

Dynamic and Ordinary Capabilities: A Project Management Perspective

Abstract

The project management literature has typically focused on project efficiency measures such as time, cost and quality, but rarely examined broader measures of project success such as customer satisfaction and customer loyalty. In this study, we apply a Resource Based Theory (RBT) framework, and examine both ordinary and dynamic capabilities of the firm, and their influence on customer satisfaction and repurchase intentions. We also include the firm's corporate reputation and explored its moderating influences on variables in the model. Data from 491 project managers indicated that one dynamic capability (relational) was three times stronger at predicting customer satisfaction than one of the ordinary capabilities (project). Another dynamic capability (product) was not a significant predictor of customer satisfaction. Customer satisfaction was the strongest determinant of repurchase intentions and fully mediated the impact of the firm's dynamic and ordinary capabilities on repurchase intentions. When the sample was split according to corporate reputation, for the group who saw the focal firm reputation ranked first in industry, the project (ordinary) capabilities and relational (dynamic) capabilities had similar influences on satisfaction. However, for the group who saw other firms' reputation ranked first, relational capabilities were stronger than project capabilities at predicting satisfaction. This suggests that corporate reputation has a significant moderating influence on customer project outcomes.

Managerial Relevance

This paper focuses on project management success using a dynamic capabilities framework in a B2B services context. We found that the relational interactions between the client and project management firm to be much more influential on satisfaction, than typical project efficiency measures such as: on-time, on-budget and on-scope indicators. In our study, satisfaction was also found to be the strongest predictor of repurchase intentions for conducting future repeat business between the two firms. Typically, projects are seen as one-off transactions with a distinct beginning and end-point, where successful project completion is the most important factor. However, in some project management situations, there are on-going business relationships that last for many years, and this requires an additional focus on relational factors such as satisfaction and loyalty. In our project management context, customers still expect project engineers and their associated firms, to have good organizational and technical skills. However, to create a satisfied and loyal customer in the long term, project managers also need effective communication and collaboration skills. They must therefore have strong interpersonal skills to nurture and maintain these customer relationships for future repeat business and positive referrals.

Keywords

Dynamic Capabilities; Ordinary Capabilities; Customer satisfaction; Corporate Reputation; Repurchase Intentions; Resource Based Theory

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I. Introduction

The majority of empirical research in project management has traditionally been operational, focusing on “how to” better manage projects and achieve high project efficiency. The iron triangle of: on time, on budget and on scope, have been the traditional performance metrics used to measure whether projects have been delivered successfully (Pinto and Prescott 1988; Shenhar and Dvir 2007). In recent years, however, several additional metrics of project success have emerged that provide a more holistic view. Overall project success could include measures such as: team satisfaction; client satisfaction; organizational ability; business success; and preparation for the future (Aladağ & Isik, 2020; Cooke-Davies 2002, Mir & Pennington, 2014; Shenhar & Dvir, 2007). Serrador & Pinto (2014) found in one study that a project’s time, budget and scope (project efficiency) is only responsible for 36% of a project’s success. They suggest that project managers should take into account these broader project success measures, in addition to the traditional project efficiency measures. In this study, we respond to this call for project managers to measure project success more broadly and focus on two customer outcomes of project success: client satisfaction with the project; and future purchase intentions with the same project supplier.

This research makes several important contributions to the project management literature. First, the study addresses the need for a strong theoretical foundation to the study of project management. Previous research has been beneficial at understanding the characteristics of project efficiency, but has been rather descriptive on the tools, techniques, and problem solving skills required in project management (Ahlemann et al., 2013). The vast majority of the project management literature has been atheoretical, failing to contribute to an overarching theory of project management (Killen et al., 2012). A number of authors have suggested that project management researchers adopt a theoretical framework from outside

the field of project management (Ahlemann et al., 2013; Davies & Brady, 2016). In this study, we address this need by integrating the theoretical perspective Resource Based Theory (RBT) of the firm in the context of project management. Originating in the field of strategic management, RBT has received widespread support across numerous business disciplines and is well-suited for applications in project management (Kozlenkova et al., 2014). Recently, RBT has been applied to project management both conceptually and empirically (Biedenbach & Muller, 2012; Davies & Brady, 2016) highlighting its relevance to our study. Our research presented here utilized an RBT approach, by examining the influence of a variety of ordinary and dynamic capabilities on two project management outcomes - client satisfaction and repurchase intentions.

Our second contribution to the literature is the application of services marketing theory to our understanding of project management success. In services marketing there have been many empirically validated studies that have demonstrated the strong links between service quality, value, customer satisfaction and customer loyalty in a range of different contexts (see for example Brady & Cronin, 2001; Oh & Parks, 1996). In the project management literature, there has been limited attention to these variables, and their respective inter-relationships, despite the synergies and overlaps that are possible. While customer satisfaction has been gaining increasing recognition as a project success factor (Serrador & Turner, 2015; Williams, Ashill, Naumann, & Jackson 2015), customer loyalty has drawn scant attention in the project management literature. Projects are often viewed as discreet activities with clear beginning and ending points (Ika, 2009), and are often conceptualized as “temporary organizations” to deliver on a project (Davies and Brady, 2016). This may be why customer loyalty has been somewhat neglected by researchers as there is a clear endpoint delineated. While a specific project may end, we contend that the relationship between the supplier and customer organizations does not end, but often continues with future business in an appropriate way (Aladag & Isik, 2020). Therefore, in this study, we extend the quality-

satisfaction-loyalty chain framework from services marketing, and apply it to the context of project management success from a customer perspective.

Third, our study included corporate reputation as a moderating variable to the project success factors identified earlier. Corporate reputation is an intangible asset that conveys value to stakeholders (Cooke-Davies, 2002). Reputation has been found to be positively associated with satisfaction, loyalty, and trust (Caruana et al., 2004; Rose & Thompson, 2004). An important benefit to customers of a strong reputation is the reduction of risk and uncertainty (Czinkota et al., 2014). This risk reduction benefit has specific implications for project management specifically when dealing with large-scale B2B projects, which made up the sample in our study. We examined how the different antecedents of customer satisfaction and repurchase intentions were moderated by the reputation of the firm. Our split-sample approach compared projects where the firm was perceived to have the strongest reputation in the industry, versus those who thought the firm did not have the strongest reputation.

The context of our study is a Fortune 100 firm in the building services industry delivering large-scale project installations of heating, ventilation, and air conditioning (HVAC) systems. The mean length of relationship between the supplier and customer organizations was 18 years. These long-term, and strong, alliances suggest that both the supplier and customer had likely achieved a high level of project management maturity (Gorog, 2016; Grant and Pennypacker, 2006) where both the supplier and customer would have benefited from lessons learned through experience (Love et al., 2016). The supplier/customer relationship would have continually evolved through emergent learning and experiential knowledge transfer (Davies, Dodgson, & Gann, 2016; Love et al., 2016). This type of long-term project management relationship is substantially different from a one-off project, which is frequently implied in the project management literature. Specifically, the individual “project” was embedded within a long-term relationship between the supplier and customer organization where in many cases, the customer had experienced numerous projects

with the same supplier. For the purposes of our study, the projects included new system installations, additional system extensions, or system upgrades where there were discreet project management requirements.

II. Theoretical Framework

Since the emergence of RBT (originally named Resource Based View – RBV) over 50 years ago, the approach and framework has constantly evolved and become widely accepted in most disciplines within business (Kozlenkova et al., 2014). RBT theorists have suggested that a firm's competitive advantage originates with the way a firm bundles its internal resources to create a unique value proposition in the marketplace. Grant (1991) suggested that a firm's competitive advantage flowed from six categories of resources: financial, physical, human, technological, reputation, and organizational. He further suggested that a firm's capabilities resulted from how teams used the tangible and intangible resources in unique ways. Very generally, RBT contends that a firm must “bundle” these resources (Barney, 1991) or “orchestrate” them (Ireland et al., 2003) into unique configurations. These bundles can then be translated into market offerings through a firm's value creating processes. The resource bundles and value creating processes enable unique capabilities and reputation in the marketplace (Eisenhardt & Martin, 2000; Love et al. 2011). Since a firm's resources and capabilities are fluid, constantly changing in response to the dynamic business environment, the concept of dynamic capabilities has emerged (Teece, 2000; Teece, Pisano, & Shuen, 1997). They contend that most capabilities are dynamic, from either deteriorating or improving over time. Helfat and Peteraf (2003) recognized the fluid nature of competitive advantage, and dynamic capabilities have lifecycles that vary based on industry velocity and competitive intensity, and that dynamic capabilities need constant replenishment and renewal.

The early research by Teece, Pisano, and Shuen (1997) and Teece (2000) focused on the ability of dynamic capabilities to create a competitive advantage at the strategic level of

the firm. They noted that dynamic capabilities integrate and draw upon areas such as the management of R&D, product and process development, technology transfer, intellectual property, manufacturing, human resources, and organizational learning (Teece, Pisano, & Shuen 1997). Thus, they conceptualized dynamic capabilities as high-level routines that integrate knowledge from across the firm and drive strategic change. In contrast, Eisenhardt and Martin (2000, p.1106) stated that “dynamic capabilities consist of specific strategic and organizational processes such as product development, alliancing, and strategic decision making”. In contrast, Eisenhardt and Martin (2000) contend that an organization’s operational routines were the foundation of a firm’s dynamic capabilities, which, in turn, was an antecedent of strategic routines.

These contrasting views of dynamic capabilities by Teece, Pisano, and Shuen (1997) and Eisenhardt and Martin (2000) eventually led to the distinction between ordinary (or operational) and dynamic capabilities (Di Stefano et al., 2014). Ordinary capabilities consist of the things that a firm must do “to make a living” in the present (Winter & Checkland, 2003). Drawing on Peter Drucker, Teece (2014) notes that dynamic capabilities are about “doing the right things”, while ordinary capabilities are about “doing things right”. Ordinary capabilities are those that would be found in “best in class” benchmarking which may improve speed, quality, and efficiency. Teece (2014) noted that ordinary capabilities involve skilled personnel, facilities and equipment, productive processes and procedures, technical knowledge, and administrative coordination.

As noted earlier, Teece (2014) has stated that dynamic capabilities are higher-level firm routines that shape and reconfigure ordinary activities to create a competitive advantage. Fundamental to Teece’s view is that dynamic capabilities can “sense” opportunities in the external environment, hence most dynamic capabilities must have some degree of external focus beyond the firm’s boundaries. Dynamic capabilities include the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly

changing environments, (Teece, Pisano, & Shuen 1997, p. 516). Dynamic capabilities are therefore higher level, strategic, and often externally focused, while ordinary capabilities are internally and operationally focused. For firms to be successful they must have both dynamic capabilities and ordinary capabilities that perform at a high level and improve over time (Di Stefano et al., 2014; Helfat & Winter, 2011).

While much of the early literature on ordinary versus dynamic capabilities focused on firm level processes and organizational routines, the role of managers influencing dynamic capabilities within the organization was substantially neglected (Teece, 2007). Recently, a stream of research has studied managerial actions and behaviors within the context of dynamic capabilities (see for example: Augier & Teece, 2009; Helfat & Winter, 2011; Hermann & Nadkarni, 2013). This stream of literature has become known as the “micro-foundations of dynamic capabilities” (Helfat & Peteraf, 2015). The focus of this literature stream was on how managerial actions and behaviors influenced the development and evolution of dynamic and ordinary capabilities. The micro-foundations most commonly investigated were managerial cognition (perception, problem solving, reasoning, communication), managerial social capital (influence, relationships, social power, social networks), and human capital (knowledge, skills experience, absorptive capability, adaptive capability) (Helfat & Martin, 2015; Helfat & Peteraf, 2015; Teece, 2007).

In the context of project management, the concepts of RBT and ordinary/dynamic capabilities have had very limited application, with a few exceptions. Using a micro-foundation approach, Biedenbach and Muller (2012) examined three aspects of dynamic capabilities (absorptive capacity, innovativeness, and adaptive capability). They found that all three aspects of dynamic capabilities were positively associated with project performance. Killen et al. (2012) noted that explicit and tacit knowledge of a supplier is embedded in the company’s unique skills, knowledge, and ways of working. They also noted that a supplier firm’s reputation, knowledge-sharing processes and culture were important in project

management success. Also using a micro-foundation approach, Ghapanchi et al. (2014) found that communication and innovativeness were important in open-source software project success.

There have not been many studies looking at the client organization from a dynamic capabilities perspective (Adam & Lindhal, 2017; Winch & Leiringer, 2016), indicating there are several opportunities for researchers to explore. The work of Davies and Brady (2016) is also very relevant to our study. They suggested that both dynamic capabilities and ordinary capabilities could be aligned to project management situations. They defined project capabilities as “the distinctive managerial knowledge, experience, and skills required to establish, coordinate and execute projects” (Davies & Brady, 2016, p.314). Similarly, they go on to describe project capabilities as operational routines such as bidding, planning and scheduling of projects. As such project capabilities identified by Davies and Brady (2016) are conceptualized in our study as ‘ordinary capabilities’, in other words the internal processes necessary such as project planning, execution, and delivery (Teece, 2014; Winter & Checkland, 2003).

Dynamic capabilities are also important in project management situations and include factors such as firm reputation, inter-organizational alignment, product development, innovation, inter-firm relationships, inter-firm communication, and market intelligence (Mindruta et al., 2016; Teece, 2007). Others have defined dynamic capabilities in project management as reputation (Barney, 2012), relational capabilities (Morgan et al., 2009; Ramaswami et al., 2009), and product capabilities (Lages et al., 2009). Based on this literature, we operationalize three capabilities: project capabilities, product capabilities, and relational capabilities in our project management context. Overall, we expected both the ordinary and dynamic capabilities to impact directly on customer satisfaction.

III. Model Development and Hypotheses

Building on the recommendation of Davies and Brady (2016), we used an RBT framework, where we identified a number of ordinary and dynamic capabilities as antecedents to customer satisfaction and repurchase intentions in a project management context. Our goal was to determine the impact of the firm's capabilities on customer outcomes in a project management context. Specifically, we examined the impact of the supplier's project capabilities (ordinary), and their relational capabilities (dynamic) and product capabilities (dynamic), on customer satisfaction and repurchase intentions. Due to its importance in large-scale projects we also examined the impact of price competitiveness of the firm on repurchase intentions. The supplier's corporate reputation was our moderating variable, and through a split-sample partition we compared the perceptions of who those who reported that the focal firm reputation was the strongest in the industry, versus those who felt that other firms had the strongest reputation. Our proposed model is shown below in Figure 1.

Insert Figure 1 here

A. Project Capabilities

As noted previously, Davies and Brady (2016) proposed that project capabilities and dynamic capabilities could be applied in a project management context. Building on their work, we examined three phases of the project lifecycles. One phase was project planning where supplier and customer teams work together to clarify project parameters, timelines, and customer expectations (Ibbs & Kwak, 2000; Pellegrinelli, 1997). The second phase was project execution where the scope of work is primarily performed, including issues such as scheduling, meeting milestones, and coordinating work (Ahola et al., 2008). The third phase was project delivery, which included issues such as commissioning, training, correction of deficiency items, and system start-up. Later, we aggregated these three phases into a single construct, which we conceptualized as project capabilities. Based on the strategic

management literature (Helfat & Winter, 2011; Teece, 2014), we defined project capabilities as ordinary capabilities that would have a significant impact on customer satisfaction.

H1: Project capabilities will be positively associated with customer satisfaction.

B. Relational Capabilities

Relational capabilities are a dimension of managerial social capital within the dynamic capabilities literature (Helfat & Martin, 2015) and are relatively new in project management. Relational capabilities can be formal or informal within, and between teams and across organizational boundaries. Managers in boundary spanning, network roles, such as project managers, have access to information that may be helpful in sensing and seizing new opportunities and can adapt dynamically to changing client needs. These relational capabilities are positively associated with creativity and innovation within and between organizations (Helfat & Martin, 2015). Although there have been some applications of RBT and dynamic capabilities in the project management literature (Biedenbach & Muller, 2012; Davies & Brady, 2016; Ghapanchi et al., 2014), discussion of relational capabilities is scarce. Killen et al. (2012) discussed the role of relationships and processes in the sharing of tacit knowledge. They suggested that knowledge sharing across organizational boundaries was achieved through relational networks.

While not addressing relational capabilities directly, there is some project management research that has addressed the role of relationships more broadly (Wang, Fu & Fang, 2019; Ahola et al., 2008; Zou et al., 2014). It was noted by Shenhar (2008) that close supplier-customer relationships are necessary to make adaptations to complex, uncertain projects. Serrador and Turner (2015) and Svejvig and Anderson (2015) also discussed the need for agile supplier-customer relationships involving joint collaboration and problem solving in agile project management. Davis (2014) and Muller and Jugdev (2012) indicated that close supplier-customer relationships were reciprocal with knowledge sharing flowing in both

directions. Previous research has found that relationship quality is positively associated with project success factors (Mir & Pennington, 2014; Zou et al., 2014). Therefore, we expected relational capabilities to be positively associated with customer satisfaction.

H2: Relational capabilities will be positively associated with customer satisfaction.

C. Product Capabilities

The second dynamic capability in our study is the capability to produce high quality, innovative products. Teece, Pisano, and Shen (1997) noted that dynamic capabilities can include research from R&D, product development, and technology transfer to create new unique products. The ability to produce high quality, innovative products is an outcome of a unique bundling of a firm's resources. Teece (2007) indicated that sensing opportunities requires aligning markets and changing customer needs with new product development and innovation. He said that developing new product architectures and business models was how a firm satisfied changing customer needs. He contended that the ability to create, adjust, and hone product architecture and business models, was foundational to dynamic capabilities.

In our study, we examined the customer's product capabilities of large heating, ventilation, and air conditioning systems in large facilities. In many similar B2B situations, product and service performance are inherently intertwined in the delivery and installation of complex systems (Tuli et al., 2007; Ulaga & Eggert, 2006). Because of the difficulty of separating product and service quality, Ulaga and Reinartz (2011) referred to these as hybrid services that have both product and service dimensions. As such, the changing dynamics of design, manufacture, installation, and maintenance of large hybrid HVAC systems clearly suggests that product capabilities are an important driver of customer satisfaction.

H3: Product capabilities will be positively associated with customer satisfaction.

D. Price Competitiveness

When determining delivered value, customers typically make a trade-off of benefits and sacrifices (Zeithaml, 1988). In our study, based on the dynamic capabilities literature, the benefits flowed from the supplier's reputation, relational capabilities, communication capabilities, innovativeness, and product capabilities. The sacrifice was the cost, or price, of the project. As noted earlier, customers of firms with a strong reputation and a reputation for innovativeness are often willing to pay a price premium relative to the competition. The price premium is justified by risk reduction throughout the project and by anticipated better problem solving. We therefore operationalized price competitiveness relative to suppliers in our model. Since price perceptions have been found to directly impact repurchase intentions (Gill & Ramaseshan, 2007), it was included as a direct measure in our study. We operationalized price as a relative judgment of price competitiveness in the market. High price competitiveness indicates comparatively lower prices to other suppliers. Low price competitiveness indicates prices are comparatively higher to other suppliers. As such we expected price competitiveness to be positively linked to repurchase intentions.

H4: Price competitiveness will be positively associated with repurchase intentions.

E. Customer Satisfaction and Repurchase Intentions

Customer satisfaction is one of the most widely used metrics in business (Anderson & Mittal, 2000; Lam et al., 2004). Many studies in marketing have found that customer satisfaction is linked to increased financial performance, share of wallet, and word-of-mouth recommendations (Cooil et al., 2007; Williams & Naumann, 2011). More recently, customer satisfaction has emerged as a key success factor in project management (Serrador & Turner, 2015; Williams et al., 2015). Hence, the use of customer satisfaction as a project success factor has strong support. Customer satisfaction has also been found to be a mediator between various dimensions of product and service quality, and repurchase intentions (Bolton, 1988;

Sirdeshmukh et al., 2002). Repurchase intentions are a perceptual indicator of actual, subsequent loyalty behaviors, such as continuing to do business with a supplier and share of wallet (Fornell et al., 1996; Zeithaml et al., 1996).

From this stream of research, it has emerged that repurchase intentions can be a better predictor of subsequent loyalty than customer satisfaction as some highly satisfied customers will still defect (Bennett and Rundle-Thiele, 2004; Chandrashekar & Tellis, 2007). Therefore, we included repurchase intentions as a dependent variable, with customer satisfaction mediating the relationships between the firm's capabilities and repurchase intentions, something rarely done in project management research. Based on the wealth of literature that offers support for a strong positive relationship between customer satisfaction and repurchase intentions (Williams et al., 2015; Cronin, Brady & Hult, 2000), we aimed to validate this in the project management context of our study, and propose the following hypotheses.

H5: Customer satisfaction will be positively related to repurchase intentions.

H6: Customer satisfaction will mediate the relationship between the firm's capabilities and repurchase intentions.

F. Corporate Reputation

Corporate reputation is an intangible firm resource that represents a collective representation of perceptions based on a firm's past actions and perceived capacity to meet expectations (Hansen, Samuelsen and Silseth, 2008; Whetten and Mackey, 2002). Reputation has long been viewed as an important asset of a firm in creating a competitive advantage (Bergh, Ketchen, Boyd, & Bergh, 2010; Grant, 1991). Walker (2010) contends that a firm's reputation says a good deal to suppliers, customers, and competitors. He states that reputational assets are intangibles that enable a firm to achieve goals in the marketplace. Despite the recognized importance of a firm's reputation, the concept is often ambiguous with several related but distinct concepts such as, corporate identity, brand reputation, and

corporate reputation used synonymously with each other (Abratt & Kleyn, 2012). A corporate reputation is based on stakeholder's evaluation of the corporate brand over time. A corporate reputation can be influenced by brand communication, but is supplemented by actual experiences of the stakeholders (Brown et al., 2006). Reputation is influenced by a firm's product and service quality, overall performance, citizenship, governance, brand communication, and word-of-mouth with other stakeholders.

It has been noted that the nature of projects inherently has a significant risk component built in (Boateng et al., 2015). They identified five categories of project risk: social, technological, economic, environmental, and political. Collectively, they identified 47 different types of project risk in these five categories. van Os et al. (2015) noted that risk is a threat to achieving project goals, and perceptions of risk vary by stakeholder group. They further noted that a primary role of project management is to manage, mitigate, and eliminate risk. Selecting a supplier with a strong reputation and experience can reduce many of the risks identified in this literature. Jensen and Roy (2008) noted that a strong reputation conveys prestige and status in an industry. Since reputation is based on prior performance, high industry status reduces perceived performance risks in a project. To illustrate, about half of the 47 types of project risks identified by Boateng et al. (2015) can be mitigated or reduced by a highly experienced supplier. We therefore expected corporate reputation to moderate the relationship between the firm's capabilities, price competitiveness, satisfaction, and repurchase intentions.

H7: The path coefficients between the firm's capabilities, price competitiveness, customer satisfaction and repurchase intentions will be significantly different between the two groups.

IV. Research Methodology

A. Research Approach

The focal firm in our study is one of the industry leaders in the building services industry. The firm is a Fortune 100 firm that operates in over 100 countries. The projects in this study were either new installations or major retrofits of building control systems. All projects were relatively large and were done for clients in industries such as manufacturing, healthcare, education. The sample in this study included companies that had recently completed a building-service control systems project. The individual respondent was typically a facilities manager in the client organization, usually with 8 or more years of experience dealing with the supplier. Each respondent was interviewed by phone within 30 days of project completion. Approximately 65% of customers contacted agreed to complete a customer satisfaction survey. With this high response rate, non-response bias is unlikely to be a problem. From the total sample, we identified a total of 491 respondents who either thought the Focal firm reputation was ranked first in industry (n=250), or those who thought Other firms' reputation was ranked first in industry (n=241).

B. Construct Measurement and Items

The questionnaire was designed and modified based on qualitative depth interviews with customers. The goal of the interview was to identify the key drivers of customer satisfaction. These attributes were crafted into a questionnaire. Depth interviews were conducted every two years to identify any changes in the customer's perceptions. Repurchase intentions was a composite of "likelihood to choose again" and "willingness to recommend". Customer satisfaction was a combination of "overall satisfaction" and "met expectations". Both repurchase intentions and customer satisfaction were linear composites of two items to improve reliability and validity. These combinations have commonly been used in other academic research (Barry et al., 2008; Williams et al., 2015).

Relational capabilities consisted of three items (relationship quality, problem solving, and two-way communication). These measures were adapted from Haverila et al., (2016) and Williams et al. (2015). Following Davies and Brady (2016), project capabilities were measured as a higher-order formative construct made up of three specific dimensions: project planning (4 items), project execution (6 items), and project delivery (6 items). Specifically, we treated project capabilities as a reflective first-order, formative second-order construct (Diamantopoulos, Riefler & Roth, 2008). We followed studies that treat project capabilities as a cumulative combination of project planning, project execution and project delivery (Iyer & Banerjee 2016). We believe it is more appropriate to conceptualize project capabilities formatively since changes in any of the three dimensions would cause a change in customer perceptions of project capabilities. All three project capabilities dimensions were treated as first-order constructs measured by reflective indicators. Product capabilities consisted of product quality, dependability, and innovativeness as per previous studies (Haverila et al., 2016; Williams et al. 2015). Price competitiveness consisted of comparative price perceptions of the total installed system, repair/replacement parts, and services. All price questions were scaled “1 Significantly higher than the competition; 2 Somewhat higher....; 3 About the same....; 4 Somewhat lower....; 5 Significantly lower....”. Finally, corporate reputation was measured with a single question, used to differentiate the sample into two groups: “which firm do you consider to be the best in the industry”, with several supplier options listed. We subsequently partitioned the data into: Focal firm reputation is ranked first (n=250); and Other firm reputation is ranked first (n=241).

All constructs and their respective items are shown in Table I. Questions had a five-point response scale. The reason for this is that the data was gathered through the use of telephone interviews, and five-point scales are concise and clear to respondents. Most of the project management performance questions used an “Excellent-Very Good-Good-Fair-Poor”

scale. These scales are among the most commonly used in academic research (Gruca & Rego, 2005).

C. Analytical Techniques

In designing the questionnaire, items comprising the dependent and independent variables were separated and items within each set were intermixed in an effort to reduce single-source method bias (Podsakoff et al., 2003). Common method bias was assessed using a CFA approach to Harman's (1967) one factor test (McFarlin & Sweeney, 1992). According to this test, if a single factor emerges from the exploratory factor analysis or one factor accounts for more than fifty per cent of the variance in the items, methods bias is present (Mattila & Enz, 2002). All of the items were entered into a common factor analysis with OBLIM rotation. The results revealed that no single factor accounted for more than fifty per cent of the variance. Therefore, method bias, per se, cannot explain our study results.

We used Partial Least Squares (PLS Graph version 3.00), a component-based path modelling technique (Chin, 2009), to examine differences between the two corporate reputation groups: Focal firm reputation is ranked first; and Other firm reputation is ranked first. PLS was considered to be an appropriate methodology for a number of reasons. First, unlike covariance structural analysis, such as LISREL, which seeks to explain relationships, the objective of PLS is to explain variance in the endogenous variables in a model that has managerial relevance (such as customer satisfaction and repurchase intentions). Second, PLS is particularly well suited to operationalizing satisfaction models in an applied setting (Edvardsson et al., 2000). Second, PLS made it easier to explore the differences between the two co groups by comparing their path coefficients (Chin, 2009). Third, PLS is better suited to handle formative indicators than co- variance-based SEM since it can estimate the formative indicator weights and loadings along with the structural model estimation.

To test the research hypotheses, we first examined a main effects model that specified relationships between the main independent variables and the dependent variables for the full sample. In this main effect model, as our research involved a construct at a higher level of abstraction, the second order measurement model for project capabilities was estimated separately using the repeated indicators or hierarchical components approach (Chin et al., 2003; Wetzels et al., 2009; Hair et al., 2013). This approach tested whether the first order constructs loaded onto their posited second order constructs. In order to evaluate the structural model, the R^2 values for the endogenous constructs and the size, t-statistics, and significance level of the structural path coefficients were computed using the bootstrap re-sampling procedure. Bootstrapping with 5000 bootstrap samples and sample sizes that are equal to the original sample sizes is fundamental for the significance of path coefficients (Efron & Tibshirani, 1993). After assessing the measurement model using the full sample, the same model was examined for the two corporate reputation groups. Because the moderator variable (corporate reputation) was not a continuous variable, we applied a multisampling approach.

V. Results

A. Measurement Model Results

The measurement model for all the constructs with reflective measures was assessed by examining individual item reliability, internal consistency and discriminant validity. Chin (2009) suggests that loadings of 0.50 or 0.60 are acceptable if there exist other indicators in the block for comparison. All composite reliabilities were above the 0.70 acceptable threshold (Gefen et al., 2000) and ranged from 0.88 to 0.93 in the full sample. AVE scores for all reflective constructs were above 0.50. When AVE is greater than 0.50, the variance shared with a construct and its measures is greater than error (Fornell & Larcker, 1981). We also assessed whether the same measurement model held for each sample (Focal firm reputation sample and Other firm reputation sample) by analyzing the measurement model invariance.

Using the bootstrapping technique and the Fishers' "z" transformation, item loadings did not differ significantly across both samples. All individual item loadings with exception of one item, were above 0.70 (Chin, 2009) and significant using the bootstrap results of PLS.

Insert Table I Here

Acknowledging that multi-collinearity is an undesirable property in formative models as it causes estimation difficulties (Diamantopoulos & Winklhofer, 2001; Albers & Hildebrandt, 2006), we tested for its existence by applying the commonly accepted cut-off value of $VIF > 10$ or its tolerance equivalent (Hair et al., 2006). The VIF values were just over one in the full sample suggesting that multi-collinearity was not present. We also assessed the constructs for discriminant validity by calculating the square root of the AVE for each construct and ensuring it is larger than the correlation between the construct and any other construct in the model (latent variable scores for composite constructs) (Fornell & Larcker, 1981). No evidence was found of discriminant validity.

Frequency distribution of the 29 items indicated no problems of floor or ceiling effects in the measurements. Kolmogorov-Smirnov and Shapiro-Wilk tests also showed that each indicator of the model constructs was normally distributed. By testing the structural means to identify differences of the levels of the latent variables, we found statistically significant differences in relation to all constructs. As shown in Table II, respondents in group where the Focal firm reputation is ranked first, perceived higher levels of project capabilities, relational capabilities, product capabilities, price competitiveness, customer satisfaction and repurchase intentions. All differences were significant at $p < .05$.

Insert Table II Here

B. Structural Model Results and Hypothesis Tests

The structural model was evaluated on the basis of the R^2 values for the dependent constructs, the size, t-statistics and significance level of the structural path coefficients (based on 5000 bootstrapping runs), and the Stone-Geisser Q-square test for predictive relevance

(Hair et al., 2013). The Stone-Geisser test of predictive relevance was performed to assess model fit in PLS analysis (Geisser, 1975; Stone, 1974). Producing omission distances of 10 and 25 produced similar results, indicating that the estimates were stable. The communality Q-square was greater than 0 for customer satisfaction and repurchase intentions suggesting that the proposed research model had good predictive ability. The structural model explained 53.5% of the variance in customer satisfaction and 53.7% in repurchase intentions.

Insert Table III Here

The results pertaining to hypotheses H1-H6 are shown in Table III and relate to the overall sample (n=491). Project capabilities and relational capabilities demonstrated significant positive relationships with customer satisfaction ($\beta = .18$, $t = 4.02$; $\beta = .53$, $t = 13.10$) supporting Hypothesis H1 and H2. However, product capabilities ($\beta = .07$, $t = 1.34$ n.s.) did not have a significant relationship with customer satisfaction, rejecting Hypothesis H3. The size of the beta for the relational capabilities-satisfaction relationship clearly demonstrates that relational capabilities are the most important predictor of satisfaction relative to project capabilities and product capabilities. We provide our insights into this finding later in our discussion. Price competitiveness demonstrated a significant relationship with repurchase intentions ($\beta = 0.18$, $t = 4.45$), thus providing support for Hypothesis H4. Our findings also demonstrated a significant positive relationship between customer satisfaction and repurchase intentions ($\beta = .68$, $t = 23.25$). Hypothesis H5 is therefore supported.

There is also evidence of mediation, with customer satisfaction fully or partially mediating the influence of project and relational capabilities on repurchase intentions. We first examined direct paths from project capabilities and relational capabilities on repurchase intentions, in addition to the indirect or mediated paths. The direct link between project capabilities and repurchase intentions was not significant ($\beta = -.06$, $p > .05$). The direct relationship between relational capabilities and repurchase intentions also significant ($\beta = .39$, $p < .05$). Indirect effects were tested using bootstrapping based on Hayes' script output

(Preacher and Hayes, 2004) and both of the confidence intervals (Cis) for the indirect effects were significant. The findings suggest that customer satisfaction fully mediates the effect of project capabilities on repurchase intentions and partially mediates the effect of relational capabilities on repurchase intentions, thus supporting hypothesis H6. The results of these initial hypotheses using the whole sample broadly support the view that the firm's capabilities are important predictors of project outcomes and supports the conceptual development of the relationships between the main constructs.

Table IV shows the results of the moderation tests using the split sample for testing hypothesis H7. We loaded the two models and assessed the path coefficients as well as the t-values for the Focal firm reputation group, and Other firm group using the bootstrapping method in PLS. The explained variances and the t-values for the differences between the two corporate reputation groups using Chin's (2009) procedure are also shown. For the Focal firm reputation group, customer satisfaction was influenced by project capabilities ($\beta = 0.38$, $t = 5.81$), and relational capabilities ($\beta = 0.39$, $t = 6.06$). Customer satisfaction and price competitiveness were also significant predictors of repurchase intentions ($\beta = 0.56$, $t = 12.99$; and $\beta = 0.12$, $t = 1.98$). In the Other firm reputation group, customer satisfaction was influenced by project capabilities ($\beta = 0.26$, $t = 2.75$) and relational capabilities ($\beta = 0.46$, $t = 5.41$). As expected, customer satisfaction ($\beta = 0.66$, $t = 14.99$) and price competitiveness ($\beta = 0.19$, $t = 3.50$) were also significant predictors of repurchase intentions. The relationship between product capabilities and customer satisfaction was not significant in either group.

Insert Table IV Here

A comparison of the Focal firm reputation group with the Other firm reputation group with respect to the effects of both project capabilities and relational capabilities on customer satisfaction shows that there are several significant differences between the groups. This suggests that corporate reputation does indeed moderate the relationship between some of the drivers of customer satisfaction and repurchase intentions in such B2B projects. It can be seen

that while relational capabilities are the strongest predictor of satisfaction in both groups, project capabilities are more important where the Focal firm reputation is ranked number 1 in the industry, relative to an Other firm reputation being ranked number 1 (difference = 0.12, $t=2.01$). No other capabilities were significantly different at predicting satisfaction. For repurchase intentions, there were significant differences in both predictors. Price competitiveness was more influential in the Other firm reputation group relative to the Focal firm reputation group (difference = 0.07, $t=1.98$) in predicting repurchase intentions. Similarly, customer satisfaction was the strongest predictor in both groups, but it was more influential in the Other firm reputation group (difference = 0.10, $t=2.06$). Hypothesis H7 is partially supported.

VI. Discussion

The importance of the main independent variables in our research study have been identified in existing RBT and dynamic capabilities literature from strategic management. Our study highlights that these variables are also important in the project management domain. Project capabilities and relational capabilities were both shown to be significant predictors of customer satisfaction. Similarly, price competitiveness and satisfaction were shown to be strong and significant predictors of repurchase intentions. This validates similar findings from several other studies, (Davies & Brady, 2016; Beidenbach & Muller, 2012; Fang & Zou, 2009). These measurement model findings are important as they show model robustness when applied to a large-scale B2B project management context, and also confirm that these variables are important drivers of customer satisfaction and repurchase intentions for project managers.

In the study, we found that project capabilities were significantly and positively related to customer satisfaction. Our project capabilities construct was a formative measure consisting of project planning, execution, and delivery and our earlier discussion suggested

that this is an important ‘ordinary’ capability that must be delivered to achieve customer satisfaction. This was not surprising as customer satisfaction has consistently emerged as a key success factor in project management (Ika, 2009; Serrador & Turner, 2015). We also tested the direct path with repurchase intentions but found that there was no mediation effect between project capabilities and repurchase intentions. Since repurchase intentions are indicative of a longer term, on-going relationship between the supplier and customer, it confirms that project capabilities are more of an ordinary capability which have short term, transactional effects on satisfaction of a specific project. Specifically, the relationship between project capabilities and repurchase intentions was fully mediated by customer satisfaction.

One of the most interesting findings was the effect of relational capabilities, which we operationalized as a dynamic capability within our strategic management framework. Relational capabilities were strongly and positively related to customer satisfaction, ($\beta = 0.53$) and were by far the strongest predictor of all capabilities in their effect on customer satisfaction. In fact, they were three times stronger than project capabilities ($\beta = 0.18$). Similarly, for the split group samples of Focal firm reputation/Other firm reputation; relational capabilities were also the strongest predictor of satisfaction reinforcing their importance in this context. Again, this was not surprising and was consistent with some existing project management research (Shenhar, 2008; Svejvig & Anderson, 2015; Muller & Jugdev, 2012).

We also examined the relationships between product capabilities, customer satisfaction and repurchase intentions, and found weak or insignificant paths. Because of the generally acknowledged importance of product quality in large, complex HVAC systems, we expected product capabilities to be more strongly related to repurchase intentions. It appears that product capabilities are an ordinary capability, something a firm must do to “make a living” (Winter & Checkland, 2003). In contrast, we found that price had a significant

influence on repurchase intentions, confirming other research (Gill & Rameseshan, 2007). For large projects, price is typically negotiated and agreed upon before the start of the project. Therefore, price is an important driver of repurchase intentions, but not as important as customer satisfaction or relational capabilities.

Our third contribution involves the moderation effect of corporate reputation between the main capabilities and customer satisfaction and repurchase intentions (Barney, 1991; Grant, 1991; Teece et al. 1997). After project completion, a customer satisfaction survey was administered to the key contact in the customer organization. One of the questions asked the respondent to identify the “best building systems provider in your area”. About 80% of respondents identified the focal firm as “best”, and about 20% identified an “other” firm. Our results were enlightening as we found several moderation effects. Specifically, the firm’s reputation did moderate the project capabilities (ordinary) to customer satisfaction relationship, but not product or relational capabilities (dynamic) to customer satisfaction. These findings suggest that corporate reputation in this long-term B2B repeated interaction (the context of our study) is most helpful for project capabilities. As ordinary capabilities (doing things right), project capabilities represent a distinctive and superior way of deploying, allocating and coordinating resources to plan, execute and delivery projects (Brady and Davies, 2004). They are internally focused capabilities, and because they are tacit, they are less observable by a customer than dynamic capabilities, and therefore more prone to information asymmetry and/or lack of trust (Brady and Davies, 2004; Wang, 2014; Wu, Melnyk and Flynn, 2010). As such, a positive corporate reputation provides the trust and/or goodwill that a customer needs to fully be confident in the firm’s project capabilities, thus creating stronger customer satisfaction. The same effect may not happen for product and relational capabilities because the customer has more visibility into those capabilities and are better able to judge performance revealing lower information disparity between the buyer and supplier (Davis, 2014; Nayyar and Templeton, 1994).

Price competitiveness and customer satisfaction were also found to influence repurchase intentions, but the corporate reputation of the firm played a significant role in moderating this effect. For example, the price-repurchase intentions for the Other firm group had a path coefficient of 0.19, compared to 0.12 for the Focal firm group suggesting that the Other firm group is more price sensitive. It may be that the Other firm group awarded the project through competitive bidding, and the focal firm was the low bidder, although the respondent thought a competitor was better. Similarly, the two groups showed a significant difference between customer satisfaction-repurchase intentions. The Other group had a path coefficient of 0.66, compared to 0.56 for the Focal firm group and this difference was significant according to the Chin t-test. It appears that the Other group has a more transactional view of the project, focusing more on satisfaction. The Focal firm group may have a longer term, relational perspective, with satisfaction with an individual project being less important.

A. Managerial Implications

Relational capabilities (dynamic) are the most important predictor of customer satisfaction in our study. This suggests that dynamic capabilities are a direct response to constantly changing market conditions and highlight the need to be agile, flexible and responsive. Project managers should take more care in managing the client in terms of communication, problem solving and collaborative project issues (Aladag & Isik, 2020). Project capabilities (ordinary) appear to be more of a hygiene factor. Managing the project is necessary, but not sufficient, to achieve high customer satisfaction. However, not managing the project effectively will lead to dissatisfaction. This means managers should maintain their levels of project efficiency (time, budget and quality) in order to gain positive project outcomes, but high relational performance will lead to high customer satisfaction.

Repurchase intention is clearly an important variable and has been neglected in project management research. We have shown strong path coefficients that drive repurchase intentions in project contexts with high R-squared statistics. The typical transactional nature of projects being temporary organizations with deliberate end-point needs to be reassessed by managers. In some project management situations, there are on-going business relationships that last for many years. Future purchases and also positive word-of-mouth referrals from the client through testimonials are additional factors that should be considered by project managers.

From the findings on corporate reputations, we found that corporate reputation played a significant moderating influence on the relationships between the firm's project capabilities and customer satisfaction; and between price competitiveness and customer satisfaction on repurchase intentions. We suggest that because project capabilities are mainly internally focused and less visible to the client, a moderating effect exists between corporate reputation and satisfaction. A good corporate reputation provides the trust and/or goodwill that a customer needs to fully be confident in the firm's project capabilities, and thus creates customer satisfaction. In longer-term client-company relationships, good corporate reputation leads to less concern about informational asymmetries and lack of visibility, and thus increased confidence in a firm's project capabilities. The same effect does not happen as much for relational and product because the customer has more visibility into those capabilities and can judge for themselves based on direct observation or from testimonials. In addition, project managers may wish to assess differently how they negotiate the price on projects, with respect for on-going relationship management, when clients perceive they are the superior company or not. Certainly, it seems that clients who see other companies are better appear to be more price sensitive.

IBM conducts a global survey of roughly 2000 CEOs every two years or so (www.IBM.com C-suite study 2018). IBM examines the challenges faced by CEOs and the

strategies that the CEO plans to pursue to face these challenges. The summary conclusions from the 2018 study have direct implications for our study and for project engineers and managers. A few years ago the term “age of disruption” was used to describe the business environment. CEOs now see disruption as the norm, an on-going strategic challenge. The CEOs see collaboration across the business ecosystem as essential to the constant reinvention of the organization and to creating new business platforms. This collaboration is with customers to identify un-met needs and to co-create new solutions. The collaboration is also with suppliers and even competitors to amplify innovation of products, services, and processes. This collaboration requires a new focus on developing a corporate innovation culture that empowers employees to experiment and try new ideas and new ways of doing things.

In a project management context, project engineers and managers are the sharp point of the spear in collaborative problem solving with customers. Customers expect project engineers and their associated firms to have certain organizational ability and experience (Aladag & Isik, 2020). And as such project engineers must be able to manage customer’s risk and uncertainty with an open-minded and proactive approach in developing new, customized solutions. In the terms of Teece (2007), the engineer must reconfigure the firm’s assets to create better value for customers. This requires engineers to have good interpersonal skills to develop and maintain customer relationships. While an engineer may have good technical skills, it appears that the “soft” people skills (communication, team building, problem solving) are becoming even more important. A project engineer’s technical skills may just be “hygiene” factors that the customer expects, customer delight may flow from relationship development, communication, and collaboration.

VII. Conclusions and Limitations

The related subjects of Resource Based Theory (RBT) and its more recent extension of dynamic capabilities have become a very popular area for scholarship in business (Di Stefano et al., 2014; Kozlenkova et al., 2014). The goal of this paper was to extend RBT and dynamic capabilities theory to the project management literature, and validate or explicate how the main concepts can be applied to large B2B projects. We were fortunate to collect data from a large sample of B2B projects including the satisfaction with those projects.

While dynamic capabilities are externally oriented and drive strategic change in organizations, there are other capabilities that are non-dynamic or “ordinary” capabilities, and how the firm “makes a living” (Winter & Checkland, 2003). These ordinary capabilities are important and must be done well for a firm to be competitive. These ordinary capabilities are subject to continuous improvement and “best practices” so they do change and evolve. But ordinary capabilities do not drive strategic change in organizations, they are internally focused (Helfat & Winter, 2011). In the context of our study, project capabilities consisted of project planning, execution, and delivery, or how to conduct a project correctly. Hence, project capabilities are clearly ordinary capabilities.

Our study also found that relational capabilities had a strong and significant influence on both customer satisfaction and repurchase intentions. This finding appears to confirm the work of Augier and Teece (2009) who refined the dynamic capabilities concept to include “dynamic fitness”, which was a firm’s ability to adapt to the external environment, markets, and customers. Thus, in their view, dynamic capabilities are externally focused capabilities that extend beyond a firm’s boundaries and ‘sense’ changes in the external environment. In essence, dynamic capabilities drive change in the organization in response to changes in the external environment. In our study, relational capabilities fit Augier and Teece’s (2009) definition of dynamic capabilities as they are the “relational” link between project managers and customers.

As with every research, this study has some limitations. First, a potential limitation of the study is that findings are applicable only within project-management contexts. Therefore, generalizations should be made with caution. Future research should investigate the relevance of each construct and its dimensions of the model examined in this study across other business contexts. Since the relational capabilities are fundamental to sensing, seizing, and reconfiguring the context within which they are examined (at a dynamic capabilities level) becomes important and may affect business performance. Another limitation of this study is that it uses uneven groups of sample sizes. Future research should take this into account while attempting to provide further confirmation of our results. Although our research provides valuable insights for both researchers and practitioners, we used a categorical variable to administer the supplier's reputation, which could pose measurement and operationalization challenges for future researchers. Overall, our study addressed the need for a broader model that examines the antecedent factors as well as the moderating role of supplier's reputation in relation to repurchase intentions

Figure 1. Proposed Model for Hypotheses Testing



Table I. Model Validation Results

	Focal Firm Reputation Group (N=250)			Other Firm Reputation Group (N=241)		
CONSTRUCT NAME AND ITEMS	Loading	IC	AVE	Loading	IC	AVE
Project Planning Capabilities		0.92	0.74		0.88	0.64
Advice and suggestions	0.83			0.81		
Attending meetings/site visits	0.88			0.84		
Knowledge and expertise	0.90			0.89		
Company's specifications	0.83			0.83		
Project Execution Capabilities		0.94	0.71		0.93	0.68
Creating and communicating a reliable project schedule	0.86			0.80		
Meeting milestones as specified by the project schedule	0.87			0.86		
Resources to complete the project	0.87			0.84		
Communicating effectively throughout the phases of the project	0.84			0.86		
Coordinating work with other contractors	0.85			0.86		
Quality of the installed systems	0.85			0.74		
Project Delivery Capabilities		0.92	0.65		0.88	0.56
Checkout and demonstration	0.83			0.87		
Start-up problems	0.82			0.83		
Warranty process	0.77			0.69		
Resolving warranty issues	0.80			0.78		
Final documentation	0.79			0.69		
Building control problems	0.83			0.84		
Relational Capabilities		0.86	0.66		0.87	0.69
Quality of business relationship	0.84			0.83		
Resolution of issues	0.71			0.79		
Establishing fast, accurate two-way communication	0.88			0.88		
Product Capabilities		0.92	0.79		0.88	0.73
Overall product quality	0.92			0.90		
Product dependability	0.90			0.90		
Product innovativeness	0.84			0.75		
Price Competitiveness		0.89	0.74		0.90	0.76
New system prices	0.92			0.88		
Replacement parts prices	0.79			0.85		
System maintenance prices	0.86			0.88		
Customer Satisfaction		0.83	0.72		0.87	0.77
Satisfied in doing business	0.89			0.89		
Met expectations	0.78			0.87		
Repurchase Intentions		0.86	0.76		0.91	0.84
Likelihood choose again	0.91			0.84		
Willingness to recommend	0.83			0.89		

Notes: **IC**: Internal consistency; **AVE**: average variance extracted

Table II. Descriptive Statistics and Correlation among Construct Scores

Focal Firm Reputation Group	1	2	3	4	5	6
1. Project Capabilities	n.a.					
2. Relational Capabilities	0.68	0.81				
3. Product Capabilities	0.54	0.40	0.89			
4. Price Competitiveness	0.18	0.09	0.09	0.86		
5. Customer Satisfaction	0.67	0.67	0.38	0.05	0.85	
6. Repurchase Intentions	0.52	0.55	0.44	0.15	0.56	0.87
Mean	3.82	4.20	4.09	2.44	3.99	4.41
SD	0.65	0.66	0.66	0.54	0.58	0.57
Other Firm Reputation Group	1	2	3	4	5	6
1. Project Capabilities	n.a.					
2. Relational Capabilities	0.56	0.83				
3. Product Capabilities	0.51	0.48	0.85			
4. Price Competitiveness	0.14	0.14	0.04	0.87		
5. Customer Satisfaction	0.53	0.61	0.37	0.08	0.88	
6. Repurchase Intentions	0.43	0.65	0.38	0.24	0.67	0.92
Mean	3.14	3.37	3.53	2.17	3.27	3.58
SD	0.71	0.81	0.78	0.60	0.72	0.81

Notes: S.D. = Standard Deviation; n.a. not applicable. The bold numbers on the diagonal are the square root of the Average Variance Extracted. Off-diagonal elements are correlations among constructs.

Table III. PLS Results of the Full Sample (H1-H6)

	Path Coefficient	<i>t</i> -value	Hypothesis support
<i>Effects on Customer Satisfaction</i>	R² = 0.535		
Project Capabilities	+0.18	4.02***	H1 Yes
Relational Capabilities	+0.53	13.10***	H2 Yes
Product Capabilities	+0.07	1.34 ^{ns}	H3 No
<i>Effects on Repurchase Intentions</i>	R² = 0.537		
Price Competitiveness	+0.18	4.45***	H4 Yes
Customer Satisfaction	+0.68	23.25***	H5 Yes
Customer Satisfaction Mediation <i>Project to Repurchase (Full)</i> <i>Relational to Repurchase (Partial)</i>			H6 Yes

Note: * $p < .05$, ** $p < .01$, *** $p < .001$, **ns** not significant

Table IV. PLS Results of the Corporate Reputation Groups (Hypothesis H7)

	Focal Firm Reputation n=250			Other Firm Reputation n=241			Diff in path coefficient	t-value
	Path Coefficient	t-value	Hypothesis Support	Path Coefficient	t-value	Hypothesis Support		
<i>Effects on Customer Satisfaction</i>	R² = 0.54			R² = 0.43				
Project Capabilities	+0.38	5.81***	Yes	+0.26	2.75**	Yes	0.12	2.01*
Relational Capabilities	+0.39	6.06***	Yes	+0.46	5.41***	Yes	-0.07	0.67 ^{ns}
Product Capabilities	+0.01	0.17 ^{ns}	No	+0.01	0.16 ^{ns}	No	0.00	0.00 ^{ns}
<i>Effects on Repurchase Intentions</i>	R² = 0.33			R² = 0.49				
Price Competitiveness	+0.12	1.98*	Yes	+0.19	3.50***	Yes	-0.07	1.98*
Customer Satisfaction	+0.56	12.99***	Yes	+0.66	14.99***	Yes	-0.10	2.06*

Note: * $p < .050$, ** $p < .01$, *** $p < .001$, n.s. not significant

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