

# From a Social Marketing Perspective: A Proposed Customer Relationship Management Technology Transfer Model

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## Abstract

Technology and knowledge transfer (TKT) is practiced for a plethora of causes, ranging from AIDS prevention to manufacturing competitiveness. The number of government, university, and association TKT efforts is exhausting and fraught with problems; we know anecdotally that the adoption of technology or knowledge is minimal across all contexts. There are a myriad of reasons as to why this phenomenon (i.e., minimal adoption of technology or knowledge) exists, and it is beyond our scope to elucidate on the causes of low-adoption; rather, our intent is to present a theory of TKT based on personalization.

Our personalized TKT model draws from economic, sociology, and social psychology theory constructs, which are couched in the customer relationship management concept. Specifically, we utilize transaction cost economics, social exchange theory, and the constructs of perceived risk and trust to develop a personalized TKT model. We believe that for TKT efforts to be successful, a customer-based approach should be employed rather than the traditional, top-down hierarchical method. One of our objectives is to create a salient “shortcut” in the

customer’s cognitive schema; whereby a relationship is formed and customers look to TKT providers first for knowledge and/or technology.

Finally, we introduce personalization as a construct. Personalization can be measured and, more importantly, implemented in many forms. For instance, it may include customizing materials, delivery methods, or both; one-to-one interactions including at intermediary sites; or transfer and subsequent adoption may be a function of visit frequency. Traditional TKT approaches are primarily top down (i.e., hierarchal); our premise is that personalizing TKT, a bottom-up market-driven (i.e., tailored) tactical approach, may ameliorate risk for risk-averse actors and augment trust among TKT providers and ultimately the adoption of technology, knowledge, or both. The ultimate value of personalization is beneficial because personalization can hasten adoption of TKT. Exploration of the impact of personalization also can help us to understand the mechanisms that affect the success of TKT and ultimately the adoption of technology or knowledge.

Keywords: Social marketing, trust, perceived risk, customer relationship marketing, and personalization.

## Introduction

Technology and knowledge transfer (TKT) is practiced for a plethora of causes, ranging from AIDS prevention to manufacturing competitiveness. The number of government, university, and association TKT efforts is exhausting and fraught with problems; we know anecdotally that the adoption of technology or knowledge is minimal across all contexts. The reality of TKT rarely lives up to expectations or perceptions of its potential,

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even when competitive emulation is not a serious threat (Galbraith 1990, Gupta et al. 2000, Ruggles 1998). There are a myriad of reasons as to why this phenomenon (i.e., minimal adoption of technology or knowledge) exists, and it is beyond our scope to elucidate the causes of low adoption.

Traditional views of innovation adoption focus on organizational demographics and innovation characteristics as being the primary predictors of adoption (Rogers 1995). Technology and knowledge transfer assets are fundamental sources of competitive advantage in open economies; consequently the long-term prosperity of firms operating in open economies is increasingly predicated on their ability to identify technology and knowledge assets and to properly exploit them before they are emulated by competitors (Argote and Ingram 2000, Eisenhardt and Martin 2000). Clearly, one goal of TKT is to foster competitiveness and sustainability.

Customer preferences can be revealed by fostering a learning relationship as personalization concentrates on providing services or products to one customer at a time by identifying and then satisfying their individual needs. Personalization then aspires to repeat this several times with each customer, so that enduring relationships are developed (Peppers and Rogers 1997). Taylor (1998) reported that a service-type relationship with customers has benefited many businesses. Hence, appreciation of the human component guides us from myopic actions, rather than perceiving of TKT as only an exchange from point “A” to point “B.” To be more precise, consider transfer as an interactive process with back-and-forth exchange between you and your customer for an extended period (Gibson and Smilor 1991).

## Social Marketing

Kotler and Zaltman (1971) originally defined social marketing (SM) as “...the design, implementation and control of programs calculated to influence the acceptability of social ideas and involving consideration of

product planning, pricing, communication, distribution and marketing research.” Another useful characterization is, “...the planning and implementation of programs *designed to bring about change* using concepts from traditional marketing” (Social Marketing Institute 2005). Shrum et al. 1994 operationalized the SM four-P’s as: **product**—what is being offered to the target consumer; **price**—the cost(s) of employing the technology; **promotion**—integrated communication using different strategies and channels to reach the target audience; and **place** (distribution) defined in two different manners, both of which are relevant to us: (1) the means to accomplish a given behavior (i.e., where the actor participates) and (2) providing adequate and compatible response channels for our customers. A proposed fifth-P also may be relevant: **positioning**, which “involves the location of the product relative to other products and activities with which it competes” (Alcalay and Bell 2000).

## Customer Relationship Management

The American Marketing Association (2005) defined customer relationship management (CRM) as seeking to create more meaningful one-on-one communications with the customer via customization (i.e., the tailoring of a product to the special and unique needs of the customer). However, this is rather ascetic; Gummesson (1998) proffered CRM as an association requiring a long-term view, one of mutual respect, and “...the acceptance of the customer as a partner and coproducer of value and not just a passive recipient...”. We agree with this conceptualization; as TKT providers we should strive to understand not only the characteristics of the customer, but of how the technology or knowledge “fits” and its potential “effects” on our customers.

With “fit” and “effect” in mind, our view also includes **transaction cost economics**, expenditures that determine transaction viability. Expenditures include the costs associated with intermediate governance structures (IGSs) (Parkhe 1993) such as alliances, the stability or

longevity of relationships, and commitment of the actors involved. The IGSs are used to form long-term relationships and include transaction-specific assets (TSAs)—assets that have little or minimal value outside of the exchange relationship (Williamson 1985). These assets include specialized training, experience, and with regards to personalized TKT, source credibility, predictability (i.e., consistency of relationship), dependability (i.e., is it in the client’s best interest?), and longevity (i.e., length of relationship). Actors invest in TSAs for three reasons: (1) efficiency and effectiveness, (2) to signal honorable intentions for the relationship, and (3) as a requirement of exchange (Brown et al. 2000).

**Social exchange theory** affords us the opportunity to expand TSAs and suggests that two discrete constructs are influential in understanding relationships among partners: (1) **Trust** between the partners has a positive impact on the long-term relationship, particularly when

environmental forces predicate changes and (2) **dependence** on a partner is important in influencing the longevity of the exchange relationship. Trust also has been found to affect the adoption of new technologies (Fukuyama 1995). We also believe that **perceived risk** must be recognized, as it is a driver of the antecedents of trust and trust also moderates some antecedents of perceived risk.

Trust (fig. 1) has several definitions. Here we use Moorman et al.’s (1992), “the willingness to rely on the exchange partner in whom one has confidence” and Dodgson’s (1993), “trust is one’s disposition, an expectation held by one partner about another that they will behave in an acceptable manner.” Zaltman and Moorman’s (1988) research indicated that personal trust is potentially the most vital behavioral factor affecting the use of knowledge. According to them, trust is important to knowledge utilization because it ameliorates

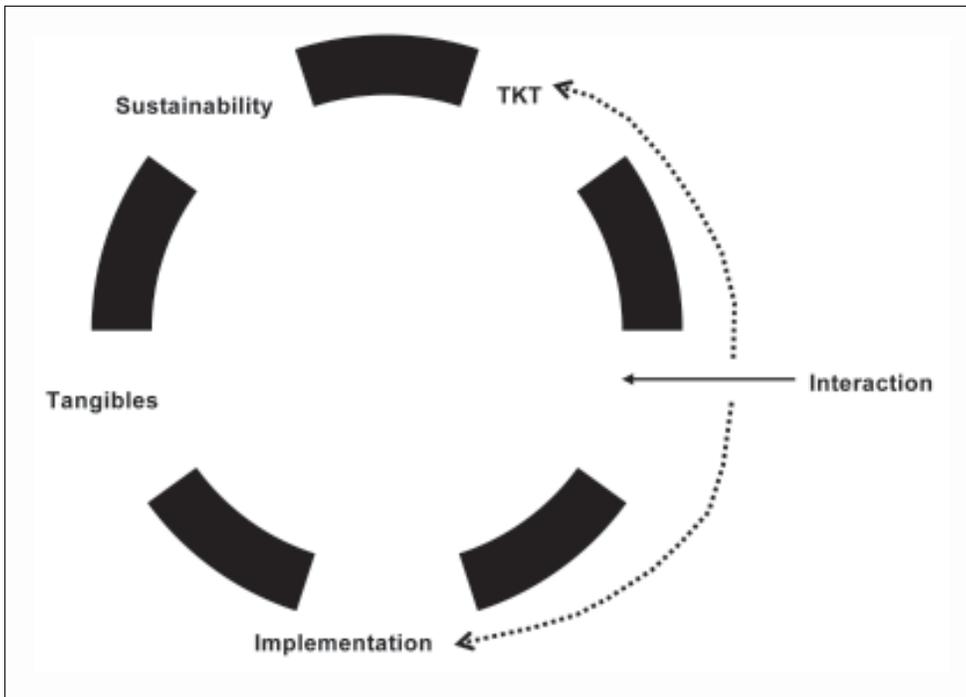


Figure 1—Customized customer relationship management—technology and knowledge transfer (TKT) Model.

perceived uncertainty and consequently perceived vulnerability. Ultimately, trust implies a willingness to accept vulnerability, with the expectation and confidence that an actor can rely on the other party. Trust can change over time, evolving through stages of development, augmentation, and decay (Fukuyama 1995, Rousseau et al. 1998). In our proposed model, antecedents (note that there can be additional antecedents) of trust include (1) source credibility—can include both the transfer source and TKT attributes and assets; however, our emphasis is on the source; (2) dependability—is it in the client’s best interest; is the transfer source dependable? (3) predictability—consistency of the relationship;

and (4) longevity—length of relationship; Will the TKT provider be there during the long haul?

Perceived risk (fig. 2) is typically defined in a consumer context as perceptions of uncertainty and the adverse consequences of buying a product or service (i.e., an implicit assumption is that the probability and outcome of the product purchase are uncertain) (Dowling and Staelin 1994). In a TKT context, this is transitive, where trust is defined as the “uncertainty and disadvantageous consequences of adopting a technology or knowledge.” In our model, perceived risk has four antecedents (again, note that there can be additional antecedents) that can result in desirable or undesirable

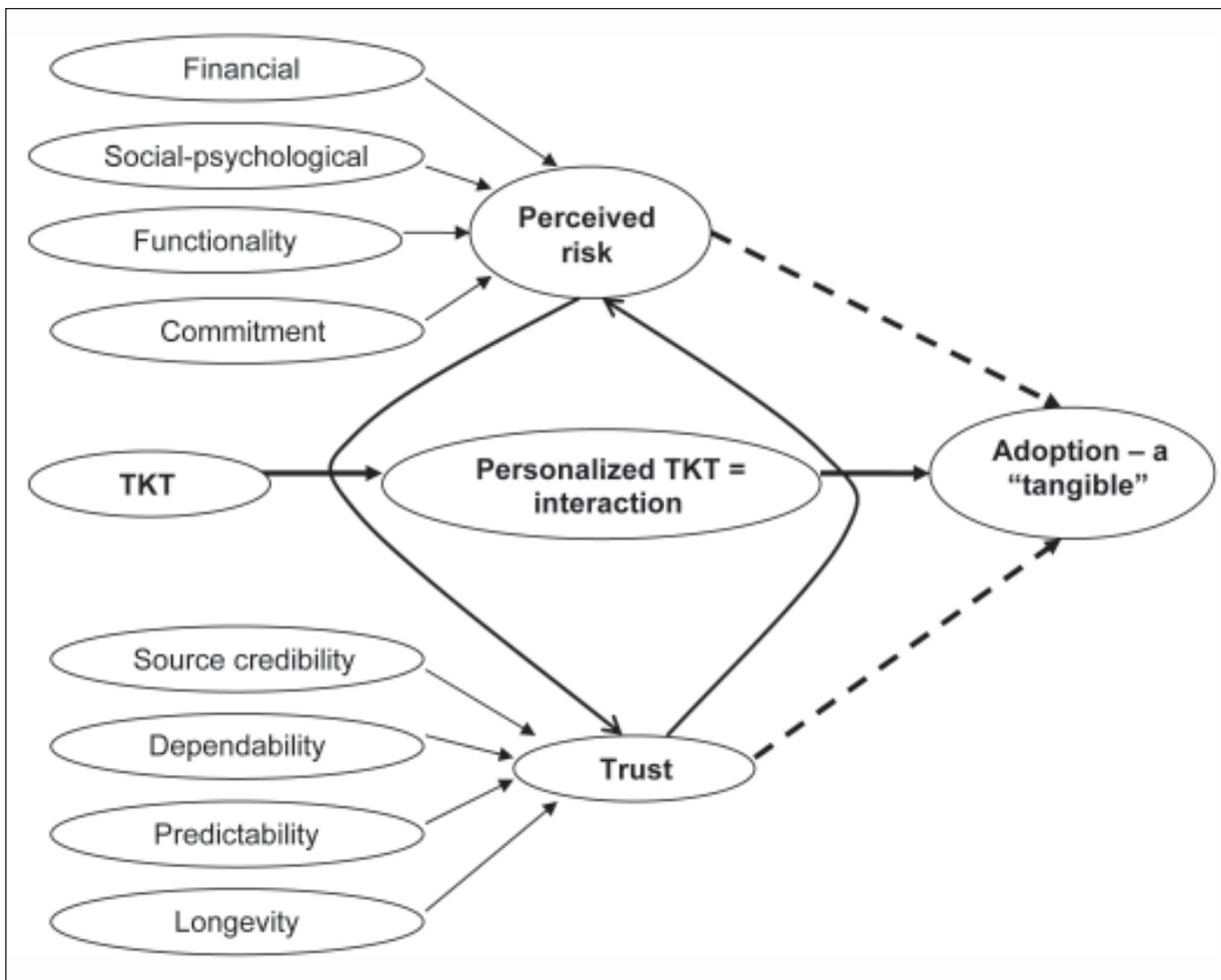


Figure 2—Personalized interaction-technology and knowledge transfer (TKT) constructs.

consequences for our customers: (1) **financial**—does the risk reward outweigh the actual costs or potential deleterious effects; (2) **social-psychological**—social norms, technology anxiety (substantial levels may lead to TKT avoidance), or need for interaction (substantial levels may decrease the need or the desire to try or learn) (Meuter et al. 2005); (3) **functionality**—is this TKT going to work? and (4) **commitment**—both personal and from the TKT provider. As TKT providers, we must recognize that the more revolutionary the technology, the greater the incumbent risks of TKT adoption.

Trust and perceived risk must be addressed if we are to improve exchange relationships and ultimately the adoption of technology or knowledge. Perceived risk may moderate and at the very least mediate trust. For example, the financial and functionality antecedents of perceived risk might directly influence trust (fig. 2). Specifically, increased (and most probably unacceptable) risk perceptions regarding financial costs and of perceived functionality (i.e., it will not work) might lead the customer to have low levels of trust for both the TKT and the transfer source. Conversely, a perception of overall trust in the TKT provider may possibly decrease the perceived risk of the TKT.

There are other factors that affect adoption; some were previously discussed and are not included in the following discourse. We present these for thought and as assessment items. First, TKT **innovation characteristics**: compatibility, relative advantage, complexity, observability, and trialability; secondly, **individual differences** in our customers: inertia (may limit efforts to learn) and previous experience (experienced users may be more likely to try), and customer demographics. Finally, **customer readiness** includes motivation (extrinsic—motivated by self-interests; intrinsic—trying new things or feelings of accomplishment) and ability (having necessary skills and confidence) (Meuter et al. 2005). An understanding of the actor's worldview affords us the opportunity to “position” TKT in order to maximize the perceived benefits and minimize the perceived costs.

## Personalization

Personalization or “markets of one” is the premise of our model. The personalization types of TKT developed for each customer “moderates” the TKT process, and by personal tailoring we envision trust levels increasing and perceived risks to be ameliorated. The TKT provider's value-added goals should include developing long-term relationships with our customer, customer satisfaction, and adoption of TKT by our customers at some level. This also will necessitate a behavioral change in us, the TKT provider, as it includes an implicit disposition that the customer is a copartner and a coproducer of value.

Personalization includes the following (and more): inquisitive and active listening personnel, the means and methods by which our customers acquire and use TKT, and accordingly, a personalization of the TKT delivery mechanism—making it unique for each individual consumer. At the crux of personalization is the nontrivial action employed to achieve personalization with our customers: **discerning** the consumer's preference for “who” delivers the TKT, what types of TKT they are interested in, and “how” they prefer for TKT to be delivered. Is TKT delivered via mail, personal interactions (in-house), webcasts, virtual simulations, site visits (in-place), or company representatives, etc.? Personalization, in the form of individually tailored marketing communications, should be more effective than mass communication efforts (Peppers and Rogers 1993).

At the core of personalization is genuine discourse with our customers to gain their input before, during, and after TKT delivery. Without their essential information and partnering, we believe that most forms of TKT will fail to be adopted, including personalization-based efforts. We are striving for an exchange model of communication, a heterarchical relationship, with an egalitarian connotation. That is, we do not speak with our customers as strangers; rather, we speak to our customers as with our close friends. In this manner, we are exchanging communication, we are exchanging information, and we are not

giving a lecture—a transmission model of exchange. While this appears to be intuitive, it is not. We must always be cognizant of the fact that transfer processes that work for one customer may not be applicable to others. The ultimate value of personalization is that it is beneficial because individual tailoring can hasten the adoption of TKT; exploring the impact of personalization also can help us understand the mechanisms that affect the adoption of TKT.

### Customer Relationship Management Implementation

The model is very simple (fig. 1); initially the TKT product is conceived by us or others and relationships are developed. The “interaction” phase is next, this is where our market research should be employed, as the personalization of the TKT process should afford us the knowledge and ability to successfully deliver the product to our customer. Next, is the implementation of the TKT by our client, which is a tangible TKT adoption. Finally, as this is envisioned as an iterative process, our continual interaction with our customers should result in a sustainable relationship with the customer—a “Win-Win” for all.

### Conclusion

Every customer and organization has its own goals and culture; there is not a single TKT or TKT process that will “fit” all occasions and customers. This knowledge “opens the door” for us to develop and improve TKT delivery methods. Our argument is that developing personalized TKT results in understanding our customers at the most critical and basic levels. We gain knowledge of their concerns and develop long-term relationships, which should, in turn, foster trust in us. Finally, our customers adopt TKT that allows them to successfully compete in open economies.

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