom-up communication from a largely passive workforce, but its experience shows that transmitting knowledge about the organization's communication processes could have much wider effects. The main implication for research is that, in keeping with Avolio, *et al.*'s (2014) research, there is not enough research on the effects of virtualization of the workplace on leadership and development of relationships within the organization. Even though e-learning and virtual teams have been part of the organizational landscape for nearly two decades, or in some cases longer, there has been little work done to adapt or change leadership models to account for these changed social relationships and circumstances. This is an area that could be improved through further research.

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