Not walls, windows: capturing value in the digital age

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Introduction

The Internet was supposed to change everything immediately, including industry competition and strategy. After many of its early stars fell from the sky, it appeared that the traditional strategy toolkit, containing frameworks like Porter’s five forces, remained intact and had been too quickly cast aside. Now, based on our study of many companies and industries and focusing on three companies that have survived and then thrived in the digital age (eBay, Lending Tree, and Charles Schwab), we argue for a middle perspective. The issues of value creation, capture, and preservation are still imperative, yet the defensive strategies designed to protect favorable positions on the value chain will fail in the digital age. It is now about adding windows to buyers, suppliers, competitors, substitutes, not building walls. Windows provide subtle protection from the competitive elements and allow in the best of the outside world – fresh air, sunlight, or a neighborly helping hand – each of which takes on greater significance in the quest to create, capture, and preserve value in the digital age.

Starting with the publication of Porter in 1980, the key questions of strategy were about value creation and preservation. Porter’s five forces framework addressed the attractiveness of an industry based on the power of buyers, suppliers, substitutes; the rivalry in the industry; and barriers to new entry. Other questions were also addressed: Who will capture the value created by the industry-firms, customers, suppliers, or competitors and in what proportion? How should firms compete in order to capture a higher portion of the industry’s profits or to protect and increase overall industry profitability?

Much of the attention in this work was about preservation – protecting the ability to create value. Strategy conversations often focused on “sustainable competitive advantage” (Ghemawat, 1986). Recognizing that industry rivals, new entrants, disruptive technologies, migrating customer tastes and a host of other factors might disrupt a firm’s comfortable niche, significant effort has been expended on defensive actions as firms build walls to fortify their positions against interlopers. This protectionism manifests itself in both position- and capabilities-based defenses. On the position front, firms look to isolate themselves by building economies of scale and scope that competitors cannot replicate, introducing high switching costs to quell.

“By walling their positions off from competitive threats, firms hope to enjoy sustainable profitability.”
customer migration, or erecting significant structural barriers that deter easy entry and exit from the game. Alternatively, firms also invest in unique, inimitable capabilities in attempts to differentiate themselves from rivals. By walling their positions off from competitive threats, firms hope to enjoy sustainable profitability.

Unfortunately, the advent of the digital age served to breach even the largest and most stable protective walls. Advances in digital technology made communication inexpensive, pervasive, and immediate. The result was a boon to value creation and the simultaneous demise of value capture (for new dot.com firms) and value preservation (for incumbent firms whose competitive situation changed radically). As strategist Michael Porter noted in discussing the effect of the Internet on strategy (Porter, 2001), “When seen with fresh eyes, it becomes clear that the Internet is not necessarily a blessing. It tends to alter industry structures in ways that dampen overall profitability, and it has a leveling effect on business practices, reducing the ability of any company to establish an operational advantage that can be sustained”. The seemingly impenetrable walls firms had constructed around their competitive niche were easily scaled by digitally-enabled competitors. The digital age supported supply and demand calibration at a global level, allowed customers to compare offerings with a keen eye on price, facilitated direct communication that bypassed long-standing traditional channels, and enabled competitors to immediately mimic a leader’s innovations. The result, according to Porter, was “most of the trends are negative … The great paradox of the Internet is that its very benefits – making information widely available, reducing the difficulty of purchasing, marketing, and distribution, allowing buyers and sellers to find and transact business with one another more easily – also make it more difficult for companies to capture those benefits as profits”. Traditional methods of value preservation were rendered ineffective.

However, as the Internet revolution rolls on absent the outsized hype, evidence suggests that while old methods of value preservation are inadequate, new ones have emerged (see Table 1 for specific changes in strategies related to size, switching costs, resources, and capabilities). Successful firms have recognized the digital age as a catalyst for upgrading from walls to windows, creating more nuanced defenses that adapt to the possibilities of a wired world. Value creation still depends on superior products and service offerings. Value preservation, and especially value capture, rely on more subtle techniques employing more abundant possibilities. Hence the window metaphor – its transparency is a form of misdirection, as windows offer similar shelter from the elements as walls. Additionally, windows can be opened, making available a variety of connections with the surrounding world that are prohibited by more oppressive walled defenses. The digital age has eroded traditional barriers, but can be turned into an advantage by savvy firms.

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"Fortress value" – erecting walls to maintain competitive advantage

Value preservation has relied on an aggressively defensive mindset. Having identified and moved to a successful niche in a value chain, managers seek to build a fortress around their position, erecting walls between themselves and all other constituents: competitors, new entrants, and suppliers and buyers. Managers were trained to employ a worldview similar to that of medieval architects – the higher, thicker, and more abundant the walls, the more successful a firm would be at preserving its advantage. As noted in Ghemawat (1996), these defensive strategies are nonexclusive and work best as intersecting layers of protection. The strategy literature organizes these defensive barriers into two camps: position-based and capabilities-based advantages.

Size advantages, switching costs, and structural barriers highlight the position-based defenses employed in value preservation. Significant size and scope (reach) advantages offer compelling cost advantages and leverage high investment and shared resources to shift value-chain dynamics in the firm’s favor, deterring market entry. Similarly, firms that build high switching costs into an economic system (through proprietary standards, information asymmetry or network effects) will gain access advantages to customers over competitors. Finally, structural barriers based on inimitable investment strategies, such as above-average resource allocation to R&D, sales force, or distribution channels, buttress a firm’s value chain position, offering the potential for enduring value capture.

Capabilities-based defenses address a firm’s ability to sustain advantage through less tangible, but equally effective, means. Capabilities refer to a firm’s skill at strategically coordinating business processes in a support infrastructure that transcends traditional business units and functions (Stark et al., 1992). Firms that implement superior organizational structures and processes throughout the firm are able to create cultural-, process-, or knowledge-based competitive advantages. Because these capabilities are the result of a series of firm-wide decisions, a culture, and an infrastructure, they are more difficult to duplicate than position-based defenses.

Digital disruption

As the Internet soared to prominence in the mid-1990s, academics and managers alike rushed to understand its impact. The initial declarations were unnerving. Many believed that the Internet fundamentally altered the rules of competition. As the speed with which competitive dynamics could shift in a given industry quickened, conventional strategies employed to create, capture, and preserve value were deemed antiquated. As the boom turned to bust in 2000, a backlash sentiment gained favor, suggesting that the Internet merely represented a technology shift whose effects could be anticipated with traditional strategic frameworks. In reality, both perspectives miss the effects on strategy, to the potential peril of many managers in each camp.

The term “Internet”, like “new economy”, does not adequately capture the recent evolution of business. In contrast, “digital age” speaks to advances in digital technology (e.g. speed, networked personal computing, broadband data transfer) and subsequent convergence of communications media, including video (television), audio (radio), photography, telephone, fax, wireless handheld, computers, and, yes, the Internet. The result is an undeniable shift in the business environment: modern digital communications offer speed, reach, and richness advantages and altered economies that have changed the way firms interact with their customers, suppliers, competitors, and employees.

That the digital age has circumvented traditional means of value preservation is undeniable. Porter’s grim prediction that the digital age will homogenize product offerings, push the basis of competition towards cost versus differentiation, and benefit the consumer have proven correct. As a result, the previously unassailable defensive walls built by incumbent firms to protect value were easily scaled by digitally-enabled competitors.

Digital erosion of size and scope defenses

Digital technology allows firms to reach a wide audience of customers using the public infrastructure, thereby offering natural economies of scale to new participants. Previously, firms
used private infrastructure to control a fixed market, capping the appeal to any new entrant. The ability to communicate and transact with a global marketplace renders many local scale economies ineffective and thrusts each competitor into a vastly larger, more price-sensitive global marketplace. Additionally, many products and services can be produced with significantly lower fixed-costs in a digital world – e.g. electronic publishing or securities transactions – making minimum efficient scale easier to obtain. Electronically-delivered media can all be “mass produced” through the addition of incremental servers and modified user interfaces, greatly reducing the cost and time to grow to scale. Whereas firms formerly used physical infrastructure in local markets to leverage shared resources over a large pool of customers via scope economies, online storefronts now offer even wider geographic reach without the requirement for physical presence. The digital age impacts industry dynamics across the product spectrum, and even entrenched brands in high-customer-experience products must adapt their strategies to preserve value in the new environment (de Figueiredo, 2000).

**Digital erosion of switching-cost defenses**

Switching costs were traditionally rooted in system friction – incompatibility with system standards, transaction costs (either monetary or time), difficult and costly information search – or in creation of network effects where user benefit grows with the number of system users. However, the digital age has systematically eliminated these frictions while opening network effects to everyone:

- **Transaction costs.** Digital communications have made it cheaper, faster, and easier to conduct transactions. The technology to automate these processes, however, is available to all competitors and part of common business practice, not an opportunity for differentiation.

- **Information availability.** Gathering and comparing product and price information is easy and fast with online storefronts, exchanges, and networked collaborative planning, forecasting, and replenishment (CPFR) systems. Additionally, feedback on customer, supplier, and competitor performance is obtained and used instantaneously. As a result, product innovation and product development have become a continuous process, incorporating market feedback around the clock. The lag between a firm’s actions and the visible response by a competitor, whether in pricing, promotion, or new product offering, has diminished, leading to less differentiation among competitors.

- **Proprietary standards.** After notable success at capturing value from standards development by certain firms (Microsoft and Qualcomm are prime examples), there has been a discernable shift toward open standards in digital technology. Notably, Web design (XML) and digital telephony (CDMA-2000) rely on collaborative development efforts, which will enhance the interoperability of digital devices but also conformity among products and services to the established standards or informal norms.

- **Network effects.** The ease of connecting and communicating through the Internet, 3G handehols, and other digital connections has proliferated user networks, eroding the value of networks. The flipside to standards convergence is that preserving network advantages becomes difficult, as substitute offerings become substantially identical.

**Digital erosion of structural defenses**

Traditionally, an industry structure built containing a large, hard-to-build, R&D machine, a geographically dispersed sales force, and tightly controlled distribution channels would protect the firm that made the first investment. However, the digital age offers unprecedented opportunities for collaboration and the penetration of physical barriers through digital means at a fraction of the cost or lead time. Digital communications make global outsourcing more practical, creating virtual companies and minimizing the importance of costly vertical integration. As a result, the number of competitors proliferates while prices plummet.

**Digital effects on capabilities-based defenses**

Interestingly, the digital age has not reduced the value of capabilities-based defenses. Rather it has made them more significant albeit more subtle to create and much more proactive, rather
than defensive. The ease of digital communications and of coordination across firms in a supply chain means that capabilities are no longer contained and developed within the firm. They are co-created within the partnership links across firms and thus more difficult to create and to own and maintain. A new perspective on the external competitive and cooperative topography is needed.

**Fresh air: moving from walls to windows**

The digital age has torn down seemingly impenetrable defensive walls previously built by firms to protect value, leaving the equivalent of ruined castles. Yet as with most significant environmental shifts, the digital age offers opportunity as well as destruction, a new architectural vision to achieve sustainable advantage. Within our metaphor, the window provides the protection sought from walls while offering exciting new possibilities – light, connection to the outside world, fresh air. Fortress-like protection has given way to more nuanced design, as firms bring in and participate in the world around them rather than hide from it. The objective becomes to participate in creating value and to gather it in the fluid environment of the digital age.

To illustrate, we examine three firms with successful strategies in the digital environment, each with a different role within their industry: as an incumbent, as a new entrant to an established industry, and as a new entrant to a new industry:

- **Charles Schwab & Co.** – a leading discount retail brokerage that quickly embraced digital technologies, helping the firm maintain market leadership in the face of dot.com start-ups. Proving that the best defense can be a good offense, Schwab used digital capabilities to expand its position as a full-service advisor to its clients, taking the fight to blue chip financial institutions.

- **Lending Tree.com** – an “Internet play” that has carved a successful niche in the very traditional mortgage lending industry. Going against the grain, Lending Tree used digital technology to disintermediate the mortgage value chain, and having secured a profitable position, adapted its strategies to fend off copycat rivals.

- **eBay** – an Internet poster child who used digital technology to create a global marketplace of buyers and sellers where none previously existed. eBay’s existence is tied to advances in digital communications, yet its ability to achieve market dominance despite competition from other Internet auction sites suggests that success in the digital age goes beyond the “first screen”.

**Window 1: Collaborative scale/scope**

Speed has become as important as scale and scope. And given the importance of speed, building scale and scope alone is no longer viable. Rather, successful firms (a) understand the import of controlling value chain pathways, and (b) know how to build effective relationships that provide scale and scope at digital speed (Figure 1).

Prior to the digital age, the ability to aggregate customers and spread fixed costs was a critical differentiating factor. Firms like Citigroup in mortgage lending or Merrill Lynch in retail brokerage

![Figure 1](Window 1: Collaborative scale/scope)

Control switches in the network
- eBay’s user interface and search technology controls the breadth of information explored to optimize time-for-value tradeoff
- Lending Tree’s filter software incorporates lender underwriting criteria to match customer profile with risk appetite

Aggregating through partnerships
- Lending Tree “bear hugs” its lenders, offering customized solutions to ensure steady loan volume
- Charles Schwab directs accounts to independent brokers for portfolio analysis while acting as transaction clearing house
established a sustainable advantage over competitors through their expansive branch systems, which placed them conveniently near consumers in nearly every metropolitan market. These firms could leverage centralized back-office operations and shared marketing over an increasingly wider audience, resulting in efficient operations and strong consumer recognition. In more localized markets the marketplace for small consumer transactions was generally dominated by a single entity. For example, a local newspaper would build readership to draw significant commercial traffic, thereby reaping advertising revenue. The advent of the Internet threatened the viability of these institutions, as buyers and sellers could now seek each other unencumbered. As a result, the benefits from aggregating supply and demand became immediately available to a wide array of firms, not concentrated in a select few.

Despite the predictions that supply and demand aggregation would become a fleeting advantage, however, a closer look at these same industries suggests that certain firms were able to capture and preserve value on the basis of industry-leading scope, which in turn perpetuated brand and network advantages. The critical insight for these firms was that aggregation in the digital age is a more nuanced phenomenon than building walls around volume or customers, as was recommended in previous generations. Rather, developing a sustainable position based on scale and scope required connection with the entire industry value chain and that selective partnering is the preferred way to build scale at digital speed.

The notion that digitization will allow buyers and sellers to meet directly is not the whole story. The ubiquity of digital technology has created an increasingly expansive and complex set of pathways through which transaction participants can meet. These myriad meeting points are sources of opportunity for firms who control the switches along the network. Routing transaction participants along the most expedient paths with a well-developed understanding of each party’s desires cements the intermediary as a value-creating participant in the transaction. The ability to capture and preserve this value requires high quality provision of service incorporating preferences and balancing the tradeoffs between choice and expediency.

Both eBay and Lending Tree have thrived with this aspect of their exchanges, controlling the transaction pathways in their highly fragmented industries. eBay’s user interface and search technology allows buyers to experience the full array of products available without becoming overwhelmed by the volume of offerings. It has also begun to incorporate customer preferences into tailored marketing designed to drive repeat transactions through its site.

Similarly, Lending Tree uses proprietary filtering software to match its consumer credit profiles with those lending institutions best able to serve the customer. In each case, the process of optimally matching supply and demand pulls additional volume through the exchange, which in turn creates a wider array of pathways and more critical positioning for the exchange.

A buyer or seller reaps the most fulfilling benefits from an online service that (a) incorporates preferences in the search process, and (b) controls the breadth and depth of pathways explored to optimize the time-for-value tradeoff. Success in both (a) and (b) is dependent on the product of the number of buyers and sellers and the richness of their potential interactions. First mover status offers a critical advantage in speed to scale and scope in the digital age. However, the circularity between network growth and user experience suggests the subtle challenges of proactive strategies to profit from first-mover advantage. Firms that focus on both controlling the critical pathways for buyers and sellers within their industries and delivering value on pathways they create may then capture value now and in the future. This becomes much more about building and maintaining an offense than about defensive moves.

First mover advantage should also be supplemented by selective collaboration across a firm’s value chain in order to quickly aggregate supply and demand. However, one of the mistakes made by many Internet-era participants was indiscriminate and loosely-forged relationships that fostered similarity among participants rather than differentiation. In contrast to this approach, Lending Tree has utilized its “bear hug” tactic to tightly partner with various mortgage providers, recognizing the partner’s own proprietary interests. For those partners who wish mortgage customers to come to their own Web site, Lending Tree offers its LencX software on
"Firms that shifted mindset from building claustrophobic walls around their customers to opening digital windows for their customers’ comfort succeeded in crafting sticky customers."

the Web site as a private label offering. For customers generated by the Lending Tree Web site, Lending Tree works in tandem with its lending partners to ensure that it optimizes the referrals each partner receives. This involves going on-site with the lender to understand each partner’s underwriting risk and approval process, and if necessary customizing the partner’s electronic interface to coordinate with Lending Tree. Because Lending Tree aligns its interests with its loan providers, it receives a substantially larger fee for closed loans. Because the rate of successful closings is highly correlated with the number of loan options a customer evaluates, profit margins grow with scale. Additionally, maintaining a large pool of loan providers generates a higher quality of rate offers, which improves yield and drives even more consumer demand to Lending Tree’s site. The “bear hug” ensures that partners do not become competitors and contributes mightily to the success of both parties.

Integration of online and offline relationships is key. Charles Schwab grew a substantial pool of online brokerage clients and locked ahead to providing more comprehensive asset management and financial planning services. Recognizing that as client wealth expanded, the risk of relationships migrating to full-service investment firms increased, Schwab turned to its 6,000 independent investment advisors to enhance its service offerings. Schwab established an online system to refer high potential clients to the advisors, benefiting from the increased transaction volume. In its role as network orchestrator, Schwab carefully monitors its advisor-partners and reserves the right to step in if performance or integrity falter, thereby protecting Schwab’s brand reputation (Hacki, 2001). Recognizing that its scale advantage was at risk, Schwab utilized a selective, collaborative approach to preserve its valuable account base and to move to higher-margin activities.

Window 2: Relationship-based switching costs

Walls often carry a double purpose: keep competitors out, current customers in. Controlling information, imposing oppressive switching costs, and preventing interoperability through closely-guarded standards were battle-tested defensive strategies for firms eager to prevent customer migration. The digital age, however, was a liberating event for consumers, providing them with unlimited information accessible immediately from any location. Suddenly consumers could compare product and price information at a global level, locate counterparties, and execute transactions securely for minimal cost. Competitive pressure on incumbents and new entrants alike increased as innovations were more easily identified and replicated, making differentiation more difficult. A vicious cycle emerged where customer acquisition costs grew while customer loyalty diminished, depressing profits in many industries. The walls imprisoning customers vanished almost overnight. And some firms spent even more money to patch their porous walls, in vain, for their methods worked no longer (Figure 2).

Figure 2 | Window 2: Relationship-based switching costs

Managing the customer experience
- Schwab integrated online features with its bricks-and-mortar assets to provide flexibility to clients
- Lending Tree’s standardized its loan application and formed alliances with other home purchase influencers to assist clients in managing the home buying process

Reputation-centric networks
- eBay engenders customer loyalty with its rating system that builds trust among network participants
Seizing the opportunity, firms that shifted mindset from building claustrophobic walls around their customers to opening digital windows for their customers’ comfort succeeded in crafting sticky customers based on relationship orientation rather than system friction. Information management and reputation-based networks have emerged as new switching cost strategies for preserving value in the digital age.

While easy, rapid, and cost-free information exchange is a primary attribute of the digital age, the flip side of this benefit is the sheer volume of information available. While empowering, the preponderance of information is equally overwhelming. Firms that can assist consumers in sorting through their options for complex transactions are well positioned to capture value from those transactions.

Charles Schwab typifies a one-time brick-and-mortar firm besieged by low-cost online rivals as Internet technology gained prominence. However, Schwab actually grew its account base during the boom period and successfully maintained its position despite a market downturn that adversely affected its online competitors. Schwab recognized that the decision points for financial transactions vary significantly across customer types and within a specific customer group, across different transaction profiles. The firm responded by investing heavily in online capabilities that were seamlessly integrated into the core offline operations. Schwab customers were offered the flexibility to receive personal consultation with professional advisors or self-manage their accounts via branches, telephone, Internet, or a combination. The ability to merge information mediums allowed Schwab to gain operational efficiency (over 65 percent of the trades Schwab executes originate online) while providing a fluid experience that engenders customer loyalty (Gorham, 2001).

Managing customer expectations is not only the province of fully integrated firms. Lending Tree built a successful online franchise by demystifying the complex mortgage process. The firm developed a standardized application accepted by all of its partner loan providers, an innovation that allows consumers to quickly benefit from the Internet’s reach. In addition, Lending Tree’s proprietary filtering software delivered a higher number of attractive alternatives for the consumer to evaluate. Finally, Lending Tree recognized that mortgages are only part of a larger home purchase decision and incorporated relationships with builders, developers, and realtors to drive demand and centralize the customer experience. Lending Tree has turned information transparency and customer choice into a selling advantage.

A sign of strategic maturity is to understand network effects. Traditionally, firms developed proprietary technology standards, learning costs, or entry/exit fees to preclude network switching. However, the digital age places a premium on technology interoperability (common standards that allow devices to communicate with each other) and customer mobility, each of which makes it more difficult for firms to preserve the value inherent in their user networks. eBay’s ability to maintain a growing customer network provides evidence that network effects, while based on different tie-ins, remain a viable offensive strategy in the digital age. eBay focused on reputation (of both individual participants and the network itself) as a means to make staying in their network exponentially more valuable as it grew. Because eBay relies on thousands of sellers to populate its exchange, over whom it cannot exert direct control, and recognizes that the credibility of these sellers is instrumental in maintaining a satisfied group of buyers, eBay instituted a multi-step SafeHarbor program to buttress its community environment (Bradley et al., 2000). Self-policing mechanisms such as feedback forums created a seller performance rating system where seller credibility accrues with time and activity on the system. This profile follows the user throughout the eBay community and can impact a participant’s success in auctions. The rating system results in a more dynamic push-pull relationship between buyers and sellers on the network, binding network participants more closely. In addition, eBay established a menu of more formal trust and safety initiatives to promote safe online trading and protect the community from fraud. With the Verified User program, eBay partnered with Equifax to qualify user creditworthiness, a notation that was added to user profiles. The Deadbeat Bidder policy formalized standards for participation on the exchange. eBay also made transaction transparency a guiding principle, ensuring that community participants could trust the network in addition to each other. eBay’s proactive approach to concerns over fraud, security, and trust served to make it hard for users to leave and enjoy the
same network benefits elsewhere and competitors faced a formidable challenge in replicating this network.

Window 3: Intangible resource advantage

As with other walls constructed in the pre-digital age, many towering intangible barriers were laid bare by digitization. Proprietary design and manufacturing functions could be outsourced using sophisticated collaborative software. Expensive retail footprints were made valueless by Internet storefronts. Hard-to-manage distribution channels were eliminated by exchanges. However, the ability to differentiate lives on in the digital age, even more so in intangible resource advantages as opposed to physical resource advantages (Figure 3).

The proliferation of competitors and the complexity of pathways for transactions in the digital age mean that creating and maintaining a strong brand is even harder and more important than before. Leveraging its first mover advantage into the online mortgage arena, Lending Tree spent exhaustively on promoting its brand name and message ("Make banks compete for you") in an effort to drive consumer demand to its exchange. Nearly all of a $50 million venture round was re-invested in its brand strategy in an effort to distinguish the firm from me-too competitors.

eBay followed a similar path, recognizing that site traffic was a function of the firm's visibility on other key Internet sites. As first mover in the auction space, eBay also determined the basis of competition within its sector and promoted its brand image accordingly. Quality, variety, and reputation were trumpeted as eBay's compelling merits, which allowed the firm to disengage from price cutting that ultimately undermined other online auction providers. Both of these firms recognized that in a cluttered digital age landscape, share of mind with consumers would be critical to capitalize on their fleeting first mover advantage.

Of course, brand image alone is an insufficient defense if the product or service provided is inferior. One of the myths of the Internet boom was that the ability to replicate the "first screen" of an industry leader would allow competitors to quickly erode the advantages to innovation. However, differentiation results from a comprehensive customer experience that goes well beyond the initial user interface. Lending Tree's value resides in its ability to optimize supply-demand for mortgages. The key to success is the bundle of services, from an easy-to-use interface to proprietary screening software to vendor management capabilities to quick decision response, that support a strong brand reputation. The critical junctures of Lending Tree's value proposition are neither immediately apparent nor replicable.

Charles Schwab succeeds not only because its Web site provides real time market and account information, but also because it has built operational scale in transaction processing and a world-class customer service organization that integrates online and offline communications. Although the digital age highlights the advantages of a few mouse clicks, sustainable advantage accrues to firms who provide a compelling customer experience requiring investment well beyond the first screen.

Window 4: Co-specialized capabilities

Completing the window metaphor, the digital age places a premium on the ability to open up and connect with the outside world and to build capabilities across the external connections. Each firm is only as good as its partners in delivering value, highlighting the importance of choosing the right partners and ensuring that each partner fulfills his role (Figure 4).

Figure 3 Window 3: Intangible resource advantage

- Branding for success
  - eBay and Lending Tree both spent substantially on a differentiated brand identity rooted in quality experience rather than low price

- Providing comprehensive service beyond the first screen
  - Lending Tree layers its user interface, filtering software, and large pool of lenders into a full-service offering difficult to replicate
Connecting across the value chain

- Lending Tree consults with lenders to ensure that applicants routed to the lender will have a strong chance of timely approval.
- Schwab carefully monitors its affiliate advisors to ensure that its reputation is enhanced through added service.

The significant investment Lending Tree makes in each of its loan providers exemplifies the chain-wide commitment required to succeed in the digital age. As it approached vendors looking to expand its network, Lending Tree was surprised at the inability of many large mortgage lenders to accommodate additional volume routed through Lending Tree. Whereas Lending Tree’s LendX software could filter high transaction volumes, lenders had not modified their approval processes to meet digital speed. Lending Tree’s value proposition was based on not only referring applicants to mortgage providers, but also on enhancing the prospects of a closed loan. Therefore, Lending Tree needed assurance that applications routed to its loan provider partners would not be lost in a bureaucratic black hole, in the process diminishing Lending Tree’s reputation with consumers. To strengthen the partnerships, Lending Tree offered to consult with each of the lenders, developing fluid interfaces with the LendX system and incorporating the lender’s risk appetite into the filtering software. The result is a higher percentage of closed transactions, value captured by both partners in the relationship.

Schwab’s independent financial advisor relationships work in much the same way. Schwab focuses on customer acquisition, technology leadership, and transaction processing while relying on the advisors for more detailed client consultation. The providers benefit from a referral stream and low-cost transaction clearing, while Schwab satisfies the more advanced requirements of its client base. This symbiotic relationship depends on each firm specializing in certain aspects of the value proposition, and on continual two-way monitoring such that the full product does not suffer.

Conclusion

The notion of sustainability in competitive advantage has gone hand-in-hand with the medieval mentality of building high, impenetrable walls to protect an advantaged position. However, advances in speed and reach and connection in the digital age have swept away these defenses and forced us to rethink the time-honored “fortress” approach to value. In response to the changed environment, we advocate the window metaphor as a more appropriate means of designing sustainability in the digital age. Rather than wailing competitors out and customers in, firms should proactively reach out to customers, suppliers, and even “bear hug” potential competitors as a means of securing their own value capture. The window metaphor offers two primary perspectives. First, although transparent to the inflow of information, a window still provides wall-like protection. Firms that focus on offering a superior customer experience and partner with customers throughout the transaction process are well positioned to capture the customer loyalty that digital technology makes elusive. Second, windows let the outside world in at various times. Firms that take advantage of collaboration with customers and suppliers will find the digital age a boon rather than curse, allowing them to reach wider audiences and develop deeper relationships than previously possible and raising the competitive standard for chain-wide value delivered to the end customer.

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