

Towards Conceptualizing Information Transparency and its Role in Internet Consumers' Concerns: A Literature Review

Research in Progress

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Abstract

In recent years, calls for a safer online shopping environment are growing louder. Empirical studies on consumers' expectations of ethical e-commerce practices have found that the top concerns among e-shoppers revolved around security of transactions, privacy protection of personal data, deception and reliability issues. Consumer generally desire richer and truthful information to make purchase decisions. By addressing the information needs of consumers, transparency presents itself as a promising concept for firms to leverage towards strategizing its role in ethical practices. This paper revisits the consumer-perceived ethical issues in e-commerce literature, presents the disclosure paradox faced by e-seller firms, reviews the various conceptualizations of transparency in multidisciplinary literature and suggests extending the transparency strategy to map to consumers' informational needs and concerns.

Keywords

Information transparency, B2C, online shopping, consumers' concerns

INTRODUCTION

Many of today's concerns regarding online shopping revolve around information, be it inadequate, ambiguous or untrue information. The information asymmetry experienced by consumers has traditionally obstructed them from obtaining complete, clear and verifiable information they wanted in making purchase decisions. In the market of business-to-consumer (B2C) exchange, sellers have the liberty of revealing or concealing information to their advantage. The phenomenon of undesirable information practices in the form of information concealment, equivocation and falsification has become more prevalent and are reflected in the growing concerns of consumers (Xiao and Benbasat 2011). Besides product misrepresentation being the most common example of information malpractices (Pavlou and Gefen 2005), insufficient information disclosure of refund/return policies, cancellation terms and conditions as well as misuse of personal and financial information are not unheard of (Xiao and Benbasat 2011). Turning the tables around, firms could consider leveraging information transparency strategy, that is, the selective information disclosure enabled by advanced information and communication technologies (ICTs), to compete strategically in volatile e-markets (Granados and Gupta 2013).

Research on B2C transparency strategy has however been relatively scarce (Granados et al. 2010). Studies responding to consumer issues in e-commerce are fragmented and tend to view these concerns in a 'piecemeal fashion' (Palmer 2005, p. 271). The aim of this paper is to examine the relevance of information transparency in relation to consumer concerns in the B2C e-commerce context, that is, where merchants sell a product or service to end consumers (Ranganathan and Ganapathy 2002). In this paper, the key question addressed is: How does information transparency help e-businesses to address consumer concerns about online shopping?

The rest of this paper is organized as follows. First, we begin with an understanding of how consumers' expectations of e-shopping shape e-businesses' information disclosure. Next, we explicate the concept of transparency gathered from prior literature in various disciplines of study, such as IT, marketing, ethics, corporate

social responsibility, corporate governance and finance. We conclude this paper by pointing out some limitations in the study.

CONSUMERS' PERCEPTIONS AND EXPECTATIONS ON E-COMMERCE ETHICS

Empirical studies that investigated consumers' perceptions of e-commerce ethics have found the key ethical concerns were primarily related to security of transactions, invasion of personal privacy, reliability, and fraud in terms of honesty, or truthfulness of information, purposeful misrepresentation and non-delivery of goods (Ahuja et al. 2003; Bush et al. 2000; Miyazaki and Fernandez 2001; Román 2007; Román and Cuestas 2008; Stead and Gilbert 2001). Bush et al. (2000) surveyed marketing executives in the U.S. and found that they perceived the security of transactions, illegal activities (such as fraud, hacking etc.), honesty and truthfulness as unethical issues in e-marketing. Miyazaki and Fernandez (2000) investigated online retailers' disclosures of security and privacy policies on their corporate websites and reported that the number of privacy statements posted on websites is positively related to consumers' purchase intention. In a separate study, they found privacy, system security and online retailer fraud represented the most significant ethical factors (Miyazaki and Fernandez 2001). Stead and Gilbert (2001) identified key ethical issues that emerged from the growth of e-commerce as privacy and security. Ahuja et al. (2003)'s study reiterated security and privacy as the biggest barriers to online shopping. Kracher and Corritore (2004) argued that the issues in e-commerce ethics, such as access, privacy and informed consent, security of information, trust and intellectual property, are not new, as they exist in brick-and-mortar businesses too.

Román (2007) developed and tested a scale (the Consumers Perception on the Ethics of Online Retailers, CPEOR), which found security, privacy, non-deception and reliability as strong predictors of consumer trust and satisfaction. Security and reliability appears to be the more important ethical factors in Román and Cuestas (2008)'s sample of online purchasers in Spain. A subsequent study that validated the CPEOR scale in Turkey however found that most ethical problems in online retailing activities were related to reliability (Nardal and Sahin 2011). Focusing on the e-transaction process, Cheng et al. (2014) reported that consumer-perceived ethics was influenced by sales behaviour, security, privacy, fulfilment and service recovery.

Mason (1986)'s classic model of information ethics suggested four major ethical issues that arose during the Information Age back in the 1980s, namely privacy, accuracy, property and accessibility (acronym: PAPA). He argued that intellectual property, which is built on information, is impaired when personal information is lost, when one is being excluded from accessing valuable information, or when intimate information is revealed. Inspired by Mason (1986), a recent work by McBride (2014) proposed six major issues in information ethics, represented by the mnemonic ACTIVE, that is, autonomy, community, transparency, identity, value and empathy. Of particular interest to this paper, transparency, as he suggests, is essential in information ethics as it pertains to the clarity in the derivation and use of information within the information system (McBride 2014).

Consumers' expectation of ethical selling behaviour, is perhaps best represented by Roman and Munuera (2005, p.474)'s definition, as the "fair and honest actions that .. foster long-term relationships with customers based on customer satisfaction and trust". Examples of ethical sales behaviour includes selling products that meet consumers' needs, providing true information about products and using non-high pressure selling techniques (Román and Munuera 2005).

One aspect of consumer-perceived ethics of online sellers is how they manage and use information. Consumers expect firms that collect, handle and store customers' personal and financial information, for example, personal details and credit card numbers (Román 2007), to act as information custodian, that is, one who protects their details from being hacked by implementing robust information systems in which data is stored, and one who does not share their details with third parties without their prior consent. On the other hand, as an information provider, sellers are expected to give attention to consumers' concerns about deceptive practices, fraud and reliability issues that arise out of incomplete or inaccurate information pertaining to the sellers' products or services.

Taken together, we present the expectations of consumers and practices of online retailers on how they conceal or reveal information as a matrix in Figure 1. Concealing and safeguarding consumers' information, that is, assuming the role of information custodian, is desirable while revealing is obviously not. On the other hand, consumers generally prefer sellers, acting as information providers, to reveal more realistic information on the characteristics and benefits of their products (Román and Cuestas 2008). However it is to the sellers' competitive advantage to conceal some aspects of their products or services, be it product features, quality or pricing details. As for revealing personal information about consumers, it remains a major ethical concern when the practice of some e-commerce websites sharing or selling customers' data for a profit is exposed.

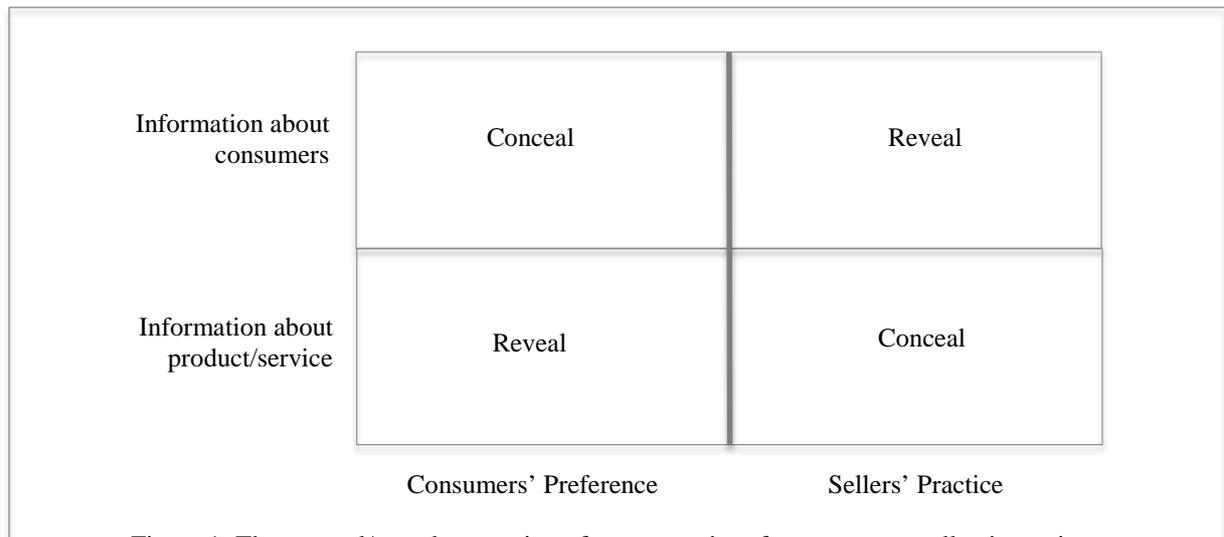


Figure 1: The conceal/reveal contention of consumers' preference versus sellers' practice

Regarding sellers' practice, the American Marketing Association (AMA) recommends the marketing community to adopt a set of ethical values, one of which is transparency. In its statement of ethics, marketing practitioners are encouraged to strive towards transparency in their disclosure of list prices and adjustments, clear communication, and explanation of product risks to "create a spirit of openness" (2014). We move on to review what literature has to say about the concept of transparency.

Literature on transparency was reviewed using the methodological approach described as follows. First we began by searching the Information Systems (IS) literature. Using the SCOPUS database, a keyword search for 'transparency' in the top IS journals, namely *MIS Quarterly*, *Journal of Management Information System*, *Information System Journal*, *Information System Research*, *Journal of Association of Information System*, *European Journal of Information System*, *Journal of Information Technology* and *Journal of Strategic Information System* was carried out. As transparency has appeared in multidisciplinary subjects, a subsequent search was extended to all other sources. Of particular interest is the social science literature especially business and marketing topics. Search results were analyzed for relevance to transparency, specifically papers that described conceptualizations, meanings, dimensions, and so on. Next, we present our interpretations.

Transparency

Transparency has been examined in multiple disciplines ranging from corporate governance, financial accounting, marketing, corporate social responsibility, ethics, IT, leadership and so on. Such a wide conceptualization of perspectives on transparency has led to it being associated with negative connotations, for example, "messy" (Albu and Flyverbom 2013, p. 2), "fuzzy" (Cappelli et al. 2013), "volatile and imprecise" (Williams 2005, p. 359). A recent review of organization transparency by Albu and Flyverbom (2013) points to a concept that embodies "a dynamic, performative and paradoxical phenomenon" (p.1). Cappelli et al. (2013, p. 2)'s conceptualization viewed transparency as "a network of qualities" that helps the organization to achieve it. Our review adopts a different lens set against an ethical backdrop that forms the justification for transparency. We offer the following facets that are most apparent in the literature examined: transparency as an action; transparency as an instrument; transparency as a communication process, transparency as an outcome, and lastly transparency as a quality.

Transparency as an Action

Transparency on the part of organizations involves the act of granting access or making information available. In e-market literature, market transparency refers to the extent that sellers make information such as pricing, product and supplier details, available to other market participants (Granados et al. 2006). Similarly Zhu (2004) viewed transparency in a B2B e-marketplace as making information visible and accessible in the exchanges between consumers and sellers, suppliers and buyers and among competitors. The information management discipline described transparency as in making information visible by means of removing or minimizing obstacles to visibility (Turilli and Floridi 2009). In studies regarding online privacy, transparency is associated with a firm's control in giving consumers access to the information it collected about them and keeping them in the know of its usage (Awad and Krishnan 2006). In corporate governance literature, transparency is about making information available regarding the corporation's governance policies, financial standing, performance and ownership to

investors, shareholders and stakeholders, and is considered central to its effective management (Bandsuch et al. 2008).

Transparency as a Communication Process

Transparency, conceived as a communication process occurs when there is information flow, typically bidirectional information exchange. This conception of transparency can be commonly found in corporate accountability research targeted at financial and social reporting (Hess 2007). Such forms of standardized reporting by means of information publishing and disclosure was labeled as ‘static’ or unidirectional and was recently critiqued as being limited to specific types of information that the organization wishes to publicize at their discretion (Vaccaro and Madsen 2006). Classifying the mere dissemination of content as transparency would pose as an oversimplification, as transparency should rightly evolve from discourses that produce organizational realities reflected in the business practitioner community, argued Albu and Flyverbom (2013). In corporate social responsibility practices, the communication in transparency takes the form of stakeholder dialogues and engagement where information shared during dialogues are analyzed to gain an understanding of stakeholders’ expectations on firms’ responsibility (Lazarus and McManus 2006; Unerman and Bennett 2004). In marketing studies, the emphasis is on information that is not usually shared (Hultman and Axelsson 2007), including sensitive knowledge between firms and their suppliers in supply chain networks (Lamming et al. 2006). This two-way sharing is characterized by an “uncorrupted exchange” (Lamming et al. 2006, p. 208) of “free flow” (Lazarus and McManus 2006, p. 924) knowledge between the buyer-supplier dyad, thereby indicating the presence of a rich inter-organizational relationship.

Transparency as an Instrument

Transparency as an instrumental means is used for financial regulation compliance (Lazarus and McManus 2006), for creating accountability (Albu and Flyverbom 2013), for generating trust (Kanagaretnam et al. 2010), and for creating competitive advantage through customer relationships and product innovation (Lazarus and McManus 2006). The public policy field employs transparency as a policy instrument to resolve controversial social issues about health, safety, corruption, civil rights and public services (Vaccaro and Madsen 2009).

Transparency as an Outcome

Transparency can be viewed as both a ‘means’ and an ‘end’ in organization management. Transparency described as an ‘end’ implies a perceived outcome of truth, trustworthiness and rationality by stakeholders, resulting in a trustworthy reputation and corporate brand for the firm (Lazarus and McManus 2006). In the research on information systems as an enabler of business growth, transparency is regarded as both an outcome of the exchange process between two or more parties and an outcome of communication behaviours (Street and Meister 2004). As an outcome of organizational changes, transparency is a resultant state characterized by clarity (Albu and Flyverbom 2013; Bandsuch et al. 2008; Hultman and Axelsson 2007), visibility of information (Turilli and Floridi 2009; Zhu 2004), openness (Lazarus and McManus 2006) and honesty (Bandsuch et al. 2008). Using the metaphor of light, Lamming et al. (2006’s definition of the degree of transparency as the amount of light that can pass through, is one that aptly illustrates the notions of clarity and visibility as intrinsic properties of transparency. The importance of clarity is most significant in corporate social responsibility communications where the provision of clear information by organizations is necessary for the ‘moral judgment’ of their activities (Stoll 2010). Visibility, in the information system context, measures the extent to which software, processes and information are revealed by the system and in turn replicable by a competitor (Grover and Kohli 2013).

Transparency as a Quality

The notion of quality in transparency is associated with setting standards to facilitate subsequent evaluation and measurement. In developing a transparency maturity model that attempts to measure the transparency level of organization practices, Cappelli et al. (2013) posited transparency as a relationship network of qualities. At the top level, qualities contributing positively to transparency are accessibility, usability, understandability, informativeness and auditability. Each of these qualities is in turn “helped” by other qualities to strengthen the degree of transparency. Take for instance, accessibility is supported by availability, portability and publicity. Usability depends on uniformity, simplicity, operability, performability, adaptability, user-friendliness and intuitiveness. Understandability is made up of other qualities such as conciseness, composability, decomposability, extensibility and dependability. Informativeness is reinforced by consistency, integrity, accuracy, completeness, clarity, comparable, correctness and current. Auditability is built up based on validity, controllability, verifiability, traceability and accountability. All in all, transparency is supported by 33 qualities and having each quality being ‘satisfied’ is sufficient to contribute to transparency, argued Cappelli et al. (2013).

THE ROLE OF TRANSPARENCY IN RELATION TO CONSUMER CONCERNS

Transparency is the new ethical virtue of organizations, proclaimed Tapscott and Ticoll (2003). Turilli and Floridi (2009) clarified that transparency is not an ethical principle but a pro-ethical condition that could enable ethicality through two ways - firstly, information disclosure that reveals ethical principles underlying the organization's decisions, such as accountability, safety, welfare and informed consent dependence; secondly, regulation of information flow, that is the description of how information is constrained in support of privacy, anonymity and copyright.

Two perspectives on transparency are prevalent in recent years' research – static and dynamic. While both perspectives could possibly address ethical pressures, the difference lies in the management of the information disclosure process (das Neves and Vaccaro 2013) and the extent of satisfying the informational needs of today's well-educated consumers. Static transparency, especially in accounting, business ethics and corporate social responsibility literatures, is often a means to address stakeholders' information requests through information disclosure of an organization's activities using standardized reports and financial statements (Vaccaro and Madsen 2009). Dynamic transparency, enabled by ICT, involves interaction and cooperation between firms and stakeholders in information sharing. The development and operationalization of dynamic transparency can be carried out in three ways, suggested Vaccaro and Madsen (2009). First, customized information for the individual stakeholder can be prepared to ensure that the requestors can easily understand the informational contents and that their needs are met. Second, bidirectional information sharing in an infomediary marketplace facilitates stakeholders' concerns to be readily addressed. Third, organizations could accumulate knowledge and experience learnt from the implementation of the earlier two steps to improve transparency and social accountability in their business practices.

In this paper, we view the informational aspects of consumers' demands through the lens of transparency and its ethical roots. We further argue for the potential of dynamic transparency in addressing consumers' ethical demands for qualities of non-deception and reliability in online selling.

Transparency Deepens Trust

Transparency and trust are intricately related, so much so that trust has become an important theme appearing in transparency studies (Hultman and Axelsson 2007). Practitioner literature suggests trust may be a consequence of transparency (Lazarus and McManus 2006). The common transparency-trust argument has construed transparency as a value-added quality that enhances a company's products (Elia 2009). The higher the degree of transparency, the more ethical an organization is perceived and hence the deeper the trust between a firm and its stakeholders (Vaccaro and Madsen 2009). Consumer trust is a driver of consumer's intention to purchase (Eggert and Helm 2003), and hence building trust is likely to contribute positively to sales profit and business growth (Elia 2009; Vaccaro and Madsen 2009). The economic benefits that trust brings about is often used as a convenient, although not necessary moral, argument to support the move towards transparency in organizations (Elia 2009). The problem of trust on the Internet is one that is primarily attributed to anonymity, lack of face-to-face interactions, unfamiliarity between buyers and sellers and the lack of repeated interaction (Rovie 2010). Trust is necessary in the proper functioning of the civil society as a whole so that people can live together, engage in social and economic exchanges (das Neves and Vaccaro 2013). To trust, according to Das and Teng (2004), is for the trusting party to bear the risk of the trusted party's failure to meet expectations. One way to mitigate online risk is via information transparency, which has shown to help to lower user risk belief (Dinev et al. 2013). Consumers generally felt they received insufficient information about products and services, and hence they preferred more information and details, not only on pricing and services, and on production processes and health impact as well (Tapscott and Ticoll 2003). The provision of appropriate information by organizations is seen as building trust with consumers and facilitating perceptions of reliability.

Transparency Advocates Truth

The implementation of information transparency requires that only semantic information, that is, "meaningful, veridical, comprehensible, accessible and useful" information can be disclosed (Turilli and Floridi 2009, p. 108). When information is complete and relevant during disclosure, only then may the truth surface. Truth, in the eyes of Thomas Aquinas according to das Neves and Vaccaro (2013), is essential for the preservation of human society and is therefore everybody's moral duty to declare the truth. The condition that necessitates this to happen is both completeness and relevance works in tandem to moderate the equilibrium between the two extremes of information opacity and information overload (das Neves and Vaccaro 2013). Information opacity occurs when information is not disclosed despite people having the right to know. Information overload, on the other extreme, happens when the information provided is more than required even though it may not prove to be useful and creates a cognitive burden on the receiver (Grover et al. 2006). In their metaphor using light as an

analogy to illustrate the degree of transparency in information sharing, Lamming et al. (2006) vividly describes overloading as 'dazzle' and opaqueness as a 'blackhole'. Delicately balancing between the two extremes of opacity and overload in information disclosure practices is truth (*veritas*), the virtue that is emphasized by Thomas Aquinas in his *Summa Theologiae* (das Neves and Vaccaro 2013). Information by itself is ethically neutral, but complete and relevant information promotes the emergence of truth, which is ethically right (das Neves and Vaccaro 2013). Information disclosure involving the virtue of truthfulness coupled with the motivation of a well-meaning purpose and goal is ethically desirable and should be used as a decision criterion, suggested das Neves and Vaccaro (2013). Seller organizations that enable consumers to gain truth via appropriate information disclosure processes in turn enhance consumers' perception of non-deception.

Transparency literature has been careful in highlighting that transparency however does not imply complete transparency all the time. The decision-maker is assumed to be a rational, prudent agent who holds the power to deliberate the appropriateness of disclosure within the context in which transparency-related issues exist (das Neves and Vaccaro 2013). Here we are drawn to the impracticality of complete transparency (Madsen 2009).

Transparency Informs the Right to Know

In the context of corporate accountability, transparency is referred to as stakeholders' "right to know" (Hess 2007, p. 455), that is, the right of stakeholders to get information on matters that may affect their interests (Tapscott and Ticoll 2003). Transparency emphasizes organizations "moral duty" (Vaccaro and Sison 2011) to stakeholders in addressing their rights to know. The right to know is one of the basic informational liberty espoused by John Rawls (1971) in which everyone, both individuals and firms, have equal entitlement to know the impact of a sellers' activities on them (Vaccaro and Madsen 2009). Rawl's principle of justice provides support for the request of information by stakeholders on the firm's actions and consequences affecting their lives. Transparency, however is not lopsided and serves only the interests of stakeholders. An instrumental moral rights to know, argued Elia (2009), provides a reasonable balance of organization and stakeholders' interests such that neither is over-emphasized at the expense of another.

Transparency Leads to Making Informed and Responsible Decisions

Information asymmetry is a problem that is prevalent in capitalist markets where information control typically lies in the hands of the sellers. Dynamic transparency is often touted as a solution that reduces information asymmetry, promotes information equality, therefore enabling those who were previously informationally disadvantaged the opportunity to have the information needed to make informed decisions (Madsen 2009). From a Rawlsian justice perspective, transparency encourages information disclosure to empower consumers to make conscious and responsible choices (Vaccaro and Madsen 2009). Sellers in an effort to be more transparent, demonstrates their openness, outright and non-deceiving stance.

Transparency Preserves Autonomy

Transparency, in computer ethics literature that analyses modeling and simulation tools, relates to the access granted to users of these tools, so as to enable them to understand the algorithms used to derive forecasts and to assess its accuracy in modeling reality (Vaccaro and Madsen 2009). In this particular context, transparency preserves the autonomy of software users who would otherwise remain dependent on computer tools without the means of verifying the correctness of its output. Such autonomy is deemed crucial in determining accurate predictions that are subsequently used as input feeds into decision-making.

B2C TRANSPARENCY STRATEGY IN RELATION TO CONSUMERS' CONCERNS

Information transparency in B2C e-commerce, is conceptualized in the context of an organization's strategic decisions to conceal or reveal information through the use of transparency strategies (Granados et al. 2010). Transparency strategies offer firms an unprecedented flexibility to selectively disclose information to customers as well as other external parties, such as suppliers, competitors, government and local communities (Granados and Gupta 2013). Granados et al. (2010) describes four possible strategic actions of B2C transparency strategies as disclose, distort, bias or conceal. Disclosing information is defined as revealing information in full and making information available and easy to interpret. Distorting information results in information being "outdated, incomplete, inaccurate, or obfuscated" (Granados and Gupta 2013, p. 639). Bias is defined as "preferential display of information" (Granados and Gupta 2013, p. 639), in which preferential access to information for selected consumers could be detrimental to other consumers. Concealing is the action where no information is available and leads to situations of "full opacity" (Granados and Gupta 2013, p. 639).

We expand on Granados and Gupta (2013)'s idea to include a mapping to consumer concerns (see example in Table 1). Firstly, we select key constructs of consumer concerns identified in the earlier section, such as security,

privacy, fulfillment, service recovery and non-deception. Next, we derived the information elements for each of the constructs by selecting items from the scales developed by e-commerce ethics researchers e.g. Cheng et al. (2014; Román (2007)). Finally a firm can choose between any of the four strategic actions for each of the information element. The basis of such decision could rest with the objective of balancing the tradeoffs between the benefit of “attracting new customers with market information and the risk of losing information advantage to customers and competitors” (Granados et al. 2010, p. 208).

An example is illustrated in Table 1. The information elements shown in Table 1 are by no means exhaustive and the choices of strategic action are used for illustrative purposes. The firm in this example chooses to conceal personal details of its customers following its adoption of the data protection policy on the collection, use and disclosure of personal data. In some countries such as Australia, companies are subjected to data privacy laws such as the Privacy Amendment (Enhancing Privacy Protection) Act 2012. Details on the customer transactions with the firm, especially the customer’s credit card number and security code, are concealed. On pricing, the firm practises biasness by displaying regular prices of its products on its website while giving returning customers a discounted rate that is unpublished. Information on stock level is often distorted on this firm’s website and does not show the actual inventory level as it lacks real-time synchronization of its web front and backend warehouse. Customers are able to track the delivery status of their orders by logging into the website using their customer identification. In terms of response to customer complaints, the firm’s VIP customers are given priority attention although each customer’s feedback is dealt on a case-by-case basis. The firm openly discloses information related to product features, safety, quality, and return policy on its website.

Table 1. An Example of a Firms’ Transparency Strategy in Relation to Consumer Concerns

Consumer Concerns	Type of Information	Transparency Strategic Action			
		Disclose	Distort	Bias	Conceal
Privacy	• Personal details				X
Security	• Transaction data				X
Fulfilment	• Stock levels		X		
	• Pricing			X	
	• Order tracking	X			
Service Recovery	• Response to customer complaints			X	
Non-	• Return policy	X			
Deception	• Product features	X			
	• Product safety & quality	X			

CONCLUSION

The perils of online shopping are multi-faceted and the solution to consumer concerns is neither simple nor a one-size-fits-all. We do not propose information transparency as a panacea (Welch and Rotberg 2006) but addressing the information needs of consumers through transparency, a pro-ethical concept as claimed by Turilli and Floridi (2009), may bring us a step closer to enabling ethical e-commerce practices. Nevertheless information transparency is not always attractive to online retailers (Dewan et al. 2007). Higher transparency leads to more competitive prices and may even drive down prices to the level of zero profit, that is, retailers may be forced to sell at cost (Clemons 2010; Schultz 2009). As consumers become more informed due to transparency on product offerings, they may be less willing to compromise for alternatives in place of what they want (Clemons 2010). By exposing stock levels, opportunistic competitors may reap benefits by adjusting prices dynamically using web scraping technology (Dewan et al. 2007). Sellers who wish to avoid high price transparency in order to be successful may get caught in the catch-22 situation as buyers prefer high transparency and low prices (Soh et al. 2006).

We have presented the conceal/reveal contention faced by online sellers in their disclosure practices as they manage information, both originating from the firm and from consumers. Using an interdisciplinary approach, we had also summarized the different interpretations of the transparency concept. Finally we suggest an extension of Granados and Gupta (2013)’s transparency strategy by mapping to consumers’ informational concerns.

One limitation of this paper is the possibility of overlooking worthy articles due to the voluminous literature on transparency. It is our intention to target our focus on e-commerce and hence the deliberate avoidance of going deep into other disciplines. This work represents a conceptual design and further research will aim to delve into the transparency practices of the e-business community. Future research should extend the current understanding and knowledge in this area and leverage the acquired knowledge in this project to provide a guide for B2C practitioners in implementing transparency strategy.

REFERENCES

2014. "American Marketing Association: Statement of Ethics." Retrieved 5 August, 2014, from <https://archive.ama.org/Archive/AboutAMA/Pages/Statement%20of%20Ethics.aspx>
- Ahuja, M. K., Gupta, B., and Ramanm, P. 2003. "An Empirical Investigation of Online Consumer Purchasing Behavior," *Communication of the ACM* (46:12), pp. 145-151.
- Albu, O. B., and Flyverbom, M. 2013. "Categories and Dimensions of Organizational Transparency," in: *3rd Global Conference on Transparency Research*. HEC Paris.
- Awad, N. F., and Krishnan, M. S. 2006. "The Personalization Privacy Paradox: An Empirical Evaluation of Information Transparency and the Willingness to Be Profiled Online for Personalization," *MIS Quarterly* (30:1), pp. 13-28.
- Bandsuch, M., Pate, L., and Thies, J. 2008. "Rebuilding Stakeholder Trust in Business: An Examination of Principle-Centered Leadership and Organizational Transparency in Corporate Governance," *Business and Society Review* (113:1), pp. 99-127.
- Bush, V. D., Venable, B. T., and Bush, A. J. 2000. "Ethics and Marketing on the Internet: Practitioners' Perceptions of Societal, Industry and Company Concerns," *Journal of Business Ethics* (23:3), pp. 237-248.
- Cappelli, C., Engiel, P., Araujo, R. M., and Leite, J. C. S. P. 2013. "Managing Transparency Guided by a Maturity Model," in: *3rd Global Conference on Transparency Research*. HEC Paris.
- Cheng, H. F., Yang, M. H., Chen, K. Y., and Chen, H. L. 2014. "Measuring Perceived Ec Ethics Using a Transaction-Process-Based Approach: Scale Development and Validation," *Electronic Commerce Research and Applications* (13:1), pp. 1-12.
- Clemons, E. K. 2010. "The Power of Patterns and Pattern Recognition When Developing Information-Based Strategy," *Journal of Management Information Systems* (27:1), pp. 69-95.
- das Neves, J. C., and Vaccaro, A. 2013. "Corporate Transparency: A Perspective from Thomas Aquinas' Summa Theologiae," *Journal of Business Ethics* (113:4), pp. 639-648.
- Das, T. K., and Teng, B.-S. 2004. "The Risk-Based View of Trust: A Conceptual Framework," *Journal of Business and Psychology* (19:1), pp. 85-116.
- Dewan, R. M., Freimer, M. L., and Jiang, Y. 2007. "A Temporary Monopolist: Taking Advantage of Information Transparency on the Web," *Journal of Management Information Systems* (24:2), pp. 167-194.
- Dinev, T., Xu, H., Smith, J. H., and Hart, P. 2013. "Information Privacy and Correlates: An Empirical Attempt to Bridge and Distinguish Privacyrelated Concepts," *European Journal of Information Systems* (22:3), pp. 295-316.
- Eggert, A., and Helm, S. 2003. "Exploring the Impact of Relationship Transparency on Business Relationships," *Industrial Marketing Management* (32:2), pp. 101-108.
- Elia, J. 2009. "Transparency Rights, Technology, and Trust," *Ethics and Information Technology* (11:2), pp. 145-153.
- Granados, N., and Gupta, A. 2013. "Transparency Strategy: Competing with Information in a Digital World," *MIS Quarterly* (37:2), pp. 637-641.
- Granados, N., Gupta, A., and Kauffman, R. 2006. "The Impact of It on Market Information and Transparency: A Unified Theoretical Framework," *Journal of the Association for Information Systems* (7:3), p. 1.
- Granados, N., Gupta, A., and Kauffman, R. 2010. "Information Transparency in Business-to-Consumer Markets: Concepts, Framework, and Research Agenda," *Information Systems Research* (21:2), pp. 207-226.
- Grover, V., and Kohli, R. 2013. "Revealing Your Hand: Caveats in Implementing Digital Business Strategy," *MIS Quarterly* (37:2), pp. 655-662.
- Grover, V., Lim, J., and Ayyagari, R. 2006. "The Dark Side of Information and Market Efficiency in E-Markets," *Decision Sciences* (37:3), pp. 297-324.
- Hess, D. 2007. "Social Reporting and New Governance Regulation: The Prospects of Achieving Corporate Accountability through Transparency," *Business Ethics Quarterly* (17:3), pp. 453-476.
- Hultman, J., and Axelsson, B. 2007. "Towards a Typology of Transparency for Marketing Management Research," *Industrial Marketing Management* (36:5), pp. 627-635.
- Kanagaretnam, K., Mestelman, S., Nainar, S. M. K., and Shehata, M. 2010. "Trust and Reciprocity with Transparency and Repeated Interactions," *Journal of Business Research* (63), pp. 241-247.

- Kracher, B., and Corritore, C. L. 2004. "Is There a Special E-Commerce Ethics?," *Business Ethics Quarterly* (14:1), pp. 71-94.
- Lamming, R., Caldwell, N., and Phillips, W. 2006. "A Conceptual Model of Value-Transparency in Supply," *European Management Journal* (24:2/3), pp. 206-213.
- Lazarus, H., and McManus, T. 2006. "Transparency Guru: An Interview with Tom Mcmanus," *Journal of Management Development* (25:10), pp. 923-936.
- Madsen, P. 2009. "Dynamic Transparency, Prudential Justice, and Corporate Transformation: Becoming Socially Responsible in the Internet Age," *Journal of Business Ethics* (90:S4), pp. 639-648.
- Mason, R. O. 1986. "Four Ethical Issues of the Information Age," *MIS Quarterly* (10:1), pp. 5-12.
- McBride, N. K. 2014. "Active Ethics: An Information Systems Ethics for the Internet Age," *Journal of Information, Communication and Ethics in Society* (12:1), pp. 21-44.
- Miyazaki, A. D., and Fernandez, A. 2000. "Internet Privacy and Security: An Examination of Online Retailer Disclosures," *Journal of Public Policy & Marketing* (19:1), pp. 54-61.
- Miyazaki, A. D., and Fernandez, A. 2001. "Consumer Perceptions of Privacy and Security Risks for Online Shopping," *The Journal of Consumer Affairs* (35), pp. 27-44.
- Nardal, S., and Sahin, A. 2011. "Ethical Issues in E-Commerce on the Basis of Online Retailing," *Journal of Social Sciences* (7:2), pp. 190-198.
- Palmer, D. E. 2005. "Pop-Ups, Cookies, and Spam: Toward a Deeper Analysis of the Ethical Significance of Internet Marketing Practices," *Journal of Business Ethics* (58:1), pp. 271-280.
- Pavlou, P. A., and Gefen, D. 2005. "Psychological Contract Violation in Online Marketplaces: Antecedents, Consequences, and Moderating Role," *Information Systems Research* (16:4), pp. 372-399.
- Ranganathan, C., and Ganapathy, S. 2002. "Key Dimensions of Business-to-Consumer Web Sites," *Information & Management* (39:6), pp. 457-465.
- Román, S. 2007. "The Ethics of Online Retailing: A Scale Development and Validation from the Consumers' Perspective," *Journal of Business Ethics* (72:2), pp. 131-148.
- Román, S., and Cuestas, P. J. 2008. "The Perceptions of Consumers Regarding Online Retailers' Ethics and Their Relationship with Consumers' General Internet Expertise and Word of Mouth: A Preliminary Analysis," *Journal of Business Ethics* (83:4), pp. 641-656.
- Román, S., and Munuera, J. L. 2005. "Determinants and Consequences of Ethical Behaviour: An Empirical Study of Salespeople," *European Journal of Marketing* (39:5-6), pp. 473-495.
- Rovie, E. M. 2010. "The Anonymity of the Internet: A Problem for E-Commerce and a "Modified" Hobbesian Solution," in *Ethical Issues in E-Business: Models and Frameworks*, D.E. Palmer (ed.). Hershey, New York: Business Science Reference.
- Schultz, C. 2009. "Transparency and Product Variety," *Economics Letters* (102), pp. 165-168.
- Soh, C., Markus, M. L., and Goh, K. H. 2006. "Electronic Marketplaces and Price Transparency: Strategy, Information Technology, and Success," *MIS Quarterly* (30:3), pp. 705-723.
- Stead, B. A., and Gilbert, J. 2001. "Ethical Issues in Electronic Commerce," *Journal of Business Ethics* (34), pp. 75-85.
- Stoll, M. L. 2010. "Moral Guidelines for Marketing Good Corporate Conduct Online," in *Ethical Issues in E-Business: Models and Frameworks*, D.E. Palmer (ed.). Hershey, New York: Business Science Reference.
- Street, C. T., and Meister, D. B. 2004. "Small Business Growth and Internal Transparency: The Role of Information Systems," *MIS Quarterly: Management Information Systems* (28:3), pp. 473-506.
- Tapscott, D., and Ticoll, D. 2003. *The Naked Corporation*. New York: Free Press.
- Turilli, M., and Floridi, L. 2009. "The Ethics of Information Transparency," *Ethics and Information Technology* (11:2), pp. 105-112.
- Unerman, J., and Bennett, M. 2004. "Increased Stakeholder Dialogue and the Internet: Towards Greater Corporate Accountability or Reinforcing Capitalist Hegemony?," *Accounting, Organizations and Society* (29:7), pp. 685-707.
- Vaccaro, A., and Madsen, P. 2006. "Firm Information Transparency: Ethical Questions in the Information Age," in: *IFIP International Federation for Information Processing*, J. Berleur, M.I. Nurminen and J. Impagliazzo (eds.). pp. 145-156.
- Vaccaro, A., and Madsen, P. 2009. "Corporate Dynamic Transparency: The New Ict-Driven Ethics?," *Ethics and Information Technology* (11:2), pp. 113-122.
- Vaccaro, A., and Sison, A. J. G. 2011. "Transparency in Business: The Perspective of Catholic Social Teaching and the "Caritas in Veritate"," *Journal of Business Ethics* (100:S1), pp. 17-27.
- Welch, T. C., and Rotberg, E. H. 2006. "Transparency: Panacea or Pandora's Box," *Journal of Management Development* (25:10), pp. 937-941.
- Williams, C. C. 2005. "Trust Diffusion: The Effect of Interpersonal Trust on Structure, Function, and Organizational Transparency," *Business and Society* (44:3), pp. 357-368.

Xiao, B., and Benbasat, I. 2011. "Product-Related Deception in E-Commerce: A Theoretical Perspective," *MIS Quarterly* (35:1), pp. 169-195.

Zhu, K. 2004. "Information Transparency of Business-to-Business Electronic Markets: A Game-Theoretic Analysis," *Management Science* (50:5), pp. 670-685.

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