

Tyrant Leaders as e-Government Service Promoters: The Role of Transparency and Tyranny in the Implementation of e-Government Service

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Abstract. While prior studies offer significant insights into the extent of EGS (Electronic Government Service) implementation from productivity-transparency trade-off perspectives, critical questions remain about how transparency of government department/agency facilitates the implementation timing of EGS. Such questions are important because transparency is an explicit indicator to outsiders, such as IT (Information Technology) vendors, to help them plan their marketing strategies in advance. Drawing insights from signaling and upper echelon theories, this research contributes to the electronic government literature by proposing that the government department/agency performance transparency is closely aligned to its timing of EGS implementation. Moreover, this relationship varies as it depends both on the size of the government department/agency and the level of tyranny of its leader or head. Empirical findings indicate that, in order to gain a competitive advantage, a tyrannical manager in a smaller organization accelerates the speed of IT implementation to use it as a strategic weapon to elicit favorable public response. This research, thus, complements and extends extant knowledge by exploring the key roles of both a government department/agency performance transparency and its tyrannical leadership on the timing of EGS implementation.

Keywords: Electronic government service · Implementation · Performance transparency · Signaling · Tyranny · Upper echelon

1 Introduction

Implementing a successful EGS (Electronic Government Service) has become a critical issue for government administration [1]. EGS uses computer hardware, computer software, database management technology, and networking and telecommunication technology to enhance the accessibility and delivery of government information and service for citizens [2]. Thus, understanding the key determinants of EGS implementation is a critical and constructive way for IT (Information Technology) infrastructure providers to determine market segmentations and help them evaluate relevant

promotional tactics [3]. Transparency is likely to play an important role in the context of ICT (Information and Communication Technologies) as it may have a facilitative impact on various relationship outcomes such as gaining trust [4], enhancing purchase intention and strengthening information exchanges between sellers, buyers and external stakeholders [5–8]. More specifically, many governments have worked to increase transparency. As EGS is viewed as a cost-effective and convenient means to promote transparency, it has been widely employed in many comprehensive transparency efforts [9, 10].

While prior studies offer significant insights into the extent of IT implementation from a productivity-transparency trade-off perspective [3], questions remain about whether transparency will affect the timing of organizational technological artefact implementation [11]. This question is important as transparency is an explicit indicator for outsiders such as IT vendors to plan their target markets in advance. Moreover, organizational performance has been shown to be affected by the risk-taking propensity of its leader such as chief executive officer (CEO) [12].

While organizations are the reflection of their top management team [13], it is essential to discuss organizational moves from its leadership point of view. Upper echelon theory suggests that, in most cases, this reflection is attributed to the disposition of CEOs alone [14]. Since it is they who play the decisive roles by setting the direction of the organization, making general decisions and building the organizational culture. Hence, an organization, either informally or formally, implements IT through each interaction when the top manager sets his or her own priorities [15].

For instance, as the CEO of Apple, which has been a highly visible firm in terms of media attention and accessible information, the authoritarian Steve Jobs was described by Walter Isaacson as the “creative entrepreneur whose passion for perfection and ferocious drive revolutionized many industries”. Arguably, Apple is a highly innovative business with a tendency to adopt and implement novel technology, whereas, in contrast, Bill Gates, the head of Microsoft, being relatively democratic, spends his time communicating with his information technology specialists about how new products can become standard industry products [16]. An example of the consequences of this democratic approach is Microsoft’s tendency to provide less accessible information for stakeholders by using lengthy descriptions rather than the simpler Q&A format, hence its implementation speed when adopting IT might be argued to be somewhat slower than Apple’s. Because the combined effect of organizational characteristics and executive characteristics is worth exploring [17], this research explores the interaction effects between the tyrannical leadership of government department/agency head and performance transparency on setting the timing for the implantation of electronic government service.

Drawing insights from signaling and upper echelon theories, this research theorizes that a government department/agency with a high level of performance transparency will be relatively fast in EGS implementation and it will examine how a tyrannical government department/agency head may sharpen the relationship between the government performance transparency and the timing of EGS implementation. The theoretical framework, propositions and managerial implications are discussed next.

2 Theoretical Background

2.1 Transparency as a Signal

The concept of transparency has been investigated across different academic disciplines. The innovation management literature, for example, has examined it in the context of openness or scientific disclosure in innovation activities [18–20]. In the marketing field, researchers have explored information disclosure in the context of customers' responses to nutritional information and drug risk information [21, 22] and in IS (information system) literature, relevant concepts, such as business to consumer relationships and digital markets, have also been examined [23–26]. These works defined information transparency as the level of availability and accessibility of market information to its participants, implying the inclusion of both the quantity of information available and the quality of interface to make information accessible.

We define transparency as the extent to which stakeholders view the information provided by an organization as being both accessible and objective [7]. Transparency in business-to-business (B2B) communication among stakeholders such as governments, investors, media, vendors and service providers may improve an organization's performance in terms of efficiency and effectiveness [8]. In this respect, signaling theory may be applied in order to explain how transparency can benefit an organization [7]. This theory holds that, in a market characterized by information asymmetries, one exchange partner communicates unobservable elements, such as intention, ability, skill levels, quality and performance, by providing an observable signal [25, 27, 28]. Indeed, information transparency in contrast to information availability or information sharing, is deliberate, which implies the intention of the sellers to disclose or withhold electronic mercantile information that can affect policies and decisions with opportunities provided by e-commerce technologies [25].

Hence, IT service implementation is significantly affected by degrees of transparency because visibility from enforcement and auditing encourages businesses to be more likely to adopt modern efficiency-enhancing technologies [3]. Such operational clarity might be systematically correlated with organizational performance that leads a firm to initiate a "see through" approach that signals its competence in delivering its promises [7]. As such, transparency becomes a fundamental method of signaling different cues in the marketplace, thus enabling outsiders, such as IT service providers, to identify potential markets. Thus, exploring how sending different types of information transparently shapes the message being sent regarding its IT implementation strategy is an important issue for IT service providers.

2.2 The Upper Echelon in Strategic IT Decision Making

According to Hambrick and Mason [13], firms are a reflection of their top management teams or leadership, although most of the time, the reflection could be of the CEO [14]. Hayward and Hambrick [29] researched organizations along psychological lines and their findings were affirmed by more recent studies by Dwivedi et al. [15] and Gerstner et al. [30] who explored it from both a cognitive perspective and in terms of individual

dispositions, such as hubris and narcissism in order to understand how these factors translate to decisions and outcomes at organizational and technological levels. For instance, Chatterjee and Hambrick [14] were of the opinion that narcissistic CEOs do not generate big wins or big losses in terms of their companies' performances, although they favor relatively bold or risky actions that attract attention. Therefore, from a psychological cognitive perspective, such executives' characteristics are manifested in their strategic choices, particularly in terms of IT adoption strategies, since this is one area that can earn them admiration and reinforce their self-image [15].

While narcissism is one of the destructive business leadership taxonomies, a CEO's tendency for tyrannical behavior has been suggested to act as another major contribution to an organization's extraordinary performance [31, 32]. Ashforth [33] defined a "petty tyrant" as "someone who uses power and authority oppressively, capriciously, and perhaps vindictively" although such leaders may behave in accordance with the legitimate goals, tasks, and strategies of their organizations [31]. Therefore, despite the fact that tyrannical leaders may be viewed as abusive, it is often apparent that they also engender employee satisfaction; hence, they may perform well on work-related assignments [34]. Skogstad [35] argued that leaders who behave badly toward subordinates may be highly constructive in their relations with customers or business partners or toward upper management; they may, of course, also have important professional or technical skills, which Ma et al. [32] described as "the paradox of managerial tyranny". More importantly, the dispositions explored in earlier research are from self-evaluation of the CEOs [14, 15, 30].

In this research, a tyrant is characterized by general public consensus together with perceptions and evaluations from subordinates, stakeholders (citizens) and media. Therefore, the role of tyrannical heads in influencing their organizations' strategies may prove to be contradictory factor, hence a matter worth investigating.

3 Proposition Development

3.1 The Effect of Transparency on EGS Implementation

Being transparent in a B2B context might be considered important for organizations as it could enhance their bargaining power by gaining the trust of service providers in attempt to negotiate preferable deals such as low interest rate, price reduction, aftercare service extension and so on. Many organizations have adopted innovative transparency policies to help stakeholders reduce uncertainty or perceived risk, and furthermore, gain their trust [6]. Such policies, which may be assisted by e-services, include offering unbiased information from the integration of various media channels, disclosing stakeholder reviews on websites, and providing accessible and comprehensive information across devices [24, 25].

However, transparency through technologies is a double-edged sword as it puts organizations in a situation where on the one hand it helps them to both increase productivity and signal their competitive advantages, while, on the other hand, such

transparency of transactions leaves a clear audit trail, thus potentially making operational costs higher than they are for those who do not use IT systems [3, 26]. The dilemma between productivity and transparency causes the “Peter Pan Syndrome” whereby organizations prefer to stay small than to grow, thus impeding computer technology implementation. It is noticeable, therefore, that the preference for productivity-enhancing technologies has been empirically confirmed to be higher when organizations are motivated to be transparent [3]. As such, transparency predicts IT implementation in a way that organizations expect their IT functions to enable them to exploit new opportunities relatively quickly while also reacting to unanticipated changes.

Indeed, timeliness is an essential component of IT implementation as it results in better responsiveness to external changes and also to either attain or maintain competitiveness [11]. The focus of much IS research has been on the influences that impact those stages that come near the end of the IT innovation decision-making process; hence, the objective of this research is to identify the drivers that influence the earlier stages of the decision-making process.

In sum, government departments/agencies may rely heavily on EGS in a way that they can either easily distribute the information or manage content in order to abide by principles. Therefore, whether or not government departments/agencies are instructed or voluntarily requested to disclose their operational performance in an accessible and unbiased form for potentially interested parties, a high level of performance transparency could lead them to implement EGS quickly. In contrast, government departments/agencies with low performance transparency that retain their existing systems are less likely to be in the spotlight, which may result in a relatively slow pace in switching to EGS. We thus proposed that:

- P1: Government departments/agencies with high (versus low) transparency have a relatively fast EGS implementation timing.

3.2 The Interaction Between Tyrannical Leadership and Transparency

With the preceding discussion in mind, we argue that tyrannical leadership of a head of government department/agency could strengthen the positive relationship between performance transparency and his or her department/agency timing of EGS implementation. Thus, if both these elements come into play a firm’s speed of EGS implementation will be fast.

The concept of petty tyranny or tyrannical leadership was originally introduced by Ashforth [33] as a description of leaders who exercise their powers over subordinates in a lordly manner and behave in arbitrary ways. However, tyrannical CEOs can influence strategic choices extensively and efficiently [32]. This is akin to the endorsement of a celebrity whose skills, output and charisma may attract media attention and then gain wide public attention. At the same time, a strict and authoritative managerial style of the executives may assist employees to clearly understand the direction of their firm.

Given the publicity generated by transparent performance, the autocratic leaders who make up mind according to their own beliefs accelerate the timing of IT implementation, since they tell their subordinates what to do and they make sure they have

sufficient controllable resources on hand to facilitate their decisions [32, 33]. Consequently they elicit favorable public response by means of their IT, using it as a strategic weapon in order to gain a competitive advantage.

Furthermore, in an intriguing line of research on diffusion and implementation of IT, power and politics have been examined and have suggested that technology usage depends on superiority for the purpose of manipulation, control and coercion [36–38]. Tyrannical leaders tend to avoid resistance to technology implementation by emphasizing managerial authority as well as by encouraging user involvement through office politics.

When government departments/agencies have a highly transparent performance policy, tyrannical leaders have a greater tendency to implement EGS, but not when their performance transparency is low. Hence, once department/agency heads are put on the spot, they are more likely to invest in technological discontinuities to be impressed by bold and daring actions [30]. The higher government department/agency transparency in terms of visibility, the more favorably accepted will be the leader's tyrannical management style. This is because the interpretation of leader's oppressive action is more likely to be colored by intentional signals, transforming dictatorship into the dogged and resolute characteristics of a strong and capable leader. Although transparency does not always guarantee high performance in government, the exposure could trigger government with below average performances to long for external supports [10]. In such circumstance, tyrannical government department/agency heads may implement EGS more rapidly owing to them having plenty controllable resource on hand. Thus:

- P2: Tyrannical leadership positively moderates the relationship between transparency and timing of EGS implementation, such that transparency has a greater positive effect on timing of EGS implementation for government departments/agencies with more (vs. less) tyrannical tendencies of their leadership.

3.3 The Three Way Interaction Between Tyrannical Leadership, Transparency and Size of Department/Agency

In order to unpack the key mechanisms behind transparency and the timing of EGS implementation, this research explores in top management teams, namely their leaders' tyranny. The impact of transparency, however, is likely to depend on the size of the government department/agency. We hence expect that the return on transparency is more pronounced in certain conditions of size, than in others.

Organizational size has been shown to influence decisions, including the way information is processed [3, 17]. Organizations with varying levels of size may make quite different decisions, therefore, this research was further extended by predicting that the moderating role of tyrannical leadership in regard to the speed of EGS implementation will be influenced by how large the government department/agency is. The

government department/agency is determined by the number of employees. Since perceived risk differs across business sizes, the implementation of new technology is generally perceived as bringing greater risks for smaller firms since they operate in a highly competitive environment and are thus likely to suffer from financial constraints, lack of professional expertise, and are more likely to be adversely affected by varying managerial styles of CEOs [17].

It has already been demonstrated that tyrant managers are more likely to be daring or risk takers and these personal tendencies may lead to bold choices [14, 31]. As such, when they are in the spotlight, they tend to act like innovators by trying out their new ideas as soon as possible despite suffering from occasional early setbacks. Building on the work of Mishina et al. [39], this study suggests that, particularly in small businesses, even though a moderate to strong negative character of a tyrant manager will have a greater influence on their reputation, tyrannical leaders rely less on group norms in relation to widespread beliefs than on their own self-confidence in their ability to lead them on to pioneer or apply new IT systems.

In contrast, when organizations are large, they are not so strongly affected by their CEOs decision making as there are other stakeholders involved whose collective knowledge may be relied upon to drag down the adoption time [11]. Consequently, this study argues that a tyrannical leadership is more likely to influence the relationship between transparency and EGS implementation timing when the government department/agency size is small rather than large. Therefore:

- P3: The moderating effect of tyrannical leadership on the relationship between transparency and timing of EGS implementation is stronger when the government department/agency size is small (versus large).

Figure 1 shows the conceptual framework including the research three propositions.

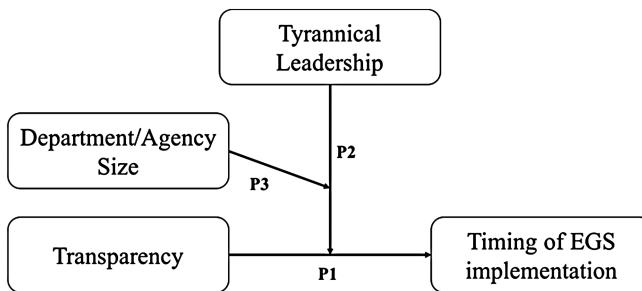


Fig. 1. Conceptual framework

4 Conclusion and Implications

This research theorizes that government departments/agencies with a higher level of performance transparency will be relatively quick in EGS implementation and explores how a tyrannical leader may sharpen such a relationship when the government department/agency size is small. This research complements existing knowledge about electronic government and contributes to the literature on signaling leadership in three important ways.

First, because signaling theory examines communication between individuals, there is room for it taking a new direction [40]; hence this research sheds light on the relationship between the signaled message, in this case performance transparency, and the sender, the leaders, which shows that the same form of transparent information from different degrees of tyrannical executives influences the timing of IT implementation. Second, although the results confirm that transparency affects organizational IT implementation [3, 24, 25], when looking at both the timing of implementation and executives' leadership, we also theorize an additional affect that consists of variance. Third, the link between organizational size and IT service implementation remains mixed. Many studies have reported that small size organizations are vulnerable to waiting for long-term value returns on their IT investments, whereas some claimed that small size organizations are more flexible in their implementation of new IT systems. This research, however, has theorized the key role played by a tyrannical leader in formulating and consolidating an organizational decision to obtain a new IT system.

This research offers some critical practitioners in the IT industry for finding better ways to promote their services. For example, marketers eager to promote IT can specify target leader segments by classifying heads in relative order of their tyrannical tendencies together with the transparency levels of their departments/agencies. It would therefore make strategic sense for tyrant leaders who manage highly transparent departments/agencies to be targeted first in order for them to receive positive messages about their innovative IT products and also have information about them more widely disseminated around the industry.

By taking advantage of the interaction effects between a leaders' tyranny and organizational performance transparency, IT service providers' investments in new product development may result in more fruitful benefits in that their operating objectives are more likely to be met. Therefore, by proposing and mounting a theoretical based research model backed up with an extensive literature review, the current research uncovered the pitfalls that may befall those IT vendors using other studies' results. Enterprise IT providers then understand why and how they could prioritize government departments when introducing innovative IT systems.

References

1. Krishnan, S., Teo, T.S.H., Lymm, J.: Determinants of electronic participation and electronic government maturity: Insights from cross-country data. *Int. J. Inf. Manage.* **37**, 297–312 (2017)

2. Das, A., Singh, H., Joseph, D.: A longitudinal study of e-government maturity. *Inf. Manag.* **54**(4), 415–426 (2016)
3. Sudhir, K., Talukdar, D.: The “peter pan syndrome” in emerging markets: the productivity-transparency trade-off in IT adoption. *Mark. Sci.* **34**, 500–521 (2015)
4. Kang, J., Hustvedt, G.: Building trust between consumers and corporations: the role of consumer perceptions of transparency and social responsibility. *J. Bus. Ethics* **125**, 253–265 (2014); Park, C.W., MacInnis, D., Eisingerich, A.B.: *Brand Admiration: Building a Business People Love*. Wiley, New Jersey (2016)
5. Cannon, J.P., Perreault Jr., W.D.: Buyer-seller relationships in business markets. *J. Mark. Res.* **36**, 439–460 (1999); Ren, S., Tsai, H.T., Eisingerich, A.B.: Case-based asymmetric modeling of firms with high versus low outcomes in implementing changes in direction. *J. Bus. Res.* **69**, 500–507 (2016)
6. Hung, H., Wong, Y.: Information transparency and digital privacy protection: are they mutually exclusive in the provision of e-services? *J. Serv. Mark.* **23**, 154–164 (2009)
7. Liu, Y., Eisingerich, A.B., Auh, S., Merlo, O., Chun, H.E.H.: Service firm performance transparency how, when, and why does it pay off? *J. Serv. Res.* **18**(4), 1–17 (2015); Eisingerich, A.B., Bell, S.J.: Perceived service quality and customer trust: does enhancing customers’ service knowledge matter? *J. Serv. Res.* **10**, 256–268 (2008)
8. O’Toole, J., Bennis, W.: A culture of candor. *Harvard Bus. Rev.* **87**, 54–61 (2009)
9. Pieterse, W., Ebbers, W.: The use of service channels by citizens in the Netherlands: implications for multi-channel management. *Int. Rev. Admin. Sci.* **74**, 95–110 (2008); Eisingerich, A.B., Chun, H., Liu, Y., Jia, H., Bell, S.J.: Why recommend a brand face-to-face but not on Facebook? How word-of-mouth on online social sites differs from traditional word-of-mouth. *J. Consum. Psychol.* **25**, 120–128 (2015)
10. Brito, J., Perraut, D.: Transparency and performance in government. *NCJL Tech. On.* **11**, 161–259 (2010)
11. Ciganek, A.P., Haseman, W., Ramamurthy, K.: Time to decision: the drivers of innovation adoption decisions. *Enterp. Inf. Syst.* **8**, 279–308 (2014)
12. Krafczy, N.D., Hack, A., Kellermanns, F.W.: What makes a family firm innovative? CEO risk taking propensity and the organizational context of family firms. *J. Prod. Innov. Manag.* **32**, 334–348 (2015)
13. Hambrick, D.C., Mason, P.A.: Upper echelons: the organization as a reflection of its top managers. *Acad. Manag. Rev.* **9**, 193–206 (1984)
14. Chatterjee, A., Hambrick, D.C.: It’s all about me: narcissistic chief executive officers and their effects on company strategy and performance. *Adm. Sci. Q.* **52**, 351–386 (2007)
15. Dwivedi, Y.K., Papazafeiropoulou, A., Chuang, T.-T., Nakatani, K., Zhou, D.: An exploratory study of the extent of information technology adoption in SMEs: an application of upper echelon theory. *J. Enterp. Inf. Manag.* **22**, 183–196 (2009)
16. Schlender, B.: All you need is love, \$50 billion, and killer software code-named longhorn. *Fortune* **146**, 56–58 (2002)
17. Thong, J.Y., Yap, C.-S.: CEO characteristics, organizational characteristics and information technology adoption in small businesses. *Omega* **23**, 429–442 (1995)
18. Henkel, J., Schöberl, S., Alexy, O.: The emergence of openness: how and why firms adopt selective revealing in open innovation. *Res. Policy* **43**, 879–890 (2014)
19. Laursen, K., Salter, A.J.: The paradox of openness: appropriability, external search and collaboration. *Res. Policy* **43**, 867–878 (2014)
20. Simeth, M., Raffo, J.D.: What makes companies pursue an open science strategy? *Res. Policy* **42**, 1531–1543 (2013)

21. Cox, A.D., Cox, D., Mantel, S.P.: Consumer response to drug risk information: the role of positive affect. *J. Mark.* **74**, 31–44 (2010); Park, C.W., Eisingerich, A.B., Park, J.W.: Attachment-aversion (AA) model of customer-brand relationships. *J. Consum. Psychol.* **23**, 229–248 (2013)
22. Howlett, E.A., Burton, S., Bates, K., Huggins, K.: Coming to a restaurant near you? Potential consumer responses to nutrition information disclosure on menus. *J. Consum. Res.* **36**, 494–503 (2009)
23. Granados, N., Gupta, A., Kauffman, R.J.: The impact of IT on market information and transparency: a unified theoretical framework. *J. Assoc. Inf. Syst.* **7**, 7 (2006)
24. Granados, N., Gupta, A., Kauffman, R.J.: Designing online selling mechanisms: transparency levels and prices. *Decis. Support Syst.* **45**, 729–745 (2008)
25. Granados, N., Gupta, A., Kauffman, R.J.: Information transparency in business-to-consumer markets: concepts, framework, and research agenda. *Inf. Syst. Res.* **21**, 207–226 (2010)
26. Zhu, K.: Information transparency of business-to-business electronic markets: a game-theoretic analysis. *Manage. Sci.* **50**, 670–685 (2004)
27. Kirmani, A., Rao, A.R.: No pain, no gain: a critical review of the literature on signaling unobservable product quality. *J. Mark.* **64**, 66–79 (2000)
28. Rao, A.R., Qu, L., Ruekert, R.W.: Signaling unobservable product quality through a brand ally. *J. Mark. Res.* **36**(2), 258–268 (1999)
29. Hayward, M.L., Hambrick, D.C.: Explaining the premiums paid for large acquisitions: evidence of CEO hubris. *Adm. Sci. Q.* **42**, 103–127 (1997)
30. Gerstner, W.-C., König, A., Enders, A., Hambrick, D.C.: CEO narcissism, audience engagement, and organizational adoption of technological discontinuities. *Adm. Sci. Q.* **58**, 257–291 (2013)
31. Burke, R.J., Cooper, C.L.: *Risky Business: Psychological, Physical and Financial Costs of High Risk Behavior in Organizations*. Gower Publishing, Ltd., Farnham (2010)
32. Ma, H., Karri, R., Chittipeddi, K.: The paradox of managerial tyranny. *Bus. Horiz.* **47**, 33–40 (2004)
33. Ashforth, B.: Petty tyranny in organizations. *Hum. Relat.* **47**, 755–778 (1994)
34. Tepper, B.J.: Consequences of abusive supervision. *Acad. Manag. J.* **43**, 178–190 (2000)
35. Skogstad, A.: Effects of leadership behaviour on job satisfaction, health and efficiency. Department of Psychosocial Science, University of Bergen, Norway (1997)
36. Dub, L., Par, G.: Rigor in information systems positivist case research: current practices, trends, and recommendations. *MIS Q.* **27**, 597–636 (2003)
37. Markus, M.L.: Power, politics, and MIS implementation. *Commun. ACM* **26**, 430–444 (1983)
38. Romm, C.T., Pliskin, N.: The office tyrant-social control through e-mail. *Inf. Technol. People* **12**, 27–43 (1999)
39. Mishina, Y., Block, E.S., Mannor, M.J.: The path dependence of organizational reputation: how social judgment influences assessments of capability and character. *Strateg. Manag. J.* **33**, 459–477 (2012)
40. Connelly, B.L., Certo, S.T., Ireland, R.D., Reutzel, C.R.: Signaling theory: a review and assessment. *J. Manag.* **37**, 39–67 (2011)

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