END USERS' SENSE OF MEANINGFULNESS OF WORK: ROLE OF SUPPLIER FIRM BRANDS AND ASSOCIATED BEHAVIORS

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Abstract: In summary, this research makes several key contributions to the B2B marketing literature. First, it illuminates how a key organizational behavior concept, meaningfulness of work, and its associated theory, logotherapy (Frankl, 1959), can be applied to brand attachment in a work context. Second, it highlights the role of instrumental value in the development of brand attachment in a distinctive setting: the completion of tasks at work. More concretely, it outlines the unique role of end users within the customer firms and how the theoretical lens of logotherapy provides a way to understand how end users find meaning on their job and how they develop strong feelings for supplier firm brands because of the key role supplier firm brands play in completing tasks at work. It is important to note that the end user would have to see the brand as being inextricably tied to doing the job and specifically doing the job well. Therefore, only certain work brands would enter into this domain of meaning creation for an end user, those with strong instrumental value. In addition, supplier firm brands may also be a source of shared meanings for end users as a whole and a way for them to connect with other end users through those shared meanings or values. Finally, the results from the qualitative and quantitative findings suggest interesting avenues for future research. For example, the qualitative results provide key insights into how supplier firm marketing activities influence end users and provide a basis for the development of strong connections to supplier firm brands, such as brand attachment. In addition, the post-hoc structural equation model suggests that ELM may be a useful theory to understand how the meaningfulness of work for an individual may influence how she or he evaluates brands encountered on the job as part of the process of the development of brand attachment.

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CHAPTER I

INTRODUCTION: WHAT IS IT ABOUT END USERS?

"…le travail éloigne de nous trois grands maux : l'ennui, le vice, et le besoin."

"…work keeps at bay three great evils: boredom, vice, and need."

- Candide, Voltaire

Humankind is unique on earth in its search for meaning in life. This search for meaning is both retroactive – trying to comprehend what happened – and prospective – trying to understand what direction life is going to take (Seligman et al., 2016). It manifests itself at an individual level, at a group level, and at the intersection between the two. Meaning and the search for meaning is an important driver or antecedent of many human endeavors. Indeed, most of academia, including marketing research, is focused on understanding the why, the meaning behind the phenomena of interest or, in more academic terms, developing theory. Research on brands in the marketing discipline has revealed that brands play a key role in constructing meaning for both individuals (Elliott and Wattanasuwan 1998, Holbrook and Hirschman 1982) and institutions (Joy et al. 2014, Ashforth and Gibbs 1990). The role of brands in a B2B context at an institutional level is starting to receive more academic attention (Brown et al 2011, Seyedghorban et al 2016) as is the role of the workplace in the well-studied possession-and-the-extended-self literature (Tian and Belk 2005). What is missing in the literature, however, is the role that brands on the job can play in the search for meaning for individuals and the antecedent to strong brand connections, such as attachment. The stakeholder group that is of interest for this research is end users, that is, the individuals that use the supplier firm brands on a daily basis to perform their job requirements.

Job Meaningfulness and Implications for End Users in a Work Environment

For definitional purposes for this research, ends users are the individuals who use the supplier firm's product day-to-day as part of their job. In other words, the end user is the person within the firm who actually uses the product to complete tasks at work, although the product would likely be purchased at the organizational level. And, in most cases, end users are a distinct group within the customer organization. The central question for this research is: if work brands come to be important in one's life, how and why does this occur with individuals (end users) both on the job and off the job? The answer to this question lies both in the discovery of meaning in one's life and in the particular context of end users and their work environment. Or in other words, "…in the search for meaning, context is everything" (Allen et al. 2008, p. 784).

In this case, the context of an individual's search for meaning in life is the unique role that work can play. Logotherapy, developed by Viktor Frankl, despite its marketing-friendly name, has not been applied as a theory in marketing research to the knowledge of this author, but it offers a theoretical lens through which one can understand why work is so important to individuals and as an extension why work brands have the potential to be so significant. According to logotherapy, there are three ways to find meaning in life. Frankl suggests that the first way is the most discernable: "by creating a work or doing a deed" or essentially "by way of achievement or accomplishment" (Frankl 1959, p. 111). [1] This search for meaning from work determines core aspects of an individual's identity and a sense of a fulfilled life. In fact, work provides much of the fabric of meaning in one's life (Russo et al. 2010). Many if not most people describe and define themselves in terms of their

[1] Frankl explains the other two ways: "(2) by experiencing something or encountering someone; and (3) by the attitude we take toward unavoidable suffering." (Frankl 1959, p. 111)

work. As put succinctly by Dutton et al. (2010), “Work is a pervasive life domain and a salient source of meaning and self-definition for most individuals” (p. 265).

Indeed, the context of work and the meaning end users find at work lay the foundation for the unique role that supplier firm brands can play in creating meaning for end users. They can play a transformative role for end users because they provide the tools that allow end users to accomplish specific tasks and achieve success at work overall. In other words, supplier firm brands become part of one’s own narrative because they deliver real benefits on the job – enhanced productivity – that leads to meaning outside of oneself. End users come to rely on brands and develop strong connections to brands, such as brand attachment, precisely because of the utility that the brands provide on the job. Park et al (2010) expressly outlines how connection to the self and thus brand attachment arises from the instrumental value of the brand (p.2).

Logotherapy explains how an individual can find meaning in her/his life at work, in a job well done, that is, with the completion of tasks and an outward focus. Indeed, Frank (2014) argues: “For it is a characteristic constituent of human existence that it transcends itself, that it reaches out for something other than itself” (p. 37). Current research extends the logic of logotherapy by exploring how supplier firm brands can help end users find meaning in work by completing tasks and therefore ascribe meaning to their lives.

Importantly, Frankl also explains that meanings are unique to the individual. However, in certain contexts, such as work, shared meanings amongst individuals can develop and these shared meanings can be understood as values. In Frankl’s words, “one may define values as those meaning universals which crystallize in the typical situations a society or even humanity has to face” (Frankl 2017, p. 37). In addition to providing a personalized meaning to an individual end user by helping her/him with tasks on the job, the supplier firm brand can also provide shared meaning amongst a group of end users experienced as a set of values.

Brands and Individual Meaning Making: How Work Brands Are Different

Within a B2B environment, end users use products at work analogously to how consumers use products at home, and it is unsurprising that they can develop strong feelings and preferences for the products they use at work in a way similar to the way consumers do for products they have chosen to purchase. Indeed, the brand literature on consumer products provides insight into how end users can also develop strong connections to brands used in a work setting (i.e., employees are people—affection or disdain for a product would not be limited to only those that are purchased for individual consumption).

Within the consumer domain, one striking example of how strongly a consumer feels about a brand is brand tattoos, and indeed images of consumer brand tattoos are easy to find on the Internet. What drives a consumer to literally brand him or herself? That question has been answered to a large degree in the brand community literature, starting with the seminal piece by Schouten and McAlexander on the Harley Davidson brand community (1995). In this article the authors describe how modern consumers create their own categories of consumption in their search for meaning in their lives. A tattoo is one visible "indicator of commitment" to the group's consumption values (p. 49) and tangible evidence of inclusion in the group. Given that brand commitment is a recognized consequence of brand attachment (Thomson et al 2005), it follows that brand attachment could lead to brand tattoos as well as other brand-oriented behaviors (Harmeling et al. 2017). Similarly, Belk's ground-breaking 1988 article, "Possession and the Extended Self," provides insight into how a consumer progresses to the decision to tattoo a brand on him or herself: "several processes [are] involved in self-extension. One process is the initial incorporation of objects into our extended self." (p. 139) In the case of a tattoo, the object is literally incorporated into the self and can be a constant reminding of brand meaning to the individual and others.

Not surprisingly, the phenomenon of branding oneself with tattoos is also found in the B2B space. There are examples of end users in the B2B context who choose to tattoo supplier firms'

brands on their bodies. In fact, current research is inspired by images of oil rig workers with tattoos of the rigging equipment manufacturer's logo on their bodies, an interesting phenomenon given that the oil rig workers neither own the rigging equipment nor were the decision makers when it came to purchasing the equipment. And yet, they feel such strong attachment to the rigging equipment brand that they literally incorporate it onto their bodies, a near constant sign of their chosen profession. A quick Internet search finds many other examples of individuals who choose to tattoo brand logos from their job on their person, from Caterpillar Equipment tattoos to Rolls-Royce airplane engines tattoos (see Appendix C).

In what ways is brand meaning-making different in a B2B environment versus a B2C environment? In what ways it is similar? In a B2B environment, the individual end user utilizes the product but would typically not be the same individual who originally selected the product, and yet evidence (tattoos, brand clothing) exists that end users are becoming emotionally attached to the supplier firm's brand in a way similar to the way in which a consumer becomes attached to a brand like Harley Davidson. An additional aspect of the work context, however, may be the central role work often plays in providing meaning to one's life; experiences at work lead to development of one's life story and products used at work may figure as a predominant part of the end user's life story (Tian and Belk 2005). In short, for many, if not most individuals, work is a core component of how individuals think of themselves and define meaning in their lives (Shepherd and Williams 2018). Frankl explains that for one patient, "it was clear that his will to meaning was frustrated by his vocation, and he actually longed to be engaged in some other kind of work… he did so with most gratifying results" (Frankl 1959, p. 102). Fundamentally, supplier firm brands offer functionality that allows end users to find meaning by achieving their goals at work – completing tasks on the job. Thus, for work brands to provide meaning, the end user would have to see the brand as being inextricably tied to doing the job and specifically doing the job well, limiting the applicable to certain types of brands.

End Users as Distinctive Influencers in Business-to-Business Markets

Marketing research in a B2B context has typically focused on the relationships between firms and/or between the supplier firm and decision makers in the customer firm (Palmatier et al. 2006, Palmatier et al. 2013, Chakravarty et al. 2014). Notwithstanding past research, the customer firm is composed of disparate groups, and in fact industry practice in many companies, such as Voice of the Customer activities (Coviello and Joseph 2012), differentiates between the groups in the customer firm with targeted marketing activities. In fact, some marketing practitioners in B2B develop key strategic initiatives solely for end users. As one marketing manager interviewed for this research explained succinctly, "Without them [the end users], there is no product."[2] Why are the final end users of the supplier firm's product of particular interest? In the words of one marketing executive,[3]

> Purchasing people only buy what they are told to go buy, and so the engineers will generally get with the end users to start to build the specifications for whatever it is they are going to approve or allow on a job site, and so the end users are the guys that are actually going to use it and have a good way to provide insight into those groups that create those specifications.
>
> [End users'] decisions have lots of sway within the organizations. So while they may not be the decision makers, I think they certainly have veto power over products that they don't like, and I think that they provide a lot of influence over what ultimately gets purchased.

Although there is some academic research to bolster this marketing executive's claims about the importance of end users in the customer firm's decision-making process (e.g., Anderson and

[2] Director of Marketing, privately held industrial company, annual revenue $500 million+, interview conducted November 30, 2017.
[3] Vice President of Marketing, privately held, mid-size North American firm (annual revenue approximately $400 million), interview on November 22, 2015.

Chambers 1985, Silk and Kalwani 1982, and Tanner 1998), the research is sparse and no longer reflects best practices in industry. For example, Anderson and Chambers (1985) outline the potential role of end users by focusing on individual work behavior and use the term "user-decider" (p. 14), but do not focus on what drives end users' preferences in particular. Similarly, Silk and Kalwani (1982) identify two groups: "managers" and "users" (p. 171); however, their emphasis is on how the different groups perceive relative influence of the different participants in the buying process and overall consensus. Finally, Tanner (1998) looks at how users' satisfaction with the product influences the buying process but does not look at the ongoing relationship dynamic between the end user and the supplier firm. This lack of theory-based investigation creates a gap in the current literature on relationship marketing in the B2B environment--we need a better understanding of the meaning supplier firm brands provide to end users and how supplier firms can best reach end users.

Until fairly recently – less than 15 years ago – marketing practitioners in a B2B context did not have systematic ways to identify individual end users, especially within large customer organizations, much less target them. However, given the new possibilities provided by new media and technologies, it is feasible to more accurately target and connect with distinct groups within the customer firm in general and end users more specifically. As Rust et al. 2010 note:

> …never before have companies had such powerful technologies for interacting directly with customers, collecting and mining information about them, and tailoring their offerings accordingly. And never before have customers expected to interact so deeply with companies, and each other, to shape the products and services they use (p. 29).

Analytical Approach and Contributions

Given the relative lack of research on this stakeholder group and to avoid preconceptions, the current work began with a qualitative, grounded theory approach: a series of interviews of end users,

specifically the operators of construction equipment and hospital nurses. Grounded theory allows the researcher to start with individual experiences to develop a conception of social psychological themes grounded in the meanings that the individuals attribute to these experiences and associated behavior patterns (Charmaz 2014, Glaser and Strauss 1967). In addition, cognizant of Reibstein's et al (2009) criticism of much of market research, specifically that there was a "growing gap between the interest, standards, and priorities of academic marketing and the needs of marketing executives" (p. 1), marketing managers from B2B firms were also interviewed and their responses analyzed using the same grounded theory methods.

A combination of the findings from the qualitative interviews and a literature review on meaningfulness at work and brand meaning-making reveals gaps in existing knowledge on end users and the role of supplier firm brands. Using these findings and extending them based on insights from logotherapy, current research proposes a model of the key role supplier firm brands can play in helping end users find meaning in work. The proposed model and hypotheses explore how supplier firms can use marketing activities to differentially target end users based on how meaningful they find work and their experience with supplier firm brands on the job. As explained by Frankl (2014 p. 37), meanings can be considered values when a group shares the same meaning. In short, supplier firm brands can also provide shared meaning – values – to end users as a group.

This research thus aims to answer the following questions:

- Under what conditions do end users develop strong connections with supplier firm brands, such as brand attachment?
- How does meaningfulness of work for the individual relate to the development of supplier firm brand attachment?
- How does supplier firm brand performance on the job relate to end users' feelings of attachment to the supplier firm brand?

- How might marketing activities be used to best reach end users?
- What are end users' behavioral intentions based on their attachment to supplier firm brands?

In the next chapter, I first offer a summary of key concepts from Frankl's logotherapy and provide literature reviews on meaning and meaningfulness at work and meanings from brands. Next, to develop my hypotheses, I utilize findings from my qualitative research with end users and marketing practitioners combined with insights from literature. In the following chapter, I outline the research methodology, explaining the context of the survey experiment, providing the scales, and putting forth expected quantitative strategies to analyze the final data. In the appendices, I include interview guides from the qualitative research and images from the internet of end users who tattooed supplier firm brands on their bodies.

CHAPTER II

LITERATURE REVIEW AND FINDINGS FROM QUALITATIVE RESEARCH

In this chapter I will first provide an overview of logotherapy then review the literature on meaning and meaningful in work and subsequently review the literature on brand meaning-making. Next, I will present the results from the in-depth interviews of end users and marketing practitioners. Relaying on the findings from the qualitative interviews and current literature, I develop hypotheses for the quantitative model based on the findings from the qualitative interviews and current literature.

Qualitative interviews were conducted because of the relative lack of research on end users and to avoid preconceptions. In addition, in recognition of Reibstein's et al (2009) criticism of much of market research, specifically that there was a "growing gap between the interest, standards, and priorities of academic marketing and the needs of marketing executives" (p. 1), marketing managers from B2B firms were also interviewed.

Overview of Meaning, Work, and Logotherapy

Frankl first coined the term logotherapy to describe a method of psychotherapy to heal patients by helping them understand the meaning of their specific and unique lives. Frankl chose "logotherapy" because of the definition of the Greek term "logos," which is meaning (Frankl 1959, p. 98). Logotherapy is literally "healing through meaning" (Frankl 1970, p. xviii). Although precepts from logotherapy have rarely been applied in marketing research, it is not a coincidence that marketing is concerned with logos, because logos are symbols of companies that can be understood as representing "the set of experiences and associations that consumers have acquired over time as a result of organisations' activities" (de Chernatony et al 1998, p. 427). Ultimately a key area of concern for marketing is understanding the individual's unique meaning experienced with a set of products or services. Logotherapy provides a useful theoretical lens for marketing and B2B marketing in particular because it explains how individuals find meaning in their lives in general and at work in particular.

For Frankl, man's search for meaning is an active search and in fact is the primary motivation for all actions. In other words, people are actively looking for meaning in their lives, in fact striving for it, rather than simply stumbling upon it. He explains that the search for meaning is the goal and that this search can lead to positive outcomes. Frankl argues that many individuals confuse the outcomes of the search for meaning as actual goals in life. Take happiness for example. Striving for happiness is never truly successful because happiness comes from finding meaning, because in fact one must have meaning to be happy. As Frankl explains:

> "Normally pleasure is never the goal of human strivings but rather is, and must remain, an effect, more specifically, the side effect of attaining a goal. Attaining the goal constitutes a reason for being happy. In other words, if there is a reason for happiness, *happiness ensures,* automatically and spontaneously, as it were.

> And that is why *one need not pursue happiness,* one need not care for it once there is a reason for it" (Frankl 2014, p. 19).

For a work context, therefore, it is important to consider that end users are looking for meaning as a general drive in life and then finding it at work, rather than simply going to work and incidentally finding meaning.

For Frankl work is one of three avenues to finding meaning in life. Work, he concedes is the most direct and most accessible way to find meaning for most people. At work, one can focus on doing a task or creating something and striving toward this type of outcome provides the individual with a sense of meaning. It is important for current research that work is the most accessible way for an individual to find meaning, because it implies that many people satisfy their search for meaning at work. The other two avenues are more abstract and less obvious for an individual to understand. Frankl summarizes them as "(2) by experiencing something or encountering someone; and (3) by the attitude we take toward unavoidable suffering" (Frankl 1959, p. 111). The second avenue is essentially finding meaning through the experience of love or connecting with another person. This entails being oriented towards others and serving others. Frankl explains, "Actually man does not care for pleasure and happiness as such but rather for that which causes these effects, be it the fulfillment of a personal meaning or the encounter with a human being" (Frankl 2014, p. 25). At its core, logotherapy suggests that one can find meaning by focusing outside of oneself, either by completing tasks or by reaching out to other people or being oriented towards others.

It is important to distinguish logotherapy's "other-orientation" from that of social identity theory. Social identity can be defined as "the individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership" (Tajfel 1972, p. 292). In contrast to Frankl's logotherapy, social identity theory

focuses on the self in reference to a group, and a key component of social identity theory is that the reference group can change depending on the context. Individuals are assumed to have multiple social identities, and these identities link them to both other people and the outside world more broadly (Hitlin 2003). For Frankl, a key to finding meaning is in fact forgetting oneself. He argues,

> the self-transcendence of human existence'… denotes the fact that being human always points, and is directed, to something or someone, other than oneself – be it a meaning to fulfill or another human being to encounter. The more one forgets himself – by giving himself to a cause to serve or another person – the more human he is and the more he actualizes himself… In other words, self-actualization is possible only as a side effect of self-transcendence (Frankl 1959, p. 110).

This is in stark contrast to social identity theory which essentially treats others as accessories to the individual's identity and only important to the degree that they add to the individual's sense of self. In social identity theory, the social identity has meaning only to the degree that it is important to the individual. In logotherapy, meaning is derived from actions outside of oneself and shared meanings amongst individuals for the first two paths to meaning.

The third avenue for finding meaning, finding meaning through suffering, is the hardest avenue to understand and admittedly the least related to the work environment context. In short, Frankl argues that enduring suffering with grace is a path to meaning. He states:

> There are opportunities in which one is cut off from the opportunity to do one's work or to enjoy one's life; but what never can be ruled out is the unavoidability of suffering. In accepting this challenge to suffer bravely, life has a meaning up

> to the last moment, and it retains this meaning literally to the end. (Frankl 1959, p. 114).

Frankl understood this insight from personal meaning derived from having spent time in a German concentration camp during World War II.

In discussing the challenge of being a prisoner, Frankl has several insights about unemployed individuals as well, which also elucidate why work is so important and meaningful:

> A man who could not see the end of his 'provisional existence' [in the prisoner camp] was not able to aim at an ultimate goal in life. He ceased living for the future, in contrast to a man in normal life. Therefore the whole structure of his inner life changed; signs of decay set in which we know from other areas of life. The unemployed worker, for example, is in a similar position. His existence has become provisional and in a certain sense he cannot live for the future or aim at a goal (Frankl 1959, p. 70)

Frankl has highlighted what many experience when they are out of work: a lack of direction leading to a loss of meaning in life. He also focuses on the experience of losing a job in terms of the psychological experience of loss of meaning at an individual level.

Importantly for today's marketing research and in particular for research streams based on Service-Dominant Logic and the importance of customer experience (Vargo and Lusch, 2004 and 2008, Lusch and Vargo 2006), Frankl highlights the fact that meaning is unique to the situation and unique to the individual experiencing it. He expounds, "Meaning is relative in that it is related to a specific person who is entangled in a specific situation" (Frankl 2014, p. 36). For the purposes of this research, therefore, it is important to focus on how individual end users experience their work environment and how they find meaning in work, potentially through

brands on the job assisting in task completion. Hence the interest in a grounded theory approach with qualitative interviews to extend and deepen existing theory on brands in a work context.

This research posits that supplier firm brands are distinct from consumer brands because they offer a path to meaning to the individual end user by assisting the end user complete tasks at work, essentially helping the end user do her/his job well. The end user develops strong emotions for the supplier firm brand and may identify with the supplier firm brand because the brand symbolizes a job well done. Thus, the supplier firm brand's meaning is built upon the unique experiences of the individual end user at work.

Nonetheless, Frankl's assertions on man's search for meaning also allow for the possibility of shared meaning among individuals. His explanation of how shared meanings can become values are of particular interest for end users in a work environment: While continuing to assert that meanings for individuals are unique, he elucidates:

> From what I have said, it follows that there is no such thing as a universal meaning of life but only the unique meanings of individual situations. However, we must not forget that among these situations there are also situations which have something in common, and consequently there are also meanings which are shared by human beings across society and, even more, throughout history. Rather than being related to unique situations those meanings refer to the human condition. And these meanings are what is understood by values. So that one may define values as those meaning universals which crystallize in the typical situation society or even humanity has to face (Frankl 2014, p. 37).

Shared meanings or values may arise in any of logotherapy's three avenues for meaning – all love stories share certain facets in common and even extreme suffering such as found in the concentration camps of Frankl's youth have common elements. However, work has even more

potential for shared meaning. Indeed, in today's society, the work environment is a context that is on the one hand unique to the person experiencing it, for precisely the reasons cited by Frankl, that is, the uniqueness of each person, and yet on the other hand one that other individuals also share. Here again, supplier firm brands can provide a unique benefit to end users by embracing and endorsing values on the job. In this way, the supplier firm brand can offer shared meanings or values to a cohort of end users. Indeed, Frankl describes the "definitely human capacity… of creating and using symbols" (Frankl 2014, p. 25). Frankl also continues to assert the individual's freedom. He states, "He [man] is always free to accept or reject a value he is offered by a situation" (Frankl 2014, p. 39). For the purposes of this research, this explains why end users operating under exactly the same work conditions can have varying degrees of connections to supplier firm brands.

In summary, the theoretical lens of logotherapy provides a way to understand how end users find meaning on their job and how they develop strong feelings for and identify with supplier firm brands because of the key role supplier firm brands play in completing tasks at work. It is important to note that this process would not be operative for all brands in a work environment. Following the logic of logotherapy and the role of finding meaning at work, the end user would have to see the brand as being inextricably tied to doing the job and specifically doing the job well. Therefore, only certain work brands would enter into this domain of meaning creation for an end user, those with strong instrumental value. In addition, supplier firm brands may also be a source of shared meanings for end users as a whole and a way for them to connect with other end users through those shared meanings or values. The shared values are another mechanism by which end users may come to have strong feelings for or identify with supplier firm brands.

Literature on Meaning and Meaningfulness at Work

Within organization behavior literature there are two broad literature streams that explore meaning at work (see Table 1: Meaning of Work and Meaningfulness at Work). One considers meaning as a path to a positive work identity (Wrzesniewski et al 2013, Wrzesniewski and Dutton 2001, Grant 2007). For these authors, work is one of the main paths to having a positive self-image. In other words, the meaning of work for an individual can drive how the individual constructs his or her identity. For example, Wrzesniewski and Dutton (2001) define the meaning of the work as "individuals' understandings of the purpose of their work or what they believe is achieved in the work." Meaning is based on the consequence of work rather than the meaning the individual finds in work as in logotherapy.

With this definition of meaning of work, it is logical that individuals use the meaning of work to define themselves and their self-worth. In the words of Dutton et al. (2010), "Work is a pervasive life domain and salient source of meaning and self-definition for most individuals." The difference that work makes in the world and to others is the key to having positive self-worth. Work is thus a pathway to positive self-image and key social identity. Dutton et al. (2010) highlight that that individuals use work identities, particularly positive work identities to develop personal identities (self-regard) as well as social identities (membership in a group). These are related but distinct. In short, the work identity of the individual is the key construct. In fact, meaning of the work may be included in the conceptual development but work identity is what is typically measured (Paullay et al. 2004, Diefendorff et al. 2002, Michel et al 2011).

As illustrated in Table 2: Measuring Meaning and Meaningfulness at Work, the measurement scales for work identity essentially capture how important work is for the person. However, in organizational behavior literature, it is not uncommon for authors to use work centrality as a surrogate for meaning at work (Dubin 1956, Hirschfield and Field 2000, Michel et

al. 2011). Considering the two measurement scales for meaningfulness of work (Steger et al 2012 and May et al 2004) in Table 2, most of the items mention meaning, worthwhileness, and significance.

The second literature stream considers the meaningfulness of work (meaningfulness versus meaning as discussed above) as it pertains to the individual. Russo et al. (2010) defined the meaningfulness of work as "…amount of significance something holds for an individual… 'Meaningful work' is work experienced as particularly significant and holding more positive meaning for individuals" (p. 96). This contrasts with their definition of the meaning of work: "…output of having made sense of something; …an individual interpreting what her work means, or the role her work plays, in the context of her life" (p. 95)." The former definition of meaningful work fits most closely with Frankl's logotherapy and specifically with his assertion that meaning is a unique experience for each individual. Similarly, Russo et al. (2010) assert that different individuals will ascribe different types and levels of meaningfulness to the same work experience. Meaningfulness is considered to have a positive valence and can be conceptualized as the amount of significance.

In a similar vein, Pratt and Ashforth (2003) define meaningful work as "work and/or its context are perceived by its practitioners to be, at a minimum, purposeful and significant" (p. 309). They note that the meaningfulness of work to an individual is of interest because it is associated with several positive outcomes, such as job satisfaction and organizational attitudes. Importantly, these authors posit that finding meaningfulness at work is a type of sensemaking, where "it is sensemaking in the service of answering a broader existential question about the purpose of one's existence" (p. 309). It is personal but in the social context of work. These authors cite Frankl and assert that individuals are actively looking for meaning in their lives. Indeed, most individuals recognize the role that work can play in terms of providing meaning in one's life. In a recent newspaper article about growing older, entitled "Is there such a thing as

normal aging?" the author quotes a retired physician who said, "the biggest challenge [in retirement] is to make your life as meaningful as it was when you were working." (Horovitz 2018)

Thus, meaningfulness at work is a unique experience for the individual end user that is driven by the individual's quest for meaning in life. The individual may approach meaning at work in the same way as sensemaking. Sensemaking in this sense is "the attribution of significance to some target or stimulus (e.g. work) by placing it into an existing or emerging cognitive framework" (Pratt and Ashforth 2003, p. 311). The gap in this literature is how supplier firm brands can provide that cognitive framework for the end user and how the end users build upon their experience with the brand and the meaningfulness of their work to develop strong connections with the supplier firm brand. An extension of this gap is understanding what type of B2B brand is able to play this role with end users: supplier firm brands that are inexpugnably linked to doing the job and specifically doing the job well, hence the importance of true instrumental value.

It is important to note that logotherapy focuses on the process and the context rather than the outcome of work. As Frankl states, "…meaning is something to be found rather than to be given, discovered rather than invented" (Frankl 2014, p. 43). The supplier firm brand provides the tool that allows the individual end user to find meaning through the processes he or she utilizes at work. As outlined below in the qualitative findings, meaning is found by the individual from what the brand allows the person to construct as an outcome, the difference they make. Thus, the level of meaningfulness that one finds at work would be related to how the end user feels about the supplier firm brand (brand attachment for current research but also other brand connections) because the supplier firm brand is integrally intertwined with finding meaning at work as a helper or a partner in task completion.

Table 1
Literature Review: Meaning of Work and Meaningfulness at Work from Organizational Behavior Literature

Author(s) (# Citations)	Work ID Construct	Definition	Antecedents	Consequences	Method	Contribution
Wrzesniewski and Dutton 2001 (2,210)	Meaning of the work	"…individuals' understandings of the purpose of their work or what they believe is achieved in their work" (p. 180).	Motivation for job crafting	Meaning of Work, Work Identity	Conceptual with examples	Individuals can change the meaning of their work by changing their own understanding of work: job crafting.
Russo, Dekas, Wrzesniewski 2010 (639)	Meaning of work	"…output of having made sense of something; …an individual interpreting what her work means, or the role her work plays, in the context of her life" (p. 95).	NA	NA	Conceptual	Meaning may be positive, negative, or neutral. Meaning is determined by the individual but influenced by the context (social, environmental). Type of meaning (rather than significance).
Russo, Dekas, Wrzesniewski 2010 (639)	Meaningfulness of work	"…amount of significance something holds for an individual… 'Meaningful work" is work experienced as particularly significant and holding more positive meaning for individuals" (p. 96).	NA	NA	Conceptual	Different individuals will ascribe different types and levels of meaningfulness to the same work experience. Meaningfulness is considered to have a positive valence. Amount of significance.
Pratt and Ashforth 2003	Meaningfulness of work	"work and/or its context are perceived by its practitioners to be, at a minimum, purposeful and significant" (p. 309).	NA	NA	Conceptual book chapter	Social identity perspective distinguishing between identifying with the group and the work role.

Table 1
Literature Review: Meaning of Work and Meaningfulness at Work from Organizational Behavior Literature

Author(s) (# Citations)	Work ID Construct	Definition	Antecedents	Consequences	Method	Contribution
Wrzesniewski and Dutton 2001 (2,210)	Work Identity	"…how individuals define themselves at work" (p. 180). A set of actions and cognitions	Motivation for job crafting	Meaning of Work, Work Identity	Conceptual with examples	Social identity at work is created by the assertions of individuals about who they are and why what they do matters. Individuals change their work identity based on (1) what they do and (2) who they interact with.
Dutton, Roberts, Bednar 2010 (483)	Work-related Identities	"the aspects of identity and self-definition that are tied to participation in the activities of work (i.e., a job) or membership in work-related groups, organizations, occupations, or professions. … the way that individuals construe themselves in their work domain."	Types of positive identities	Social Resources	Conceptual with examples	Highlights that individuals use work identities to develop positive personal identities (self-regard) as well as positive social identities (membership in a group). These are related but distinct.

Table 2
Literature Review: Measuring Meaning and Meaningfulness at Work

Author(s) (# Citations)	Work ID Construct	Definition	Measurement	IVs	DVs	Method	Contribution
Steger, Dik, Duffy 2012 (315)	Meaningful Work	"…not as simply whatever work means to people (meaning), but as work that is both significant and positive in valence (meaningfulness). Furthermore, we add that the positive valence of MW has a eudaimonic (growth- and purpose-oriented) rather than hedonic (pleasure-oriented) focus" (p. 2).	Positive Meaning - I have found a meaningful career. - I understand how my work contributes to my life's meaning - I have a good sense of what makes my job meaningful. - I have discovered work that has a satisfying purpose. Meaning making through work - I view my work as contributing to my personal growth - My work helps me better understand myself. - My work helps me make sense of the world around me. Greater good motivations - My work really makes no difference to the world. (R) - I know my work makes a positive difference in the world - The work I do serves a greater purpose.	Calling, work orientation	Well-being variables: job satisfaction, satisfaction, days absent from work	Scale develop-ment	Authors posit that meaningful work has 3 dimensions: psychological meaningfulness, meaning making through work, greater good motivation

Table 2
Literature Review: Measuring Meaning and Meaningfulness at Work

Author(s) (# Citations)	Work ID Construct	Definition	Measurement	IVs	DVs	Method	Contribution
May, Gilson, Harter 2004 (2,285)	Meaningful-ness	"the value of a work goal or purpose, judged in relation to an individual's own ideals or standards" (p. 14)	- The work I do on this job is very important to me. - My job activities are personally meaningful to me. - The work I do on this job is worthwhile. - My job activities are significant to me. - The work I do on this job is meaningful to me. - I feel that the work I do on my job is valuable.	Job enrichment, relationship norms	Job Engagement	Empirical	Job enrichment and work-role fit for the individual were most strongly correlated with meaningfulness. Meaningfulness was strongly related to job engagement

Table 2
Literature Review: Measuring Meaning and Meaningfulness at Work

Author(s) (# Citations)	Work ID Construct	Definition	Measurement	IVs	DVs	Method	Contribution
Paullay, Allinger, Stone-Romero 1994 (624)	Work Centrality	"…the beliefs that individuals have regarding the degree of importance that work plays in their lives. WC is seen as being shaped by the socialization of the individual" (p. 224)	Work should only be a small part of one's life (R) In my view, an individual's personal life goals should be work oriented Life is worth living only when people get absorbed in work The major satisfaction in my life comes from my work The most important things that happen to me involve my work I have other activities more important than my work (R) Work should be considered central to life I would probably keep working even if I didn't need the money To me, my work is only a small part of who I am (R) Most things in life are more important than work (R) If the unemployment benefit was really high, I would still prefer to work Overall, I consider work to be very central to my existence	N/A	N/A	Empirical scale develop-ment on job involve-ment–role; job involve-ment–setting; Protestant work ethic; work centrality	Although work centrality is driven by socialization, the authors also comment that work centrality measures the "measures the personal meaning that the respondent places on work" (p. 225). This reveals some inconsistencies in conceptualization and the items in the scale. Authors also stated, "the WC scale measures how central, or important, work is to the respondent." The scale is used in other studies in both ways.

Table 2
Literature Review: Measuring Meaning and Meaningfulness at Work

Author(s) (# Citations)	Work ID Construct	Definition	Measurement	IVs	DVs	Method	Contribution
Hirschfeld and Field 2000 (289)	Work centrality	"…the extent to which a person identifies with the work" (p.789)	Work should only be a small part of one's life (R) In my view, an individual's personal life goals should be work oriented Life is worth living only when people get absorbed in work The major satisfaction in my life comes from my work The most important things that happen to me involve my work I have other activities more important than my work (R) Work should be considered central to life I would probably keep working even if I didn't need the money To me, my work is only a small part of who I am (R) Most things in life are more important than work (R) If the unemployment benefit was really high, I would still prefer to work Overall, I consider work to be very central to my existence	Protestant work ethic, leisure ethic, work locus of control, work self-discipline, and job involvement	Commit-ment to work	Empirical	Work centrality is conceptualized to be identification with the work role as a proxy for meaning. Authors use the scale from Paulley et al. The authors find overlap with job involvement and work centrality.

Table 2 Literature Review: Measuring Meaning and Meaningfulness at Work							
Author(s) (# Citations)	**Work ID Construct**	**Definition**	**Measurement**	**IVs**	**DVs**	**Method**	**Contribution**
Michel, Kotrba, Mitchelson, Clark, and Baltes, 2011 (623)	Work centrality	Perceived importance of work in one's life; the degree to which the work role is central in life	From Paullay et al.	Work centrality, work involvement, Role stressors, Personality	Family/ Work conflict	Empirical	Identity depends on the importance an individual attaches to the role and its meaning to the individual.

Literature on Meanings from Brands

In their recent book chapter on brand meaning making, Allen, Fournier, and Miller (2008) summarize current knowledge on how consumers use brands to find meanings in their lives and how consumers can be co-creators in that meaning. They assert, "a brand is first and foremost a repository of meaning for consumers to use in living their own lives" (p. 782). They note the role that marketing activities play in providing brand meaning – the received view – and the consumer culture perspective of co-creation of value between individuals and brands and communities and brands. With a few exceptions, this literature considers meaning for the individual in terms of the individual's self-concept, unlike logotherapy which treats meaning in life as an existential drive unique to human beings.

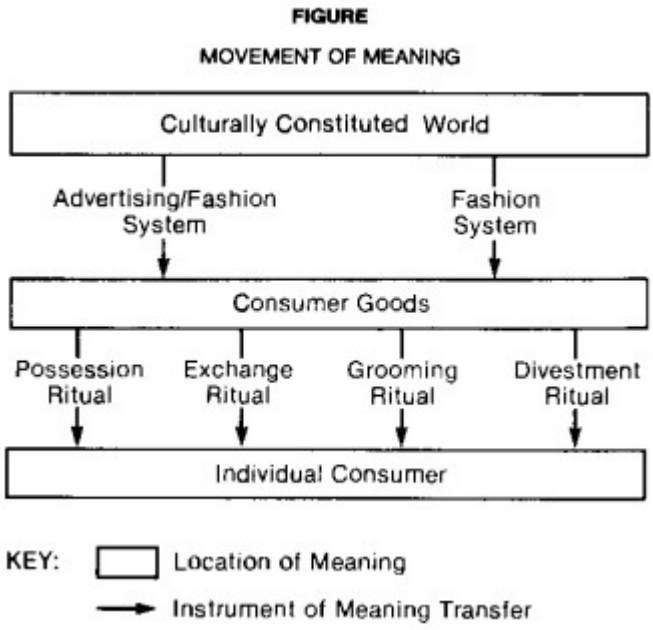
Belk's seminal 1998 piece has been cited close to 9,000 times so it would be no exaggeration to say it is one of the most influential marketing articles in existence. Part of the reason for this is because his article touches on so many subjects. Of note for current research is his assertion that the self as extended by possession can provide meaning to an individual. He specifically calls for more research on "the contribution of the extended self to defining meaning in life" (p. 140) and "the role of consumption in providing meaning in life" (p. 60). However, Belk focuses on one's sense of self and how possessions are important for self-definition, rather than addressing why meaning in life is an underlying goal for individuals.

Fournier's 1998 article is also a seminal piece and widely cited. In this article, Fournier argues that individuals develop relationships with brands for a purpose, that is, "the provision of meanings" (p. 344). Similar to Belk's (1998) focus on self-concept, her focus is on the individual's identity and how brand relationships related to important themes or projects in the individual's life. Although the examples that Fournier uses are strictly consumer brands, she does focus on how the brand helps the individual meet certain life goals. Here we can see the overlap

with supplier firm brands who help the individual end user be productive on the job and complete specific tasks. She also makes the important point that brand relationships are necessarily context-specific, a very relevant point for supplier firm brands. She states, “deep knowledge of the consumer-brand relationship is obtained only through consideration of the larger whole in which that relationship is embedded” (p. 366).

For McCracken (1986), brand meaning can only be understood within the larger cultural context, rather than simply an individual phenomenon or a series of meanings broadcast by the culture. The cultural context exists outside of and prior to any firm activities initially, and then the firm broadcasts its meaning through traditional marketing activities, such as advertisements, product placements, distribution, price, etc. McCracken’s (1986) figure from page 72 is reproduced below. In this case, culture is the source of the meaning that eventually makes its way down to the individual. Although he highlights “the mobile quality of meaning” (p. 71), he does not allow for how individual differences and individual contributions change the meaning. Most importantly, he does not address the existential drive for meaning found in human beings and highlighted by Frankl (1959).

Figure 1: Movement of Meaning from McCracken 1986



Hirschman and Holbrook (1982) address what Frankl highlights as the "human capacity of creating and using symbols" (Frankl 1970, p. 25). Importantly, they focus on the experiential perspective and explain how certain subjective product characteristics can drive symbolic meanings. For them, however, the types of product or services that most merits the consideration of a symbolic meaning are related to the arts or leisure activities. For the purposes of this research, symbols and personal meaning are assumed to also be the concern of work-based brands.

In summary, the gap in this literature is that the unique role of work brands versus consumer brands is not explored in terms of the meaning work can bring to one's life. Literature on brand communities, however, illuminates how other people can provide meaning to an individual's life and how brands can come to symbolize shared values. See Table 3 for a review of relevant articles.

Table 3
Literature Review: Meaning of Brands and Sensemaking

Author(s) (# Citations)	Brand Meaning Construct	Definition	Antecedents	Consequences	Method	Contribution
Belk 1998 (8,978)	Extended self	Summarized as major categories of extended self as body, internal processes, ideas, and experiences, and those persons, places, and things to which one feels attached.	Theft, gift giving, possessions, experience, history	Self-concept, Meaningful life	Conceptual	Consumers assign meanings to their possessions and actively create meanings through their possessions. Indeed, the core purpose of the extended self is provide meaning in life.
Fournier 1998 (7,573)	Brand relationship quality	The strength of the connection formed between the consumer and the brand toward a prediction of relationship stability over time. It has 6 facets: love/passion, self-connection, commitment, interdependence, intimacy, brand partner quality	Brand behaviors, consumer behaviors	Relationship stability/durability	Qualitative	The meanings that consumers ascribe to brands depends on their personality life projects and can be multifaceted and changing over time. Individuals have a brand portfolio that they use to find meaning in their lives.
McCracken 1986 (3,186)	Culturally constituted world	Cultural meaning-making group concerning the major categories through which meaning is ascribed	Objects, instruments of meaning transfer, the firm	Individual meaning	Conceptual	Cultural meaning is from three areas: culturally constituted world, consumer goods, and the individual consumers, with meaning flowing down from the constituted world, to consumer goods and finally down to the consumer.

Table 3 Literature Review: Meaning of Brands and Sensemaking						
Author(s) (# Citations)	**Brand Meaning Construct**	**Definition**	**Antecedents**	**Consequences**	**Method**	**Contribution**
Hirschman and Holbrook 1982 (5,723)	Symbolic consumer experiences	Phenomenological in spirit and regards consumption as a primarily subjective state of consciousness with a variety of symbolic meanings, hedonic responses, and esthetic criteria	Subjective characteristics	Emotions, feelings of pleasure (mental events)	Conceptual	Symbolic consumer experience

End User Supplier Firm Brand Attachment

One of the distinctions between supplier firm brands on the job and consumer brands is that the end user is required to use the supplier firm brand on a daily basis whereas most consumers have some choice about which brand to purchase. End users thus have an interaction with the brand as a matter of course. Thomson et al. (2005) make the interesting observation that "strong attachments develop over time and are often based on interactions between an individual and an attachment object [such as a brand]" (p. 78). Thus, except for the most apathetic of them, end users on average would logically develop some level of attachment to a supplier firm brand simply based on their on-the-job interactions with the brand. Thomson et al (2005) go on to explain, "These [brand] interactions encourage the development of meaning and invoke strong emotions in reference to the attachment object" [emphasis mine] (p. 78). Thus, the conceptual development of brand attachment assumes a sense of meaning the individual ascribes to the brand, as implied by logotherapy (as it impacts the experience of the job).

Brand attachment can be defined as "the bond that connects a consumer with a specific brand and involves feelings toward the brand. These feelings include affection, passion, and connection" (Malar et al. 2011, p. 36). The brand attachment scale developed by Thomson et al. (2005) and widely used has the individual rate a series of "feelings" toward the brand in question: affection, love, connection, passion, delight, captivation. This brand attachment scale has shown discriminant validity as compared to brand involvement (Malar et al 2011), brand attitude strength (Park et al 2010), brand equity (Yoo and Donthu 2001), and brand love (Batra et al 2012). Given the level of (intense) interaction on the job and interactions as the source of brand attachment and specifically meaning, current research proposes that brand attachment results from end user's experiences with supplier firm brands on the job and from the meaningfulness of work for the individual end user.

In fact, as noted by Park et al. (2010), consumer can develop a strong attachment to brands because they are "meaningful in light of goals, personal concerns, or life projects" (p. 2). This echoes terms from logotherapy about an individual's search for meaning and how meaning fulfillment always drives individual motivation (Frankl 2014, p. 20). Although Park et al. (2010) do not expressly address meaning at work and completion of tasks at work, they do explicitly examine how the self-brand connection emanates either from the brand being part of one's self-concept and/or the brand offers "instrumental value" to the individual. These authors break brand attachment into two parts: self-brand connection, and prominence, where prominence is "the extent to which positive feelings and memories about the attachment object are perceived as top of mind" (p.2). Work brands would logically be more prominent for someone for whom work has higher meaningfulness, because meaning work goals would be more important to them. In the authors' words:

> …prominence may serve as an important indicator of attachment when consumers are connected to a brand because of its instrumental value (i.e., a person's iMac is important in fulfilling entertainment- and work-related goals). That is, when a brand has instrumental value, attachment should be stronger when brand-related thoughts and feelings are more versus less prominent. As prominence increases, brand-related thoughts and feelings are part of everyday life tasks, making brand attachment stronger (Park et al. 2010, p. 3)

In short, for Park et al (2010), the instrumental value of the brand is a key driver of attachment. What function the brand serves is one key to attachment. This relates to Frankl's idea of task completion as a path to meaning, where the brand helps complete the work task. Work brands would also be more prominent for end users for whom work is more meaningful, that is a relatively more important source of meaning for their lives.

Given that a key aspect of B2B brand is their instrumental value, it is important to note that the brand attachment construct has also been studied in a consumer environment for a product that is almost entirely utilitarian – car batteries. Belaid and Behi (2011) explore attachment with this utilitarian product and find similar construct relationships as for hedonic products. They also highlight that most brands have a functional component, which is linked to perceptions of brand performance (similar to Fournier 1998 comment on how brands can help consumers reach their "goals"). They note, "Functional associations refer to the utilitarian benefits of brand consumption with regard to intrinsic and extrinsic brand attributes (brand performance)" (p. 38). Importantly, they find that brand performance can lead to emotional bonds: "even for a utilitarian product the consumer can develop an affective bond with a brand" (p. 41).

Zhou et al. (2012) explore the role of brand community in the development of brand attachment and find that brand community members share the same "functional utility" from the brand. For these authors, identification with the brand community leads to shared values regarding the utility of the brand. They assert:

> Brand community identification brings forth such social values because the affiliation is based on the shared brand experiences and utility of community members. Identifying with a brand community means that the community members likely would buy the same brand, share their brand experiences, and draw similar functional utility from consuming the brand. belonging to the same community (p. 891).

In short, for these authors, brand community is an antecedent to brand attachment. One can see parallels in a work community, where participating in the work community – sharing brand

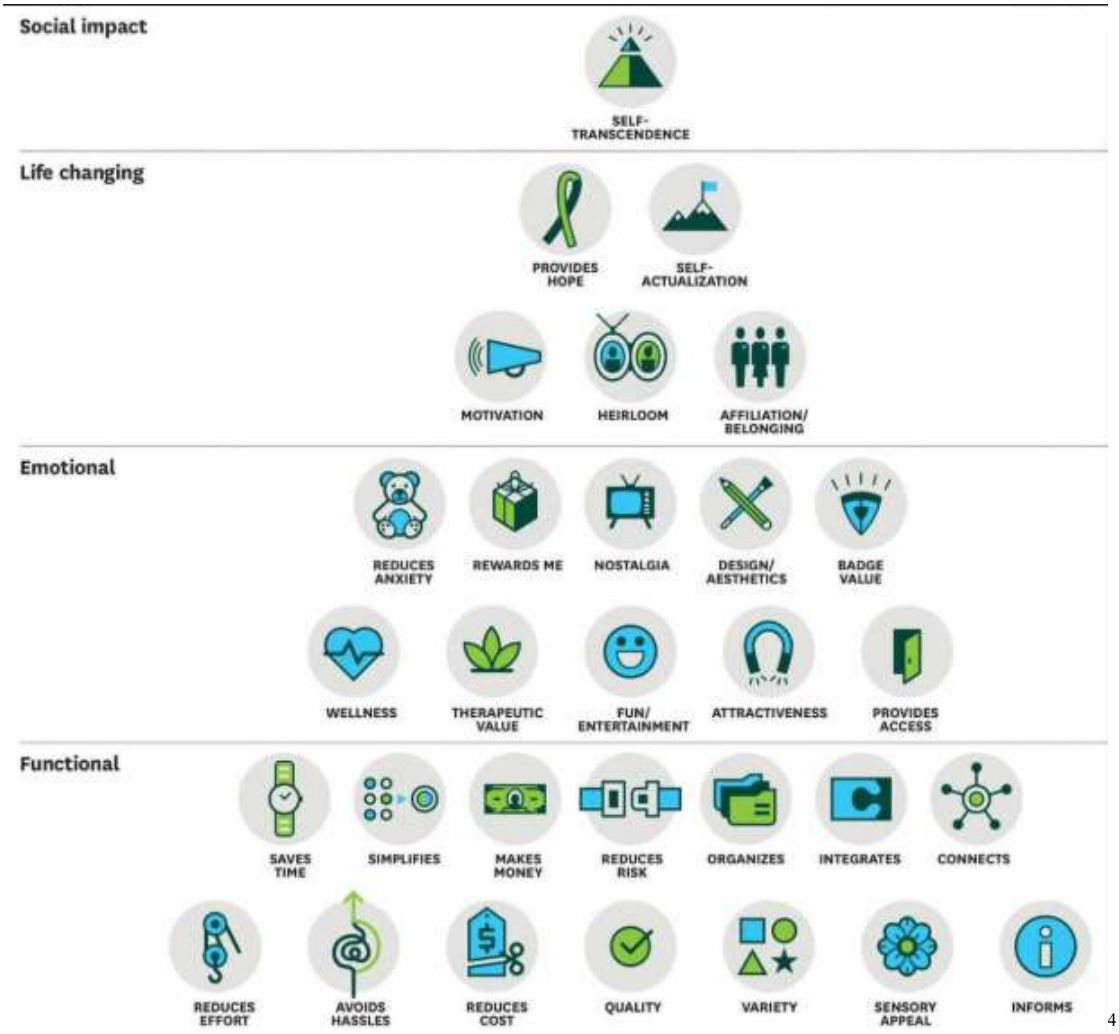
experiences and brand utility – can lead to brand attachment to supplier firm brand. This is similar to Frankl's conception of shared meanings becoming group values.

Lambert-Pandraud and Laurent (2010) also consider the development of attachment over time, by comparing the relative experience a consumer has with a brand with the relative strength of brand attachment. Attachment to a brand is considered over time, based on nostalgia and association with life experiences. Experience over time with a consumer product (repeated interactions) is also reflected in a work environment by continuous exposure at work and/or the first work exposure being a certain B2B brand.

Considering the functional or instrumental value of a brand as a driver of brand attachment also echoes the literature on the types of value. In Sweeney and Soutar 2001, four dimensions of value are proposed: "emotional, social, quality/performance and price/value for money" and the "four value dimensions were found to help significantly in explaining attitudes and behavior" (p. 203). In particular, the quality/performance dimension is defined as the functional value or "the utility derived from the perceived quality and expected performance of the product" (p. 211), similar to the functional value found in attachment literature. Importantly for current research, the quality/performance dimension explains both attitudinal constructs and subsequent behavior, or as proposed in current research, brand attachment followed by engagement behaviors.

The value literature informs the aptness of brand attachment formation on the job because it explains how different types of product features relate to each other. For example, Almquist et al. (2016) divide value into four categories: social impact, life changing, emotional, and functional value for customer brands (please see below graphic).

Figure 2: Categories of Value



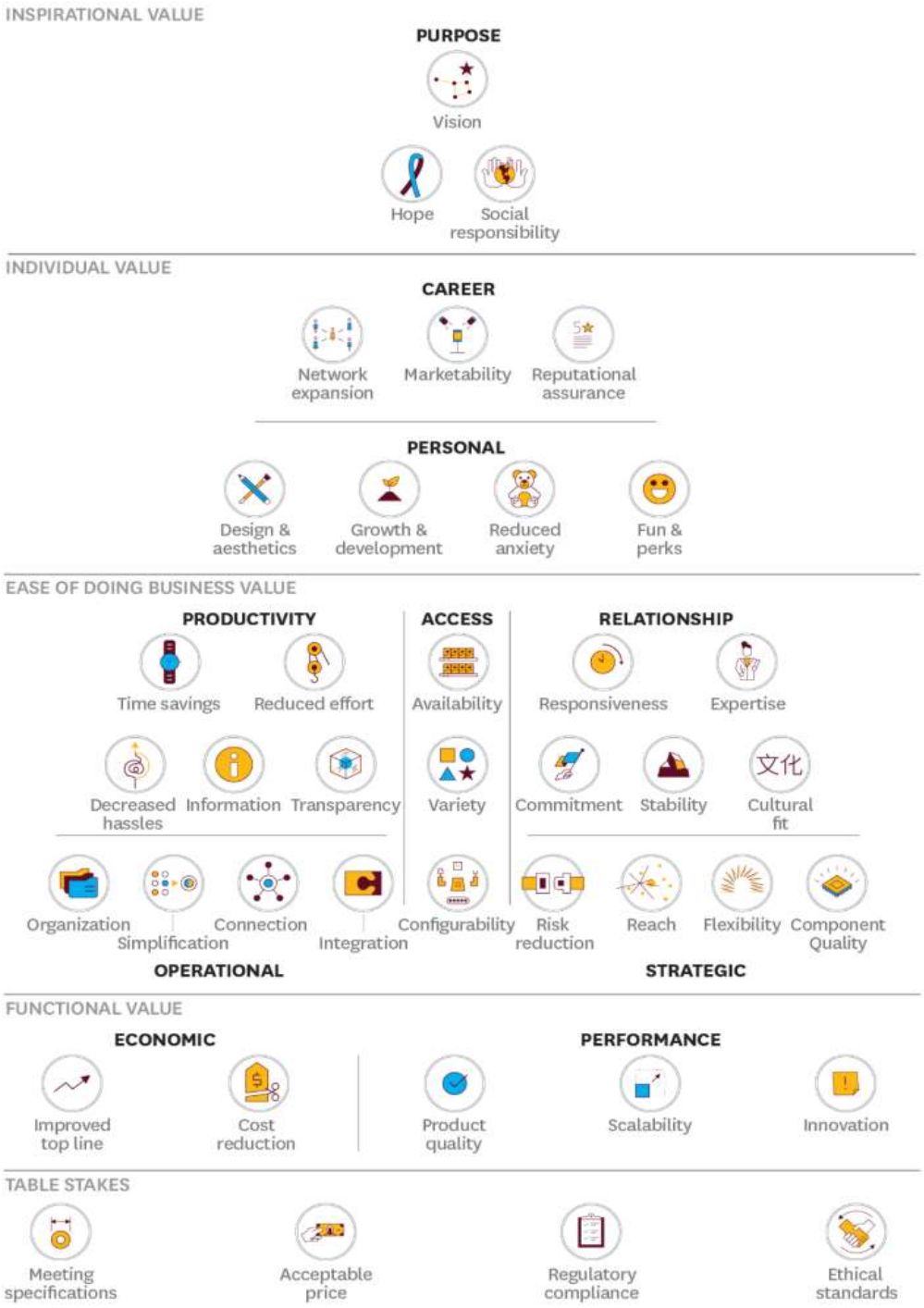
[4]

Almquist et al. 2018 re-imagine the above for B2B environments, and in doing, they kept "functional value" as a category and also added "ease of doing business" as another category. Comparing the two graphics, one can note that many of the "functional value" categories from B2C, such as saves time, simplifies, reduces risk, organizes, avoids hassles, variety, informs etc., show up in the "east of doing business" category in B2B. For Almquist et al 2016 and 2018, customer loyalty is a key outcome of perceived value and the appropriate combination of the right

[4] From Almquist, Eric, John Senior, and Nicolas Bloch (2016), "The Elements of Value," Harvard Business Review, March-April 2018.

type of value for the individual customer. As discussed earlier, since end users do not typically purchase the supplier firm brand products that they use every day, loyalty is not the appropriate variable to consider when modeling the outcomes of instrumental value for end users. Nonetheless, the value pyramids illustrate how different elements of value can lay the foundation for strong brand connections, such as brand attachment.

Figure 3: B2B Categories of Value



[5]

[5] From Almquist, Eric, Jamie Cleghorn, and Lori Sherer (2018), "The B2B Elements of Value," Harvard Business Review, March-April 2018.

Although customer-brand identification has been shown to be a separate construct empirically (Zhou et al 2012, Tuskej et al 2013), the conceptualization of customer-brand identification informs the role of instrumental value in the development of brand connections. Lam et al (2013) define customer-brand identification as a "consumer's psychological state of perceiving, feeling, and valuing his or her belongingness with a brand" (p. 235). They outline three antecedents of customer-brand identification: perceived quality self-brand congruity, and consumer innate innovativeness. Of relevance for current research, they propose that perceived quality, defined as "consumer's judgment about the superiority or excellence of a product (p. 235)," is an instrumental driver of customer-brand identification. Importantly, perceived quality is considered to be generally controlled by the firm, in a B2B context, the supplier firm. Stokburger-Sauer et al. (2012) also note the similarity between customer-brand identification and brand attachment because both stem from the self-brand connection as defined by Park et al 2010, which includes instrumental value as a key component. Likewise, for Wolter and Cronin (2016), the cognitive dimension of customer-company identification, defined as "a cognitive connection between the definition of an organization and the definition a person applies to himself or herself as reflected by self-categorization and conceptual overlap" (p. 400), has a functional value for the customer.

Attachment as an antecedent of loyalty behaviors has also been explored in a qualitative study using elicitation techniques (Grisaffe and Nguyen 2011), and the "open and selective coding (Glaser and Strauss, 1967)" indicated that "user-derived benefits" were antecedents of attachment. The examples of "user-derived benefits" illustrated the functional or instrumental value of the brands under consideration. For example, Tide detergent was prized because of its hypoallergenic properties, and for toothpaste, "Crest was dependable for ultimate dental protection—no cavities" (p. 1056). In summary, user-derived benefits as an antecedent to loyalty behavior relates to instrumental value as described in Park et al 2010. The authors identify three

aspects of user-derived benefits: sensory pleasure, self-oriented goals, social-oriented goals. The focus on goals ties into task completion at work as described by Frankl. Loyalty in summary is a related construct to brand attachment, but even attitudinal loyalty is typically defined in some relation to a commitment to purchase. For example, Olivier (1999) defines loyalty as:

> …a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior (p. 34).

Similarly, Jacoby and Kyner (1973) propose that loyalty is a formative construct with the behavioral response of purchasing a key indicator. Likewise, Dick and Basu highlight the role of purchasing behaving in defining loyalty as: "favorable attitude that is high compared to potential alternatives and repeated patronage are required for loyalty" (p. 100). Given that end users are typically not the decision-makers when it comes to purchasing decisions in the customer firms, consider loyalty to a supplier firm brand would be a mis-match on a conceptual level.

In summary, the literature supports the application of brand attachment in a work environment because functional value and connection with the self-concept are underlying principles of brand attachment. However, a current gap in the literature is an explicit examination of brand attachment in a purely B2B environment, one of the key contributions of current research. Please see Table 3 for a literature review of relevant articles on brand attachment.

Table 4
Literature Review: Brand Attachment

Author(s) (# Citations)	Attachment Construct	Definition	Antecedents	Consequences	Method	Contribution
Park et al. 2010 (1253)	Brand Attachment	"the strength of the bond connecting the brand with the self" (p. 2)	Brand-self connection Prominence	Separation distress Actual purchase Purchase share Need share	Development of brand attachment scale through undergraduate surveys	The authors use attachment theory (Mikulincer and Shaver 2007) to provide theoretical basis. Attachment has sense of self and emotional aspects as drivers.
Park et al. 2010 (1253)	Prominence	"the extent to which positive feelings and memories about the attachment object are perceived as top of mind" (p. 2)	"salience of the cognitive and affective bond that connects the brand to the self" based on "ease" and "frequency"	Brand attachment	Development of brand attachment scale through undergraduate surveys	In a work environment, work-related brands would be expected to be more top of mind versus consumer-only brands.
Park et al. 2010 (1253)	Self-brand connection	"cognitive and emotional connection between the brand and the self" (p. 2).	"(1) the brand is part of a person's self-conception and/or (2) it has instrumental value" (p. 2)	Brand attachment	Development of brand attachment scale through under-graduate surveys	The instrumental value of the brand is one of two key drivers of attachment. What function the brand serves is one key to attachment. This relates to Frankl's idea of task completion as a path to meaning, where the brand helps complete the work task.

Table 4
Literature Review: Brand Attachment

Author(s) (# Citations)	Attachment Construct	Definition	Antecedents	Consequences	Method	Contribution
Park et al. 2010 (1253)	Brand Attitude Strength	"as the positivity or negativity (valence) of an attitude weighted by the confidence or certainty with which it" (p.1).	Judgement of the brand	Separation distress Actual purchase Purchase share Need share	Development of brand attachment scale through undergraduat e surveys	Brand attitude strength reflects the confidence in one's judgement of brand.
Thomson et al. 2005 (2017)	Emotional Attachment	"…emotion-laden target-specific bond between a person and a specific object [brand" (p. 78)	Affection Connection Passion	Commitment Loyalty	Scale development using student surveys	Distinguishes emotional attachment from brand attitudes, satisfaction, and involvement. Scale later used as basis for brand attachment scale.
Malar et al. 2011 (763)	Emotional Brand Attachment	"reflects the bond that connects a consumer with a specific brand and involves feelings toward the brand" (p. 36)	Perceived actual self-congruence Perceived ideal self-congruence	Brand loyalty and brand performance (conceptualized but not tested)	Email surveys to develop brand attachment survey	Brand attachment is delineated from brand involvement. The moderating effects of the self – self-esteem and self-consciousness – as well as self-congruence as antecedent. This role of the self for brand attachment is key and fits well with Park et al. 2010's article.
Belaid and Behi 2011 (154)	Brand Attachment	"a psychological variable that refers to a long lasting and inalterable (the separation is painful) affective reaction towards the brand, expressing psychological proximity with this one" (p. 38).	Psychologi-cal similarity	Brand commitment Brand satisfaction Brand trust Loyalty	Face-to-face survey on car batteries	Study explores attachment with a utilitarian product – car batteries – and finds similar construct relationships as for hedonic products.

Table 4
Literature Review: Brand Attachment

Author(s) (# Citations)	Attachment Construct	Definition	Antecedents	Consequences	Method	Contribution
Lambert-Pandraud and Laurent 2010 (242)	Attachment (to a brand)	"…attachments form with a specific material object, involve psychologically appropriated possessions, are self-extensions, require a personal history between the consumer and the possession, tend to be emotionally complex, and evolve over time with the changing meaning of the self" (p. 106).	Age of consumer (inferred nostalgia and memories)	Brand loyalty	Preliminary qualitative interviews, then consumer survey and interviews about perfume	Attachment to a brand is considered over time, based on nostalgia and association with life experiences. Experience over time with a consumer product (repeated interactions) is also reflected in a work environment by continually exposure at work and/or the first work exposure being a certain B2B brand.
Kleine and Baker 2004 (478)	Material possession attachment	"…multi-faceted property of the relationship between a specific individual or group of individuals and a specific, material object that an individual has psychologically appropriated, decommodified, and singularized through person-object interaction."	Person-object interaction	Self-image (self-definitional purposes)	Conceptual paper	Authors argue that attachment forms with specific objects, not product categories or brands, and that it is multifaceted. The person-object interaction is the basis for attachment – similar to experience on the job with a tool.
Zhou et al. 2012 (249)	Brand attachment	"…the strength of the bond connecting the brand with the self" (from Park et al 2010).	Brand community Brand identification	Brand commitment	Survey data from Chinese car club	Brand community members share same "functional utility" from the brand. Since brand community is an antecedent of attachment, logically shared functional utility is related to attachment.

Table 4
Literature Review: Brand Attachment

Author(s) (# Citations)	Attachment Construct	Definition	Antecedents	Consequences	Method	Contribution
Grisaffe and Nguyen 2011 (237)	Emotional attachment (to a brand)	"emotion-laden bond between a person and a brand characterized by deep feelings of connection, affection, and passion" (p. 1053) from Thomson et al 2005	Emotional memory, socialization, superior marketing characteristics, traditional customer outcomes, user derived benefits	Loyalty behavior	Qualitative study using elicitation techniques.	Considers how emotional attachment – a psychological bond – to a brand underlies a certain type of loyalty, "a fervent commitment to repurchase" (p. 1052). User-derived benefits as an antecedent relates to instrumental value as described in Park et al 2010. The authors identify three aspects of user-derived benefits: sensory pleasure, self-oriented goals, social-oriented goals. The focus on goals ties into task completion at work.
Lam et al 2013 (132)	Customer-brand identification	"consumer's psychological state of perceiving, feeling, and valuing his or her belongingness with a brand" (p. 235).	Perceived quality (instrumental driver), self-brand congruity, and consumer innate innovativeness	Customer in-role and extra-role behaviors	Online survey using panel data.	The authors propose that perceived quality, defined as "consumer's judgment about the superiority or excellence of a product (p. 235)," is an instrumental driver of customer-brand identification. Importantly, perceived quality is considered to be generally controlled by the firm, in a B2B context, the supplier firm.

Table 4
Literature Review: Brand Attachment

Author(s) (# Citations)	Attachment Construct	Definition	Antecedents	Consequences	Method	Contribution
Stokburger-Sauer et al. 2012 (316)	Customer-brand identification	"a consumer's perceived state of oneness with a brand" (p. 407).	Brand-self similarity, brand distinctiveness, brand prestige	Brand loyalty, brand advocacy	Online survey of a German household panel	Authors suggest that customer-brand identification is narrower than but potentially overlapping with brand attachment, because of its similarity to self-brand connection outlined by Park et al 2010.
Wolter and Cronin 2016 (24)	Customer-company identification	"representing a connection between a customer's sense of self and an organization" (p. 397). It has cognitive and affective dimensions.	Self-uncertainty and self-enhancement	Group promoting and group sustaining behaviors by customers	Cross-sectional Amazon Mechanical Turk survey	The cognitive dimension of customer-company identification, defined as "a cognitive connection between the definition of an organization and the definition a person applies to himself or herself as reflected by self-categorization and conceptual overlap" (p. 400), has a functional value for the customer.

Qualitative Interviews and Hypothesis Development

To summarize, logotherapy proposes that humankind's search for meaning is an innate drive that can be satisfied via three possible avenues, one of them being task completion or making a difference in a work environment. Work is one place where one can find the meaning that one is searching for. It is important to distinguish between the meaning that work has for others – the organizational behavior construct "meaning" versus the unique meaning that an individual may find at work – the organizational behavior construct of "meaningfulness." This research concerns the meaningfulness an individual ascribes to work. In related marketing literature, brands may also be a source of meaning for consumers, based specifically on the personal experience a consumer has with a brand. Current research aims to extend existing research on consumer meaning-making with brands to the work context, using logotherapy's assertion about the unique role work can play for individuals searching for meaning in their lives. Additionally, the instrumental value a brand offers can be the foundation for the development of brand attachment (Park et al (2010). This relates to Frankl's idea of task completion as a path to meaning, where the brand helps complete the work task. Work brands would also be more prominent for end users for whom work is more meaningful, that is a relatively more important source of meaning for their lives. These constructs and themes were found in the literature and also reflected in the findings from the qualitative phase of current research. The following section outlines the methodology used for that phase and develops hypotheses grounded in findings from the interviews and the literature review.

Findings from Interviews

Grounded theory is considered to be the preferred approach when existing research on a topic is relatively limited (Creswell 2011), such as the case of understanding connections between end users and supplier firm brands. As such, grounded theory includes both deductive and inductive processes in an iterative manner. Charmaz (2014) clarifies "grounded theory methods consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories from the data themselves" (p. 1). Charmaz (1990) asserts that grounded theory methods "begin with general research questions rather than tightly framed pre-conceived hypotheses" (p. 1162), such as the questions outlined in the introduction. Grounded theory also has the advantage of incorporating and extending existing theory once data saturation and themes begin to emerge.

Grounded theory has been used extensively in B2B literature (Griffin and Hauser 1992, Kohli and Jaworski 1990), and there exists a B2B positivist tradition for using a grounded theory approach. Nonetheless, it is worth remarking that some individuals expect for grounded theory to be exclusively applied in a constructionist or interpretive perspective. However, Charmaz (1996) argues that "Grounded theory methods can be used by researchers who subscribe to realist, objectivist assumptions as well as by those who subscribe to interpretative, constructionist perspectives" (p. 31). Given that grounded theory typically uses actual words and phrases spoken by informants, its relationship to "reality" may be more apparent than findings from surveys (Van Maanen 1988). Agreeing with his rationale, Charmaz (1996) summarizes Van Maanen 1998 as follows:

> Van Maanen casts grounded theory studies as realist works, whether they begin with interpretative or positivistic assumptions. He does so because grounded theorists typically provide dispassionate, objectivist accounts of their data and

> assume that by being objective observers they will discover processes in an external world of their research participants that remains separate from themselves. Grounded theory works are empirical studies, whether their data sources are autobiographies, published accounts, public records, novels, intensive interviews, case-studies, participant observer field notes or personal journals. As a result, the empiricism inherent in grounded theory methods makes them less congenial to those postmodernists who advocate abandoning empirical research with thinking, feeling, acting human beings (p. 31).

Present research thus follows the above approach to grounded theory, that is, building theory based on the informants' words while working in an iterative fashion with existing academic literature.

In fact, for the current investigation of end users, grounded theory is particularly apt because it can be used to identify and qualify psychological themes and their roles in an overarching process. In grounded theory methods, "Their emergent categories explain and conceptualize (1) the data, (2) common sense understandings of these data, and, likely, (3) other theoretical interpretations" (Charmaz 1990, p. 1162). Such was the case with the current research, where interview transcripts were coded and then recoded based on emerging themes. I also used memos as suggested by Glaser (1998), who describes theoretical memoing as "the theorizing write-up of ideas about substantive codes and their theoretically coded relationships as they emerge during coding, collecting and analyzing data" (p. 177).

Following a B2B positivist tradition and moving iteratively between the interviews and existing theory, additional insights emerged around the meaning of work for the individual end user and the meaning provided by the supplier firm brand for both the individual end user and a shared meaning for end users as a group.

For this research topic, it was necessary for the individuals (end users) to be aware of brands used at work and for the brands to be only present in the work space. For example, a graphic artist may love his or her Apple computer, but it would difficult for research to separate the emotional connection from work experiences from the emotional connection from consumer experiences, such as the Apple TV, etc. Accordingly, two contexts were identified as promising: construction workers and hospital-based nurses. After vetting the appropriateness of these industries, contacts were identified to begin a snowball sampling procedure. Snowball sampling is recommended when the target group is difficult to reach or specialized (Patton 2002), both true in this case. In-depth interviews were conducted using open ended questions, see Table 1 below (interview guide in Appendix A). 18 end users were interviewed; 6 nurses and 12 heavy equipment operators.

In addition to end users, 8 marketing practitioners from B2B supplier firms were interviewed: two marketing directors, three vice presidents of marketing, two directors of sales, and one small business owner who was also in charge of marketing. Snowball sampling was again used with sensitivity to the type of industry where supplier firm brands might be prominent (see Table 6). Four marketing practitioners were drawn from the heavy equipment industry to complement insights gained from construction workers. For each interview, participants received $40.

I conducted all interviews personally, using the grounded theory approach (Charmaz 2014) described earlier. The interviews with the end users took place either on the job site or in a public place. Interviews with end users began with questions about previous work experience and what led them to the profession. The introductory questions allowed me to established rapport and understand what motivates them professionally. We also discussed how much they thought about work outside of work. These questions provided insight into how meaningful their job was to them (Pratt and Ashforth 2003, Russo et al 2010, Gini 1998). This also allowed them to think

about family connections to the profession (Carlson and Kacmar 2000). For example, many of the heavy equipment operators were first introduced to farm equipment as children on the family farm and would like to involve their children in the profession. We then talked about their experiences with brands on the job and if applicable outside of work. These questions were intended to highlight the importance of experiences as antecedents to the end user's psychological state that ultimately lead to behaviors, focusing on the processes. They also elucidated the importance of authentic or "organic" firsthand experiences (de Matos and Rossi 2008) and how end users derived meaning from their experiences on and off the job with supplier firm brands, similar to sensemaking for consumer brands (Allen et al. 2008, Rindfleisch et al. 2008).

In an iterative process, transcripts from the interviews were coded, and codes were compared with existing constructs in relevant literature streams, thus combining emic coding with codes from the literature (such as meaningfulness, meaning, identity, engagement behaviors, marketing initiatives, etc.) as part of the procedure to develop a model of how end user experiences with supplier firm brands determine psychological states that then determine subsequent behaviors on the job and outside of work. Interviews with nurses and interviews with heavy equipment operators indicated saturation (Mason 2010, Crouch and McKenzie 2006, Strauss and Corbin 1998), with repeating themes across multiple interviews. Coding of end user interviews also supports data saturation and a recycling of themes and codes (Fusch and Ness 2015).

Interviews with marketing managers were conducted in person in a public place or over the phone. The interviews began with questions about the marketing managers current role and industry background. The focus of the interview was on current marketing initiatives and the perceived role of end users in the customer organization. There was significant variance in the perceived importance of end users, even from managers in the same industry, indicating the importance of supplier firm culture (Weitz and Jap 1995). Following the same process as for end

user interviews, transcripts were coded and codes were compared and complemented by relevant literature streams.

In addition to the interviews, secondary sources were identified to support the findings, including newspaper articles and images from the Internet.

Table 5: Qualitative Interviews

		Date
	End Users	
1	Nurse	10/2/2017
2	Nurse	10/6/2017
3	Nurse	10/8/2017
4	Nurse	10/10/2017
5	Nurse	10/10/2017
6	Nurse	10/13/2017
1	Heavy equipment operator, owner, excavation	10/13/2017
2	Heavy equipment operator, excavation	10/13/2017
3	Heavy equipment operator, foreman excavation	10/23/2017
4	Heavy equipment operator, foreman pipe laying	10/25/2017
5	Heavy equipment operator, foreman excavation	10/26/2017
6	Heavy equipment operator, foreman clearing	11/1/2017
7	Heavy equipment operator, foreman excavation	11/2/2017
8	Heavy equipment operator, foreman pipe laying	11/8/2017
9	Heavy equipment operator, foreman pipe laying	11/8/2017
10	Heavy equipment operator, foreman finishing	11/13/2017
11	Heavy equipment operator, finishing	11/13/2017
12	Heavy equipment operator, supervisor grading	11/15/2017

Table 5: Qualitative Interviews (Continued from Previous)

		Date
	Marketing Managers	
1	VP of Marketing, Rigging manufacturer Approx. $500 million annual revenue	9/5/2017
2	VP of Marketing, Heavy equipment supplier Approx. $1.4 billion annual revenue	10/30/2017
3	VP of Marketing, Heavy equipment manufacturer Approx. $5 billion annual revenue	11/13/2017
4	Director of Marketing, Hand tools Approx. $4.5 billion annual revenue	11/14/2017
5	Director of Marketing, Midsized equipment manufacturer Approx. $500 million annual revenue	11/30/2017
6	Director of Sales, Internet Services Company, Approx. $2 billion in revenue	1/29/2018
7	Owner, Boutique IT Consulting Firm Approx. revenue unknown	4/4/2018
8	Director of Sales, Human Resources Outsourcing Firm, Approx. $750 million in annual revenue	4/5/2018

Following traditional grounded theory methods, relevant literature was reviewed later in the research process once initial coding was complete and conceptual categories began to emerge (Glaser 1998). As explained by Charmaz (1990):

> reading and integrating the literature later in the research process is a strategy to prompt exploring various ways of analyzing the data. But it means only delaying the literature review, not overlooking it, or failing to use it. Delaying the literature review decreases the likelihood that the researcher will already be

> locked into preconceived conceptual blinders upon entering the field and in interpreting the data. Once the researcher has developed a fresh set of categories, he or she can compare them with concepts in the literature and can begin to place his or her study appropriately within it (p. 1163).

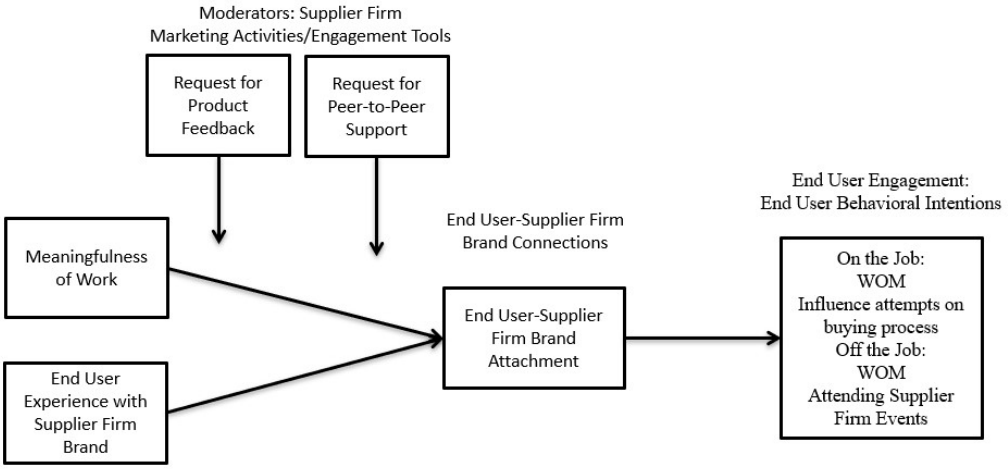
The next section uses insights from the qualitative interviews as well as relevant literature, to develop hypotheses to be empirically tested.

Hypotheses

In this section, I begin by developing hypotheses on the association between end user experience with supplier firm brands and brand attachment. Next, I present the hypotheses on the relationship between meaningfulness of work and brand attachment. I then explore the moderating effect of supplier firm marketing activities and finally the behavioral outcomes associated with supplier firm brand attachment.

See Figure 4 below for the full model.

Meaningfulness of Work and Brand Experience as Drivers of Supplier Firm Brand Attachment and End User Engagement



End User Experience with Supplier Firm Brand and Brand Connections

As with any brand, end users develop a sense of connection with the brand over time based on experiences with the brand (Thomson et al 2005). Naturally for end users, key brand experiences occur on the job with actual brand (product) use.

Listening to heavy equipment operators talk about their brand experiences on the job, they naturally focus on how the equipment performs and helps them with their job. Ted[6], with 20 years' experience, currently working as a finishing foreman, which is often the last step in the earth moving process, explained his supplier brand partiality:

> Small dozers [preference] are John Deere. Yeah, they're just a better dozer. They're balanced a little better. The other ones will get ... Caterpillars, especially the K model, they're real choppy. Yeah, and then when you're trying to get stuff tight you need something that runs a little smoother.

Ted is focusing on what the John Deere dozer does that specifically makes his job easier. James, another machine operator dedicated to finishing grading also described the performance of the equipment on the job in terms of what helps him get the job done:

> Well, I'm actually operating, the dozer out here today is a [Caterpillar] D3K model, which the K model is a little lighter in the front end. They tend to bounce, the front blade just tends to bounce on them, because it's too light, and the John Deeres don't do that. You've got to find your, I don't know, the correct speed to get that out. Either you go too slow, and then you get, say, from your foreman like, "Hey man, it's taking too long to do this," you know what I'm saying? First

[6] All names are pseudonyms to preserve confidentiality.

> [preference] is the John Deere, you know I've never had that problem out of a John Deere. It just all comes natural, you know the feel of the machine.

Not surprisingly, the focus on performance-based experiences are also common in other contexts. Kelly, the pediatric ICU nurse, described the hospital's electronic medical record made by EPIC as so complicated to use that it interferes with some of her job functions:

> … I find that in some ways it [EPIC] has so much functionality that it's hard to understand all of the things that it could do. And it links differently. In the PICU, the residents, we have a lot of residents who do very little but observe and learn, but they do a lot more on the regular pediatric floors. But we have a lot of different order sets than they do. A lot of our kids have arterial lines and they need a special kind of fluid to run through them, and they never know how to order them. But I can't help them because I don't order drugs or put in any kind of orders. So it's hard because they'll put things in wrong. You're constantly going back and having them- You have to track them down and try to get them to correct it, which is a pain because they're doing other things. But it's also hard because you can't get the right product from the pharmacy sometimes if they've written it wrong. Even though we all know what the product is, if they write it wrong it's just difficult. And then they see things, because their role is different, they see things differently than we see things. There's just so many options sometimes that it's overwhelming.

This is the same nurse who exclaimed at the beginning of the interview, "I hate EPIC! I love EPIC!" Given that she has no choice but to use EPIC, but that it also hampers her daily activities, her experience with EPIC on the job logically leads to ambivalent emotions.

Interviews with equipment operators show that end users' experience with supplier firm brands are based on other tangible matters beside job performance, such as comfort. Ed, a clearing foreman, explained, "The excavator is a Komatsu. I like a Komatsu excavator better. To me they're more comfortable. … the joy sticks are better and it's more comfortable." The operators did not all have the same opinion about which brand was more comfortable. Jon, a finishing equipment operator, preferred Caterpillar, "It's just when you sit in it [the Caterpillar], it's comfortable, and everything's where you can reach it like it needs to be. You just feel comfortable sitting in it." Or as Ted, the finishing foreman, stated succinctly, "But comfort, got to be the Caterpillar."

Like the nurse declaring her feelings about the electronic medical record, "I hate EPIC! I love EPIC!", discussion with heavy equipment operators reveal how experience on the job becomes a basis for strong feelings for brands. Mike, a finishing foreman with almost 30 years of experience, explained:

> Oh yeah, every tractor has its own little perk, like for a finish tractor I prefer a John Deere 450. To me, it's a lot smoother operation. The joystick is real smooth, all the motions are real smooth, very comfortable. I love it. Caterpillar, they're bulky, they're jerky. I mean, it's just not my style.

This quote demonstrates how closely the feeling of love follows on the job performance, and, also in this case, hints at how brand performance is linked to his unique self or his "style."

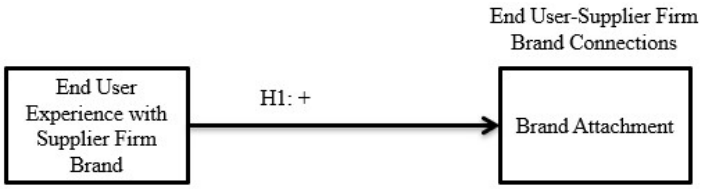
The qualitative findings illustrate the logic Frankl uses in logotherapy. That is, for logotherapy, the search for meaning is context-specific and experience-based. Thus, in the work context, an individual finds fulfilment and meaning by completing tasks, and supplier firm brands assist the individual in task completion. When the end user has more positive experiences with the supplier firm brand on the job, that also implies that the supplier firm brand has provided

more assistance to the individual to complete job requirements and thus find meaning. More formally,

> H1: The more positive the end user's job experience with the supplier firm's brand, the stronger the end user's brand attachment with the supplier firm's brand.

See Figure 5 below:

Experience with Supplier Firm Brand as Driver of Work-Brand Attachment



Meaningfulness of Work and Supplier Firm Brand Connections

Emergent coding of the transcripts reveals that the end users who expressed a stronger sense of connection to supplier firm brands tended to discuss how significant work is in their lives. To try to get a sense of how significant work was, one line of questioning included asking how often the individual thought about work outside of work. When asked about thinking about work outside of work, Mike, finishing, replied:

> I never stop. I work in my sleep… Yes, I operate equipment in my sleep, I talk in my sleep, I work, I do everything in my sleep. I love what I do. I always think about it. How can I do it better? What can I do to be more efficient? I have to stay ahead of the game. If I fall behind, I go into panic mode.

Coding of the transcripts from interviews with equipment operators also reveals that many of them truly enjoy running the equipment and seeing what kind of difference they made in the world. Mike, finishing, explained, “When I'm available to get on, I jump on. That's where I get my peace and quiet.” He continued:

> Anytime you can finish something and the landscaper comes behind you and grasses it, and it looks absolutely beautiful. All the lines are straight, your track marks are nice and straight and clean. I love it. I might take a little snap and put it out there, say another job well done or finished this one, something to that effect…
>
> There's nothing in the world, nothing in the world like seeing the change you made. It's like my wife being a teacher. She sees kids that she taught 20 years ago and they're doing really well, she's like, "Hey, I had an impact on them."
>
> That's phenomenal. I love that. That's like when I leave a job. I did that. I changed the earth. I made that happen, me and my team. I don't ever want to say just me…. To me, there's nothing in the world better than seeing what you've done.

For Mike, his deep love for his job is also associated with strong connections with the supplier firm brand, Caterpillar. He said, “Caterpillar is a great product. They have certain tractors that are phenomenal. I would support them always and I like the logo.” James, finishing, has a similar perspective when asked about thinking work outside of work:

> I think about it all the time… Yeah, I love what I'm doing. [Why?] I don't know, just being outside, and I don't know, just it came natural to me when I first started. I just enjoy it, I have fun doing it.

As does Henry, who when asked about the job, explained:

> I still love it… What I really love the most is somebody come in and make a mess out of the project and then come in behind them and fix it. Transforming something from a complete mess to something that looks good, it's draining around ... Basically, almost come out there and throw grass seed on it, and it'd be finished. I don't know. Just the ability of it… I don't know, doing a good job, I guess, you know?

Henry also had a strong preference for Caterpillar. He clarified, "You have the trust there that they're going to be there every day. What's the word I'm looking for? Dependable, not breaking down a whole lot. Caterpillar has been the name forever as far as I'm concerned." Many operators discussed how making a difference and seeing a concrete change in the world gave them a sense of accomplishment. This fits well with Frankl's assertion that completing a task provides a sense of meaning and fulfilment, that is, "creating a work or doing a deed" (Frankl 1959, p. 111).

Perhaps less surprisingly, most of the nurses I spoke with described a sense of calling for their profession. For example, Clara, a floor nurse at a pediatric hospital, explicated, "It fulfills me to just be able to help someone, so I always knew I wanted to do something like that (nursing)… I cannot imagine doing anything else." She also did not differentiate her work life from her personal life:

> A girl at work was like, 'Work is not my life.' I think she was talking about calling out or something. She was like, 'I have to take a personal day,' and I was like, 'Really, because I feel like work is my life.' …I have friends that work there, too [at the same hospital], so if they're working I'm texting them, 'How's work,' and I think a lot about my patients that I had that night, that prior night.

> When I'm off, I'll think about them, and sometimes call up and be, like, ‘Are they doing okay?’

When I asked Clara her opinion of the electronic medical record software, she immediately responded, “The system’s great… Short and sweet. It makes it easy to chart.” Here she directly ties her feelings about the electronic medical record to how it helps her complete a very important task: charting. Kelly, a pediatric ICU nurse, loves being a nurse and helping children. At the start of our interview she declared, “I hate EPIC [the electronic medical record]. I love EPIC… As bad as it is, we hate down time even more.” Again, how well EPIC helps her get her job done appears to impact her feelings about it.

Like some nurses, many equipment operators, got into their professions because of family members. And for certain equipment operators, they find so much meaning in work that they would like to pass their passion onto their children. In expressing his love for his work, Ron, pipe laying, stated:

> I do. I do. I love what I do. I tell my kids that I'm a ... I'm just a big kid that plays in a big sand box is what I tell them. I get to drive, run tractors. I get to be outside. I just enjoy doing this, being outside. I couldn't see being in an office anywhere. I do, I really love it. My kids, I'm showing them what I do and trying to get them kind of involved. That way they're not all up in video games.
>
> Well, I take them outside and I've got them little small tractors they play with. We act like we're moving dirt on a job sight. I'll bring videos home and I'll bring pictures home and say, "Hey guys. Check out what daddy did today." If a job site is close enough, I'll let them come out here and sit on the tractors and just kind of incorporate them. That's what I do with my kids because I don't think they need

> to be cooped up with a computer in front of them all day. I think they need to be outside and be kids because that's what I'm doing, being a big kid.

Ron, pipe laying, was one of the operators that continually petitioned management for the right equipment, suggesting a link between a meaningful job and on the job influence behaviors. He also acknowledged that individuals had strong emotional connections to certain brands. He said, "Some people are just diehard, they won't run nothing but Caterpillar. I know some people that's just diehard John Deere."

Some equipment operators were on the other end of the spectrum. Andy, pipe layer, expresses how he has become burnt out but does not have many other employment opportunities:

> I don't know [what I like], probably running the equipment. That's all I've ever done, so it's ... You know. It's at the point where I don't really like it no more, but it's all I know how to do, and to make the kind of money I need to make, I'm going to have to keep doing it, so I'll probably be doing this till I retire… I just come and do my job and I go home and don't think nothing else about it if I can help it till the next day.

Andy did not express strong feelings for supplier firm brands. When asked about attending a supplier firm event outside of work, he replied, "Running equipment's what I do for a living. It's not something I do for fun. I'm not that into it."

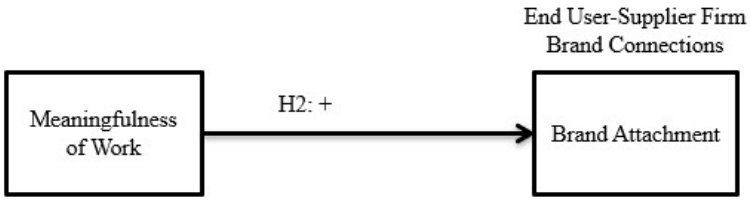
These qualitative findings serve to highlight the role that meaningfulness of work plays for the individual end user. Logotherapy states that all individuals have a need to find meaning in their lives but importantly there are three different avenue to find meaning, work being only one of them. Thus, the variability in the meaningfulness of work to individual end users is predicted by logotherapy. Logotherapy also stresses the importance of task completion – "creating a work or doing a deed" (Frank 1959, p. 111) – as a path to find meaning. As Frankl explains, humans

actively search for meaning and some people are actively searching at work. These end users who find meaning at work are more likely to develop strong connections with the supplier firm brand, because the supplier firm brand is helping them complete the task – thus helping them find meaning. In summary, the meaningfulness of work to the individual end users is positively related to their attachment to the supplier firm brand. More formally:

> H2: The more meaningfulness an end user ascribes to her/his job, the stronger the end user's brand attachment with the supplier firm's brand.

See Figure 6 below.

Meaning Provided by Work as Driver of Work-Brand Attachment



Role of Marketing Activities

Marketing literature also provides a foundation for how marketing activities can be the basis for the development of work brand connection for end users. This is also revealed in coding of the interview transcripts, which shows how a supplier firm's marketing activities, such as training, equipment demos, and email outreach, can also form an experiential basis for work brand connections. Indeed, in the B2C environment, Fournier (1998) specifically links marketing

activities with the development of a relationship between the consumer and the firm. She suggests that one can consider:

> …all marketing activities as a set of behavioral incidents from which trait inferences about the brand are made and through which brand personality is actualized. This important conceptual point – that the everyday execution of marketing mix decisions constitutes a set of behaviors enacted on behalf of the brand – forms a cornerstone of the relationship argument. (p. 345)

Strategy literature implies that brand marketing activities in a B2B setting will on average have a positive impact on business relationships between the customer firm and the supplier firm (Brown, et al. 2011, Michaelidou and Christodoulides 2011, Glynn 2012). Interviews with marketing managers supported the (intuitive) notion that brand marketing activities are important in a B2B environment. They also highlighted the challenges faced by marketers in terms of balancing the competing requirements of different stakeholders in the customer firm as well as potentially conflicting loyalties.

Indeed, when end users exhibit on the job influencing behaviors – requesting certain supplier firm brands or highlighting the benefits of one brand over another – the supplier firm's marketing department can play a key role in translating these behaviors into languages that the decision makers understand. As explicated by the Director of Marketing from a hand tool company, their marketing teams and frontline salespeople use feedback from end users about the high quality of their tools to justify the price premium. In her words, "So, we try to dollarize the shop foreman's feedback to explain the difference." Her choice of the word "explain" rather than justify highlights the unique role that marketing can play as a moderator between stakeholders in a customer firm. This role is not always straightforward, as illuminated by the same marketing practitioner:

> It was a delicate thing, because the purchasing agent, he's like the big wheel. So, he wants to have the final say. To not bruise egos and things like that, it was a very delicate situation to manage both sides.

The interactive experiences with the supplier firm, in this case through various marketing and sales encounters, is what drives the basis for stronger relationships.

End user focused marketing initiatives are often part of a long-term strategy. Most practitioners interviewed for current research saw end users as key to their long-term success as a firm. The VP of Marketing of a heavy equipment supplier pronounced the importance of end users:

> …for the manufacturer they absolutely matter. They are the voice. The manufacturer should be obsessed with driving ease of use and safety and productivity to that user of their asset. I absolutely, if I were a product manager? …I would be obsessed with the requirements of the user of my asset.

Indeed, the VP of Marketing at the heavy equipment manufacturer explained that for new customer firms, company representatives initially approach the operators to win the operators over before they approach decision-makers.

End users can be especially important for premium brands. As explained by the VP of Marketing from a rigging equipment manufacturer, “The brand itself is a premium brand in the marketplace. What's interesting, generally, about it is the end users are the ones who tend to push their organizations to pay the premium.” Significantly, he also discussed how effective engagement marketing must also be authentic from the point of view of the supplier firm. The Director of Marketing from a midsize equipment manufacturer explains that the source of the strong emotions or “stimulate heightened psychological and emotional connections” (Harmeling et al 2017 p. 322) comes from the culture of the supplier firm that permeates marketing outreach:

> We look out for each other, we're very family oriented, and that permeates out to all those customers that want to have a relationship with a company and with a brand that's relevant, and they can relate to as a human being. It's very powerful.

Marketing practitioners are cognizant that the relationship between their companies and end users goes both ways. They understand that their marketing activities can also be embraced by end users. An example that came up several times in interviews in the construction industry was hardhat stickers. As explained by the Director of Marketing from a hand tools company, hard hat stickers are always popular with end users:

> Because their hardhat is actually a representation of who they are: what products they use, and what they endorse. A brand like [supplier firm] on their hardhat meant that they were true professional, that they liked using professional tools, as opposed to as they would say, "The cheap Chinese crap," cause most of the tools were made at that time in Europe.

In addition, given that successfully completing tasks at work allow end user to find work meaningful (Russo et al. 2010, Frankl 2014), supplier firm brands offer the opportunity to end users to associate themselves with their professional success. In other words, the supplier firm brand can be perceived as helping the end user find meaning on the job because it contributes to the end user's success on the job. Sophisticated marketing professionals understand this aspect of end user meaning and promote it. Both the VP of Marketing from the rigging equipment manufacturer and the Director of Marketing from the hand tool company recognized the significance of end users brand tattoos. Indeed, the hand tool company hired a tattoo artist to attend a company sponsored event to provide free tattoos to end users. As summarized by the Director of Marketing from the hand tools company:

> Tattoos tell some sort of a story as I understand it, and so that was the story that they wanted to tell, that they were the consummate professional. Anybody who saw that knew that about them.

One consistent feedback from marketing practitioners is that although many in industry believe that the importance of end users is paramount, even unquestioned in some circle, it can be hard to quantify the difference that end user influence can make. The VP of marketing from the rigging manufacturer stated:

> …everybody believes that it [end user pull] drives sales, the challenge always is that none of these things are free. How do you justify an ROI versus another potential initiative that you could with the same dollars, which might be much more quantifiable in terms of what it drives to the business? What we've done, what we tend to look at is there are instances where we know that we've driven demand.

The specific marketing activities directed at end users vary depending on the industry – in a hospital, an IV supplier may set up a new IV delivery system in the break room to get the feedback from the unit nurses or an equipment manufacturer may sponsor training at a convention – but each discrete supplier firm activity is experiential for the end user and one of the foundations of a sense of connection with the supplier firm.

The most common marketing activity that equipment operators mention are hard hat stickers from supplier firms. Certainly, in the construction industry hard hats are both practical and symbols of the profession and a way for individual construction workers to express themselves with stickers. Most stickers are from visits from salespeople, but operators also pick them up at distributors or buy them at flea markets. Equipment operators also wear and collect branded hats and clothing from supplier firms. Again, the sales representative is a key contact

between the supplier firm and the equipment operator (end users). Ed, a clearing specialist, states simply, “If they [the supplier firm sales representative] come out, they give you a hat and a sticker.”

Focal Marketing Activities for Study

Although specific marketing activities may vary by industry, current marketing literature can provide insight into two common types of marketing activities and their impact on participants: product feedback to the firm and peer-to-peer support. Although most literature on product reviews pertains to how reviews impact the purchasing behavior of *other* consumers rather than the consumer who provides the review (Zhu and Zhang 2010, Chevalier and Mayzlin 2006, Ludwig et al 2013), new product development literature suggests how providing the review may affect the reviewer. Using a qualitative approach, Alam (2002) describes how user involvement influences the process and outcomes of new product development. He summarizes simply, “User involvement in the new service development process may improve the producer-user relationships” (p. 254). He describes various ways that companies can solicit feedback, including face-to-face interviews, users’ observation and feedback as well as phone, faxes, and emails (p. 256), which are of particular interest for current research. In short, including end users in the development and improvement of products by requesting feedback increases the sense of connection between the end users and the supplier firm brand, following the logic of co-creation (Vargo and Lusch 2004, Kristensson and Matthing 2008).

This literature stream also highlights the importance of involving the users for both the success of the firm and the long-term relationship with the users (Nicolajsen and Scupola 2011, Alam and Perry 2002, Nambisan and Baron 2010)). In particular, interactions with the supplier firm that have the goal of improving products will improve end users’ perception of affinity to the supplier firm. As Nambisan and Baron (2010) explain that dealings with the company can lead

"customers feeling that they are a valued partner" (p. 560). Within this research stream, authors also intuit the importance of including the right "type" of user, that is, one poised to make positive contributions because of their commitment to work (Blazevic and Lievens 2008). Here one can see the connection with logotherapy: end users who find more meaning at work are more likely to respond positively to requests for product feedback.

In short, end users will respond positively to the supplier firm's request for product feedback when they find their work to be highly meaningful because the supplier firm in this case is a conduit to increase the unique meaning that work is providing to the end user as an individual. More conventionally:

> H3: For end users who find more meaning for their lives at work (meaningfulness of work), supplier firm marketing activity request for product feedback will have a positive effect on the end user's brand attachment with the supplier firm's brand.

In addition to requests for product feedback as a marketing activity, companies are increasingly aware of the importance of the peer group of consumers as key marketing assets. Indeed, there is extensive research on the importance of brand communities, starting with the seminal piece by Muniz and O'Guinn (2001) on car brand communities in an actual residential community. As social media has become more prominent, the role of brand communities has moved online as well. In addition, companies are increasingly taking the initiative to encourage brand communities, as outlined in McAlexander et al. (2002). Thus, the encouragement of brand communities and particularly peer-to-peer communication and support are common marketing activities in both consumer and B2B contexts (Bone et al. 2015).

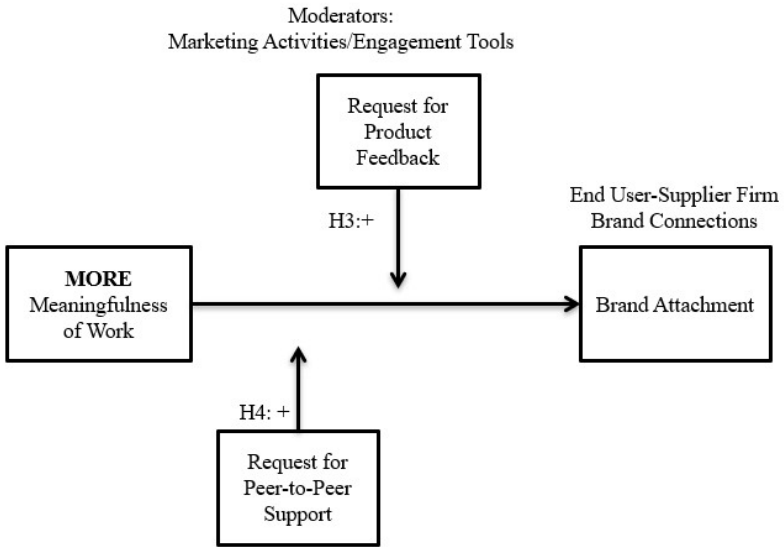
Existing research has found that providing peer-to-peer support also increases brand connections. Wang et al. (2012) examined "consumer socialization through peer communication

using social media." They found that individuals with higher product involvement exhibited a virtuous circle of reinforcement whereby initially high involvement led to even higher involvement, essentially "reinforcing product involvement" (p. 205). Integrating the qualitative findings with current research and the logic of logotherapy, I predict a similar relationship between end users who find more meaning at work and the supplier firm marketing activity of requesting peer-to-peer support. In this case, end users will respond positively to the supplier firm's request for peer-to-peer support when they find their work to be highly meaningful because the supplier firm brand is providing an opportunity for the end users to connect with peers and build shared meanings or values. The supplier firm is a conduit for shared meanings with others (values), building upon the unique meaning or sense making that the supplier firm has given to the individual end user, thus reinforcing the meaning(s):

> H4: For end users who find more meaning for their lives at work (meaningfulness of work), supplier firm marketing activity request for peer-to-peer support will have a positive effect on the end user's brand attachment with the supplier firm's brand.

In short, the supplier firm marketing activities will magnify the positive effect that a highly central work identity has on the end user's brand attachment with the supplier firm's brand. See Figure 7 below.

Meaning Provided by Work as Driver of Work-Brand Attachment: Moderating Effect of Supplier Firm Marketing Activities When Work Provides MORE Meaning



End users are less likely to respond positively to the supplier firm's request for product feedback when they do not find a sense of meaning at work because it is (relatively) not important for them to improve the products they use at work. They do not rely on work to find meaning in their lives. In this sense, a supplier firm requesting product feedback may actually elicit a negative response because they would rather focus their energy on non-work issues. Formally,

> H5: For end users who find less meaning for their lives at work (meaningfulness of work), supplier firm marketing activity request for product feedback will have a negative effect on the end user's brand attachment with the supplier firm's brand.

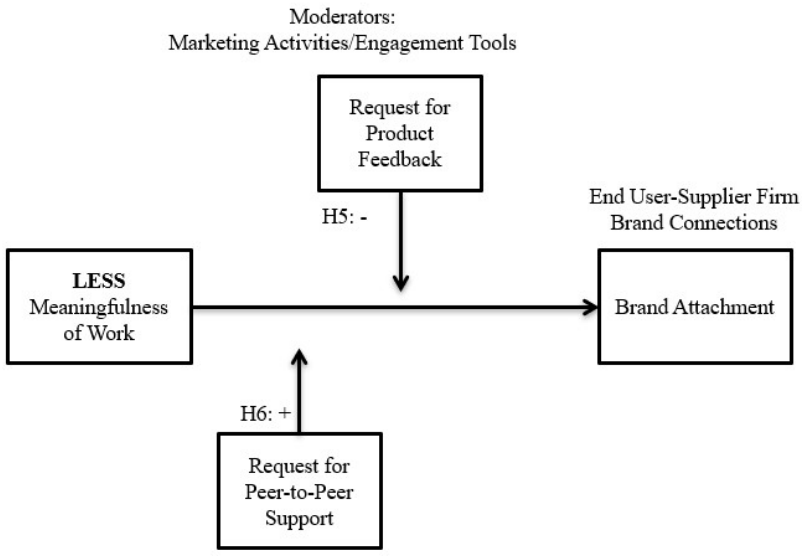
End users are likely to respond positively to the supplier firm's request for peer-to-peer support when they do not find a sense of meaning at work because the supplier firm brand is

providing an opportunity for the end users to connect with peers and build shared meanings or values. As explained in Nambisan and Baron (2010), "…solutions to peer customers' problems signal one's product-related knowledge and allow customers [end users for current research] to enhance their reputation or status" (p. 559). In this case, the supplier firm is a conduit for shared meanings with others (values):

> H6: For end users who find less meaning for their lives at work (meaningfulness of work), supplier firm marketing activity request for peer-to-peer support will have a positive effect on the end user's brand attachment with the supplier firm's brand.

See Figure 8 below:

Meaning Provided by Work as Driver of Work-Brand Attachment: Moderating Effect of Supplier Firm Marketing Activities When Work Provides LESS Meaning



Again, relying on the logic of logotherapy and current research both on product feedback and peer-to-peer support as marketing activities, current research asserts that end users who have had a positive on-the-job experience with the supplier firm's brand will overall respond positively

to both product feedback and peer-to-peer support. For example, in the new product development literature, the interest of the customer innovators in contributing feedback to the company is based on previous experience with the product and the firm (Nambisan 2002). Nambisan and Baron (2007) argue that involving customers in "virtual customer environments," which offer both product feedback and peer-to-peer support platforms, will generate changes in their attitude towards the firm based on their experiences (p. 44). Additionally, Nambisan and Baron (2010) assert that:

> … a better understanding of how their innovative contributions would be considered by the company or incorporated in the innovation process may enable customers to feel like "part of the product development team" or more tightly integrated with the company" (p. 600).

In other words, a marketing activity requesting product feedback from end users may lead them to feel a stronger sense of connection, such as brand attachment, to the supplier firm brand.

Logotherapy further implies that end users who have had positive on-the-job experience with a brand will respond positively because the supplier firm brand has enhanced task completion on the job and the subsequent meaningfulness of the job for the end user. For product feedback in particular, Nambisan and Baron (2007) explains that positive affect is driven by "beliefs related to the benefits customers expect to receive from their participation" (p. 44), that is improved future experiences on the job and, as suggested by logotherapy, enhanced task completion and more meaningfulness on the job. In short, in this case, the supplier firm marketing activities will magnify the effect of the positive on the job brand experience. More formally:

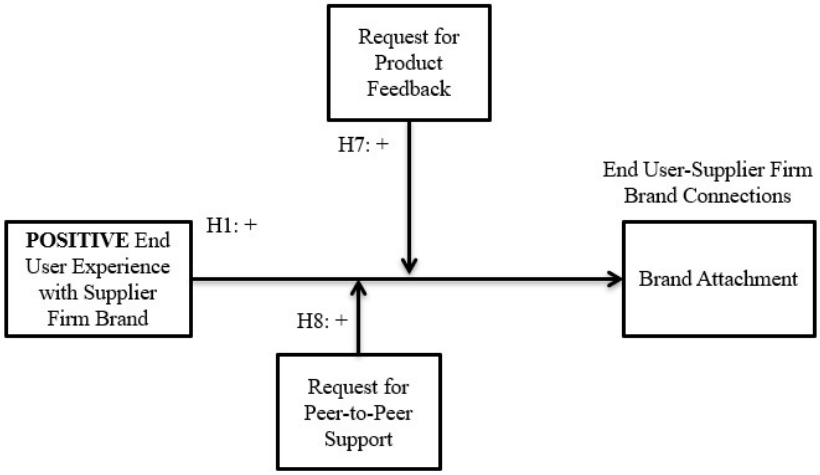
> H7: The more positive an end user's job experience with a supplier firm's brand, the more likely the supplier firm's marketing activity, request for product feedback, will increase the end user's brand attachment.

Nambisan and Baron (2007) also explain that peer-to-peer support activities offer "social integrative benefits that relate to strengthening the consumer's ties with relevant others" (p. 44). This echoes the logic in logotherapy whereby individuals can benefit from shared meanings or values when they are in similar "situations," such as the work context in this case. Shared positive experience with the brand can provide the foundation for this interaction. As explained by Nambisan and Baron (2007), "In product-based community, the primary basis for the members to relate to one another is their affiliation with the product, that is, product-related interactions or 'storytelling' … to establish the norms and values that would bind them together" (p. 47). I predict thus:

> H8: The more positive an end user's job experience with a supplier firm's brand, the more likely the supplier firm's marketing activity, request for peer-to-peer support, will increase the end user's brand attachment.

See Figure 9 below:

End User Experience with Supplier Firm Brand as Driver of Work-Brand Attachment: Moderating Effect of Supplier Firm Marketing Activities with Positive End User Experience with Supplier Firm Brand



End user's primary experience with a supplier firm's brand is on the job and is not necessarily positive. When end users have a negative experience with a supplier firm brand, they may in general be less receptive to the supplier firm's marketing activity because they harbor resentment about having to use a brand every day that hinders their ability to get their work done. In logotherapy terms, in this case the supplier firm brand has hindered the creation of meaning for the end user. However, when a supplier firm asks the end user for product feedback, it provides the end user with the opportunity to affect change on the products that they must use every day. In other words, the supplier firm is implicitly committing to improving the products and thus improving task completion, thus leading the end user to anticipate benefits, such as fixing low performance (Nambisan and Baron 2007, Nambisan and Baron 2010). This will improve the end user's connection to the supplier firm brand.

> H9: The more negative an end user's job experience with a supplier firm's brand, the more likely the supplier firm's marketing activity, request for product feedback, will increase the end user's brand attachment.

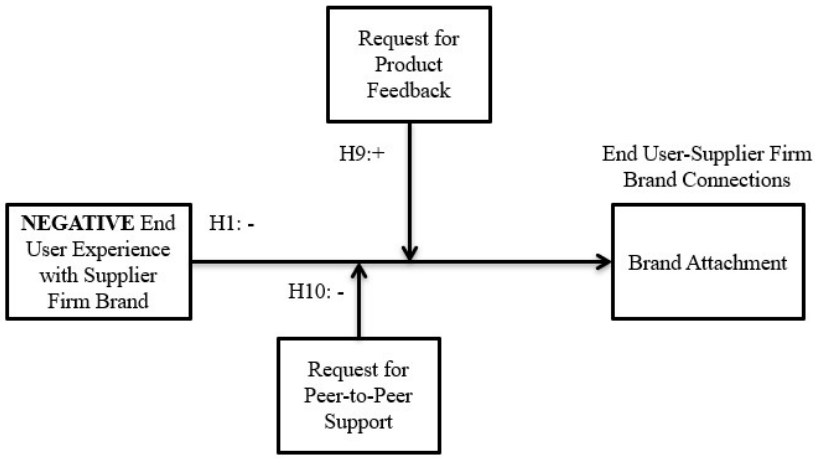
When the end user's job experience with the supplier firm brand has been negative, the end user is less likely to positively respond to a request for peer-to-peer support from the supplier firm for two reasons. First, the end user will not want other end users to associate her/him a negatively perceived brand. The end user will want to distance himself/herself from the shared meanings (values) offered by the supplier firm brand. As Frankl (2014) explains, "He [man] is always free to accept or reject a value he is offered by a situation" (p. 39). Second, explaining to other end users how to best use a negatively perceived brand will remind the end user of the negative experiences of the brand – in short – remind the end user of how the supplier firm brand is hindering task completion. Nambisan and Baron (2007) also explain that online interaction may

also be a vicious circle whereby negative experiences can compound to even more negative affect toward the firm (or the brand in this case) (p. 49). More formally:

> H10: The more negative an end user's job experience with a supplier firm's brand, the more likely the supplier firm's marketing activity, request for peer-to-peer support, will decrease the end user's brand attachment.

See Figure 10 below:

End User Experience with Supplier Firm Brand as Driver of Work-Brand Attachment: Moderating Effect of Supplier Firm Marketing Activities with Negative End User Experience with Supplier Firm Brand



Outcomes of Brand Attachment

Current research proposes that the end user brand attachment to the supplier firm brand is followed by behavioral intentions both on the job and off the job. These types of behaviors fall broadly into the relatively new domain of engagement behaviors. Most recently, Harmeling et al

(2017, p. 316) define customer engagement as "a customer's voluntary resource contribution to a firm's marketing function, going beyond financial patronage." Indeed, Harmeling et al (2017, p. 322) elucidate how "experiential" marketing initiatives "stimulate heightened psychological and emotional connections to the firm, brand, or other customers," as found in the qualitative interviews with end users for the current research. Pansari and Kumar (2017) posit that engagement is based on satisfaction and emotion (p. 300). This implies a unique psychological antecedent to engagement behaviors, described in this research as connections with the supplier firm brand.

In short, I assert that the blossoming of engagement behaviors is similar for end users in a B2B context as in other contexts and that, specifically, engagement develops after interactive/co-creative experiences as explained above. However, there are two important contextual distinctions in a B2B environment: compulsory use of the brand (product/service) on the job, as well as the meaningfulness of the supplier firm brand for the individual end user (Russo et al 2010). Considering the Harmeling et al. (2017) definition of engagement, "a customer's voluntary resource contribution to a firm's marketing function, going beyond financial patronage" (p.316), I propose a slight modification for the end user context: end user engagement behaviors comprise end users contributing to a supplier firm's marketing function. In short, the engagement behaviors themselves would also be specific to the work environment. For example, an operator's requesting of a certain brand of track hoe would be an engagement behavior, as would wearing supplier firm logos at work or in a context outside of work where other co-workers could be present.

The findings from the interviews support the assertions in the literature. For example, heavy equipment operators may put supplier firm stickers on their hats as a way to show that they are attached to the supplier firm brand, but they also profess to understand that they are advertising for the supplier firm brand. Tim the pipe layer explained:

> Anytime I can pick up stickers for the hardhat or something like that, yeah, in so far as advertising for the different types of machinery, yeah. Yeah, this is who I am, so I guess that my Caterpillar sticker says hey, I like to run Caterpillars.

Thus, by wearing the supplier brand sticker on their hat, the construction operators are advertising for the supplier firm brand (in harmony with engagement marketing as defined by Harmeling et al. 2017).

From the perspective of the supplier firm, one of the most important behaviors that end users engage in is attempts to influence what type of equipment they end up getting for their day-to-day duties. The discussions with heavy equipment operators reveal individuals who believe that in most, but not all cases, the decision maker in the supplier firm will respect their preferences and try to get them the equipment they prefer. Jon, grading foreman, requests specific equipment, both to his manager, and the owner of the company, which owns approximately $90 million of construction equipment. He talked through his process:

> We're trying to get a brand-new dozer right now. I told them that's what I wanted. Our head mechanic and our owner. And they're supposedly working on taking care of it. So, I just told him, as far as equipment, now, as I said, I talk to the equipment manager, or I'll talk to Bill [the owner]. Well, I told him [the owner] the pipe crew has a brand new D6N [Caterpillar], and we want one just like it. Yeah. Told him exactly what we want.

Jon also tries to respect requests from his crew members. He stated, “The guy that runs the dozer got to run it [from another crew], and he liked it and wanted it. I try to get ... If they tell me they want something, I try to see that, work it where they can get it.” In the past, he has been able to

get the equipment he requested, and he thought he would get the new Caterpillar D6N – a new one starts at $350,000.[7]

Certain operators highlighted that not all companies listen to operator preferences when making decisions about equipment. Ed, clearing specialist, explained, “Some companies if you just run a tractor they don't ... They just look at you like you're just another ... I don't know ... another person, but here they treat you with respect. If you need anything they give it to you. Anything. I don't care what it is.” Mark, finishing, explained that the owner regularly asks operators what kind of equipment they prefer. He stated:

> …the owner of the company come up to me and ask me what kind of dozer would I like to operate, I told him a John Deere. I don't know why he asked, he just, he come up and say, "You're a professional, tell me what you like.’ Right, right. I guess he just wanted to know what I preferred, which he told me, he said, ‘I prefer John Deere too.’

Many operators both pride themselves on being able to make any piece of equipment work – “I’m not a diva,” Andy, says – but still voice their preferences. Ron explained:

> A lot of it is preference. He'll ask you what do you like. He'll usually ask you and then, he'll get it for you. Bill is great. Bill is the best guy I've ever worked for and he'll ask you, "What are you comfortable with?" If it's not out of reach. John Deere, they make a good backhoe but they're kind of high. Like, when I came to work here, he was like, "So, what kind of tractors did you run?" I said, "Well, I ran John Deere and a few Komatsu and Cat." I said, "It doesn't really matter.

[7] https://www.kompareit.com/business/constuction-equipment-bulldozers-medium-cat-cost.html, viewed February 20, 2018.

> They all work the same." I don't care. I mean, if the man is going to pay three or $400,000 for a tractor, don't gripe about it. Just use it.

Ron also described trying to make a piece of equipment work:

> But he [the owner] did say ... He sent me a Komatsu loader one time and he said, "I got a brand-new Komatsu loader. Do you want it?" I had an old John Deere and I said, "Well sure. We'll try it." He said, "I don't know how they're going to be because we hadn't ever bought none but ..." I said, "Well, bring it on out here. We'll try it."
>
> I told him it didn't have enough weight in the rear end. They needed another counter weight on it. They tried to get another counter weight for me. We put water in the tires to try to ... because it wouldn't pick up what I could pick up everything ... Like, with the John Deere I could pick up my ditch boxes but with the Komatsu I couldn't. It just wouldn't do it.
>
> So, we put water in the tires and that added a couple two or 3,000 pounds. Still wouldn't do it and they looked for a counter weight and I just kept telling him it just wasn't safe to tote pipes like that with a tractor with that light in the rear end. So, they kind of ... I guess they figured they would send it to a crew that didn't do pipe. So, they send it to Virginia to a crew that was doing some, I guess, street work and stuff. Then, they sent me the John Deere, one of the ones I like because they have the right counter weight and they have the right balance and all that kind of stuff. So yeah, he did ask about that. So, I told him.

Ron has even called the owner directly when he was not able to get the necessary equipment through normal channels. Importantly, he acknowledged that, even when most employees might feel comfortable speaking up, the tenure of an employee will impact how much influence the

employee has: “If you work at the same place for a while. You got 20 years’ experience in one place, they know you. Then, you can probably have that relationship where you say, “Hey, man I don't like that tractor.’”

Operators understand that productivity is key, and they evaluate equipment based on hoe it helps them get the job done. They use the concept of productivity or time saved to justify why they want certain equipment. Ron, pipe layer, elucidated:

> It's all about time. It's all about how much you get in the ground. I mean, you got to have the right tractors for the right job. He [the owner] gets us that. He told me, ‘If you don't have it and you need it you get it. You call me and I'll get it.’ Because it's wasting his time and money. …I mean, if we can't do the work. If we can't do the work and it's taking us twice as long, he's losing money. Fuel, man hours, wear and tear on his tractor because you're doing twice the hard work that the big tractor wouldn't have to. It just makes sense. I mean, he's told me several, several times, ‘If you don't have what you need, and you can't get it, you call me personally and I'll make sure you get it.’

On the job, equipment operators also talk with other equipment operators about the different brands, sharing opinions and influencing each other. Andy, pipe layer, described, “All of us operators if we're talking or whatever [about the brand SANY], everybody'll ... Well, not everybody. There's a few people I've talked to that actually like the SANYs and think they're wonderful tractors, but it's very few.”

Outside of work, end users also find opportunities to highlight their brand to supplier firms. Following the logic suggested in literature (Harmeling et al. 2017), the experience and meaning of work (Russo et al 2010) encourages end user to use supplier firm brands to connect with other end users in non-work environments. Mike, finishing, talked about how advertising for

a supplier firm brand – Caterpillar – outside of work can lead to interactions with other people from the same industry. He states:

> Caterpillar is a very well known ... I mean, it's the number one brand especially in America. They're the biggest, they are the best. A lot of their equipment is second to nobody and they are phenomenal. I have no problem advertising for them or ... Not necessarily advertising for them, but like I said, it's part of who I am. It's what I do for a living. If somebody wants to ... Somebody might see a Cat tattoo on my arm one day and say, "Hey, what do you operate? " and it'll strike up a conversation.

Indeed, for some operators, one of the primary benefits of wearing supplier firm brands outside of work is connection with other people in the industry. Jeff, grading, who is a Nascar fan, clarified, “Just like if you go to a race event, and you're wearing a Caterpillar hat, either a Caterpillar sponsor is one of the race cars, and somebody may ask, ‘You run equipment?’ We may get into a little conversation.” In fact, Jeff believed that one of the advantages of the brand Caterpillar is that individuals in the business and outside of the business know what type of products Caterpillar makes. Jeff explained:

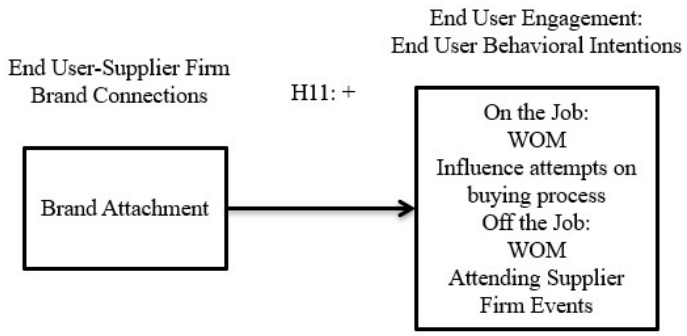
> I've still got some CAT just because it's a CAT hat. It's a name brand. People recognize it. If you wear a Komatsu hat, some people may not recognize that, where other people, a Caterpillar they recognize that name. They know what it is. …The John Deere name, because it's the green hat, the green tractor, they're more agricultural. Caterpillar is more commercial and industrial type equipment I think.

More formally, the more invested end users are with the supplier firm brand, through a higher level of brand attachment to the brand, the more likely end users are to exhibit engagement marketing behaviors both on and off the job, or:

> H11: The stronger the end user's brand attachment to the supplier firm brand, the more likely the end user is to demonstrate engagement marketing behaviors both on the job and off the job.

See Figure 11 below:

End User Brand Attachment and Engagement Behaviors



Given the assertion that end users may demonstrate engagement behaviors at work as inspired by a sense of connection with the supplier firm's brand, the question remains: what differences does it make? Although the literature is sparse on the particularities of how end users influence the buying process compared to other groups within the customer firms, with a few exceptions (Berkowitz 1986), there exist several models of organizational buying behavior (Bellizzi 1979, Makkonen, et al 2012, Robinson et al 1967, Sheth 1973, Spek and Stern 1979, Weitz 1981).

However, the model proposed by Kohli (1989) has the distinction of integrating characteristics of the individual, actual behavior of the individual, features of the customer firm and the particular buying situation. His framework allows one to consider the buying process holistically from the point of view of the end user and his or her attempts to influence the process. Specifically, based on Kohli's model of influence in organizational buying, an individual end user's influence can be measured based on his or her power basis and based on the individual's actions or behavior intended to influence the buying decision, such as vocally supporting a product in a meeting, sending an email, etc. Although Kohli's model considers the various power bases as first proposed by French and Raven in 1959, in the case of end users and for the purpose of the research outlined in this paper, the most relevant power base is Expert power; by definition, as users of the product or service in question, end users are the experts. Expert power can be defined as the ability to influence others in the organization based on experience and expertise in a specific area (French and Raven 1959). In fact, Kohli's research concludes: "expert power is the most important determinant of … influence." (Kohli 1989, p. 61) This finding supports the notion that end users are important stakeholders even if they are not the decision makers for most purchases in a B2B environment.

Importantly, Kohli's analysis (1989) finds that influence attempts have a significant effect on the buying process. Kohli explains, "…stronger influence attempts … lead to greater manifest influence." (p. 55) Thus end user engagement behaviors would on average push the decision makers in customer firms toward the supplier firm brand preferred by end users.

Control: End User Identification with the Customer Firm (Employer)

As explored previously, how individual's job experience with a brand and especially how the meaningfulness of his or her work translate into supplier firm brand attachment will vary from one individual to the next, because each individual is unique and meaning is context specific (Frankl 2014). That said, analysis of the qualitative interviews suggests two emergent themes that

are outside of the focus of current research but may influence the relationship between the main effects and the development of brand connections: end user personality and end user identification with the customer firm. I propose to control for these factors to clarify the relationships between the variables of interest.

Although the extensive literature on social identities explains how individuals can have conflicting social identities (and of course harmonious identities), there is little research on how consistent identification with the employer (the customer firm) can influence employee's relationships with other groups. However, emergent coding of the end user transcripts suggests that individuals who strongly identify with their employer (the customer firm) are less likely to develop strong feelings for (brand attachment) and strongly identify with the supplier firm brand they use on the job, although they may be more likely to express their opinions about equipment to management (use of voice).

One group of operators in particular from the same earth moving company essentially idolize the owner of the company. When talking about the owner, Ed, clearing specialist, explained:

> He [the owner] come out here ... Like most companies if the owner comes out, he'll just throw a hand up at you, will keep on going. But he'll get out, he'll go to everybody on this whole job, and shake their hand, and ask you how you're doing, how your wife doing, how your kids doing, do you need anything, let him know. He does that to everybody.

Emergent coding suggests that this same group of operators preferences for certain supplier brand products but are less inclined to develop emotional or sense of self connections. For example, when asked about wearing supplier firm branded hats on the weekend, Ted, finishing, expounded, directly linking his commitment to the company with his choice on the weekend:

> No, I wear my Scarborough, Scarborough [company name] hat. Everywhere. It's always my Scarborough hat… Bill [the owner] is an awesome guy though… You'll never find anybody that'll say anything bad about him. Never. Even people that don't work here. I'm not saying that because I work for him but, he's just an awesome guy to work for… Yeah, last time I talked to him he asked if I was doing okay. I told him yeah, he'd have to get a restraining order to get rid of me. I'm not going anywhere. I don't have that much longer. I'm 56, so I got another 10 years.

Ron, pipe layer, expressed a similar loyalty to the owner, his employer:

> As long as he's happy with me, I'm happy with him and the pay is good so that don't bother me. I'm good with it. He takes care of me and I appreciate what he does for me… I don't know if everybody else agreed. I hope everybody will agree with him because he's a good guy and he does a lot of good things for the community and stuff.

Although social identity theory (Tajfel 1974, Ashforth and Mael 1989) implies that individuals can identify with harmonious and conflicting identities within the same context – such as an organizational work context – findings from the end user interviews suggest that in fact strongly identifying with one's employee reduces interest and attachment to supplier firm brands. Logotherapy (Frankl 1959, 2014) provides an explanation for this phenomenon. If the end users are finding meaning and values with in their roles in the customer firm, their cup is already full in terms of meaning supplied by work and thus they are not looking for meaning or values (shared meanings) from the supplier firm. It is thus important to control for end user identification with the customer firm to be able to clearly understand the relationships between meaningfulness at work, end user job experience with customer firm, and end user supplier firm brand attachment.

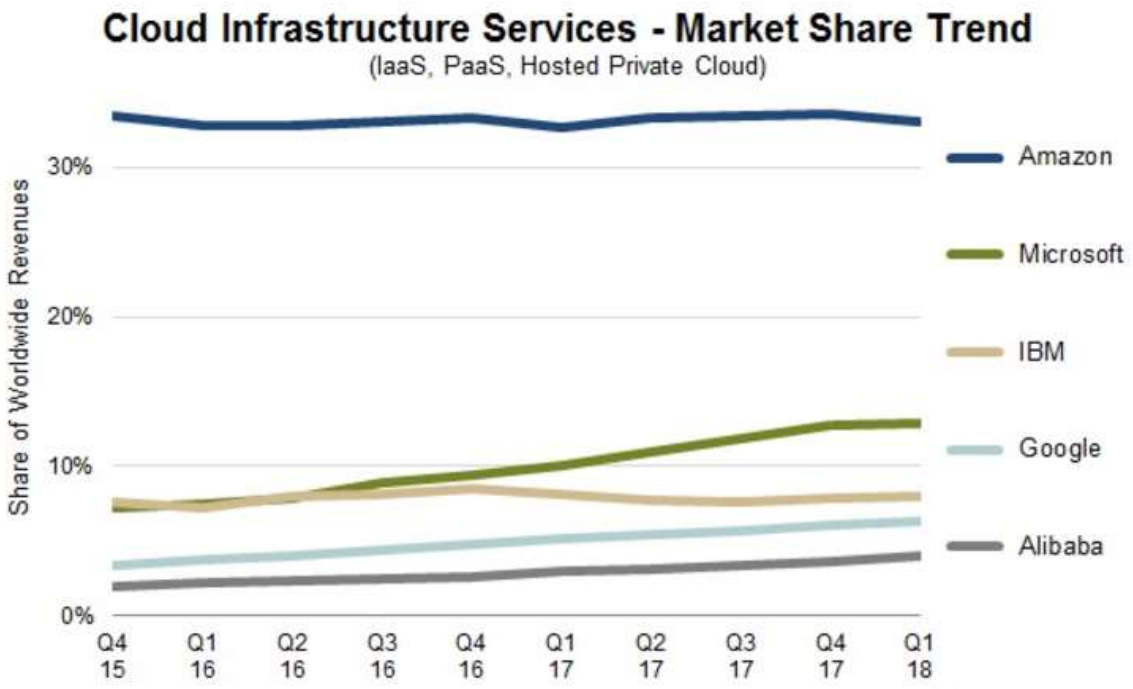
CHAPTER III

METHODOLOGY: SURVEY EXPERIMENT WITH B2B SUPPLIER FIRM BRAND

The survey experiment is designed to establish the importance of B2B supplier firm marketing activities for the development of strong feelings for supplier firm brands. Two types of marketing activities will be used, one designed to appeal to the individual's need to infuse their life with meaning based on a productive work persona and the other designed to appeal to the importance of helping others as a way to find meaning in their lives. The final dependent variables will be intentions to behave on the job in a manner that is beneficial for the supplier firm, such as attempts to influence the buying process, which fall within the scope of engagement behaviors as discussed previously.

Sample

An appropriate list of end users was identified with the help of a third-party panel provider: Research Now/Survey Sampling (www.surveysampling.com). Research Now/Survey Sampling manages many B2B survey panels. For this project, their panel of software engineers was used, with the focal supplier firm being Amazon Web Services. Amazon Web Services (AWS) is a cloud computing service offered by Amazon that is widely used by software engineers to complete their daily tasks at work, as well as longer term business goals. AWS is the leading service provider for cloud services. AWS was chosen as the focal supplier firm brand because of its market prominence (Novet 2018) and thus the increased likelihood that members of the panel would be familiar with the AWS brand. Please see the below Figure 12 from CNBC for a breakdown of market share by cloud services providers.



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[8] https://www.cnbc.com/2018/04/27/microsoft-gains-cloud-market-share-in-q1-but-aws-still-dominates.html, viewed on January 17, 2019

The cloud computing space is an appropriate context to explore strong feelings of connection between end users and supplier firm brands because cloud services can be a crucial tool for software engineers to complete their job tasks and excel in their work. The published user testimonials from AWS's website illustrates some of the strong emotions that software engineers can have for AWS' multitude of cloud solutions. From Inrix, connected car services:

> From raw GPS points, INRIX generates large-scale vehicle movement data and ingests the data into sharded Amazon RDS for PostgreSQL instances. We are hitting the storage and performance limits per shard and looking for a more scalable solution. With Amazon Aurora's compatibility with PostgreSQL, we've seen three times performance improvements in our benchmarks. We love Amazon Aurora's ability to scale storage independently of computing resources at better price points.[8]

From New Innovations, medication education:

> Thanks to AWS and Amazon Aurora PostgreSQL, our company has been able to build an infrastructure that scales to meet our customers' demands. We found that Aurora PostgreSQL is a drop-in replacement for Amazon RDS PostgreSQL, with a few very important improvements: write throughput and automatically-expanding storage. We migrated 700+ instances of Microsoft SQL Server, and LOVE the simplicity of management that Aurora PostgreSQL provides. Gone are the days of dealing with tuning and tweaking configuration files for optimal performance.[9]

For the hypothesized relationships in current research to work, it is important that the end user perceive the supplier firm as the entity that is behind the marketing activity (Nambisan and

[9] From https://aws.amazon.com/rds/aurora/customers/, viewed on January 17, 2019.

Baron 2007, 2010, and Alam 2002). For this reason, the survey implied that Amazon was seeking feedback from the survey respondents. The beginning of the survey read:

> We invite you to participate in this survey to better understand your experience with Amazon Web Services (AWS) and challenges on the job. We are seeking feedback from approximately 400 cloud service users. Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time.
>
> Your responses are anonymous and will be stored without personal identification information. The research team works to ensure security to the degree permitted by technology. It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online. However, your participation in this online survey involves risks similar to a person's everyday use of the internet. If you have concerns, you should consult the survey provider privacy policy at: https://www.qualtrics.com/privacy-statement/
>
> The information your give in the study will be anonymous. This means that your name will not be collected or linked to the data in any way. The researchers will not be able to remove your data from the dataset once your participation is complete, and there will be no way to identify you from the dataset. The principal investigator, Amy Fehl, is the only individual with access to the full dataset. The dataset will be stored for a maximum of 36 months.
>
> Your participation is completely voluntary, and your decision whether or not to participate in this study will not affect your position on the panel. Participation is not expected to be associated with any risks beyond risks present in everyday

> life. The Institutional Review Board (IRB) for the protection of human research participants at Oklahoma State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigator, Amy Fehl, at amy.fehl@okstate.edu. If you have questions about your rights as a research volunteer or would simply like to speak with someone other than the research team about concerns regarding this study, please contact the IRB at (405) 744-3377 or irb@okstate.edu. All reports or correspondence will be kept confidential.
>
> If you agree to take the survey, you can expect the survey to take between 5 and 10 minutes to complete. There are no right or wrong answers. You can skip any questions that make you uncomfortable and can stop the interview/survey at any time.
>
> By clicking the "next" button below, you agree that you are at least 18 years of age; that you have read this consent form; and that you voluntarily agree to participate in this survey. If you choose not to participate, please close this browser window.

It was revealed to respondents at the end of the survey that AWS was not behind the survey with the following text: “Thank you for taking the time to complete our survey. This survey was in fact part of a research study for an American university and is not affiliated or associated with Amazon in any way, but responses may be shared with Amazon in an anonymous format.”

Experimental Manipulations, Measurements, and Controls

Current research relies on a survey experiment where end users will be randomized into one of two experimental conditions or two controls. The experimental conditions as explained below reproduce common marketing activities seen in a B2B environment: request for product

feedback (as evidenced in the qualitative interviews conducted for this research and also seen in literature such as Alam and Perry 2002 and Duncan and Morairty 1998) and request for peer-to-peer support (also evidenced in the qualitative interviews and in literature such as Wang et al. 2012 and Nambisan and Baron 2007, 2010).

The distinction between this design and that of a typical survey is twofold. First, the target group of respondents represent the exact context for this research topic – end users who use the supplier firm brand to complete their daily job requirements or tasks, using the language of logotherapy. Second, the targeted individuals are actual marketing targets for AWS. In other words, they are individuals who could actually receive marketing materials from AWS (and probably have), and as a consequence any affect that the experimental manipulation may have on them could impact how they behave in their actual job, that is, "the real world." Thus, this survey experiment is designed to exemplify and in fact incarnate actual B2B marketing initiatives.

Survey respondents (end users) will be randomized into one of four groups: request for peer-to-peer support, request for product feedback, and the two control groups. The two control groups are explained below. Respondents will answer the survey over a number of separate web pages or separate pages on smart phones. Each set of questions will be on a separate page. Respondents will first answer questions pertaining to their job role and their employer. Then they will respond to the questions pertaining to the meaningfulness of their work and the performance of the supplier firm brand [Amazon Web Services] on the job. They will next answer the questions for the controls, that is, use of AWS on the job, role at the customer firm, and employee-customer firm identification (based on the name of the respondent's employer as indicated earlier). The respondents will then be randomized into one of the four groups. They will first complete the marketing activity, either product feedback or peer-to-peer support, or one of the control marketing activities, prior to the brand attachment questions. Finally, they will complete the behavioral questions.

Manipulations

Supplier Firm Marketing Activity: Request for Feedback to Improve the Product or For New Product

"AWS is seeking feedback from users about how they can improve their offerings. Specifically, the goal is to pass these insights along anonymously to AWS management and engineers, who could use them to improve the services you use every day. Please write out suggestions below on what would make AWS work better, allowing you to be more productive on the job. Please write at least a couple of sentences (or more) in your response."

The respondent will have a text box in which to write comments and will receive request to write in the box if they do not have at least 100 characters.

Supplier Firm Marketing Activity: End User-to-End User Support

"AWS is seeking feedback from users about best practices for using AWS. Specifically, the goal is to pass these insights along anonymously to other users of AWS, who might use them to improve the work they do every day. Please write out suggestions below on using AWS offerings that would help others be more productive on the job. Please write at least a couple of sentences (or more) in your response."

The respondent will have a text box in which to write comments and will receive request to write more if they do not write at least 100 characters.

Supplier Firm Marketing Activity: Control 1: Product Use

"Please explain how you use AWS for your job. Your insights will be shared anonymously with AWS management and engineers. Please write at least a couple of sentences (or more) in your response."

The respondent will have a text box in which to write comments and will receive request to write more if they do not write at least 100 characters.

Supplier Firm Marketing Activity: Control 2: Job Challenges

"What are the two biggest challenges for you on the job? Your insights will be shared anonymously with AWS management and engineers. Please write at least a couple of sentences (or more) in your response."

The respondent will have a text box in which to write comments and will receive request to write more if they do not write at least 100 characters.

Manipulation Checks

As a manipulation check, respondents will be asked, "Thinking of the feedback you provided to AWS, please indicate the degree to which you agree with the following statements," using a 7-point Likert scale.

- AWS will use my feedback to improve future and/or existing products
- AWS will use my feedback to help other users be more productive

Antecedents

Meaningfulness of Work

May et al (2004) define meaningfulness of work as "the value of a work goal or purpose, judged in relation to an individual's own ideals or standards" (p. 14), following the organizational behavior's definition of meaningfulness as the meaning unique to the individual. These authors developed scale to measure meaningfulness for the individual that has been widely used in organizational behavior. As predicted by logotherapy, individuals may all strive for meaning in their lives, but each individual will find varying levels of meaning at work, as evidenced in the below scale.

Meaningfulness of Work, from May et al 2004
The work I do on this job is very important to me.
My job activities are personally meaningful to me.
The work I do on this job is worthwhile.
My job activities are significant to me.
The work I do on this job is meaningful to me.
I feel that the work I do on my job is valuable.
Measured on a Likert Scale from 1 to 7, with 1 = Strongly Disagree and 7 = Strongly Agree

Job Experience with Supplier Firm Brand

Logotherapy is explicit in that meaning at work is found in the completion of tasks or the creation of things. Supplier firm brands are distinct from consumer brands because they offer a path to meaning to the individual end user by assisting the end user complete tasks at work, essentially helping the end user do her/his job well. The question then is: How much of work success is attributed to the supplier firm brand? To capture the end user's on-the-job experience with supplier firm brands, current research proposes to use a modified job performance scale from organizational behavior literature.

The Welbourne et al. (1998) scale is widely used to measure role-based performance on the job, with a focus on the specific context of the job and task performance. The scale is designed to be used for manager to rate employees and for employees to self-rate. Thus, for item #7 for example, the manager would rate the employee on "Making progress in his/her career," whereas the employee would self-rate on "Making progress in my career." The scale development was based on employee self-rating (Welbourne et al. 1998, p. 545). Please see below for the full scale.

Original Role-Based Performance Scale, Employee Version (Welbourne et al 1998)
Job (doing things specifically related to one's job description)
1. Quantity of work output
2. Quality of work output
3. Accuracy of work
4. Customer service provided (internal and external)
Career (obtaining the necessary skills to progress through one's organization)
5. Obtaining personal career goals
6. Developing skills needed for his/her future career
7. Making progress in his/her career
8. Seeking out career opportunities
Innovator (creativity and innovation in one's job and the organization as a whole)
9. Coming up with new ideas
10. Working to implement new ideas
11. Finding improved ways to do things
12. Creating better processes and routines
Team (working with co-workers and team members, to ward success of the firm)
13. Working as part of a team or work group
14. Seeking information from others in his/her work group
15. Making sure his/her work group succeeds
16. Responding to the needs of others in his/her work group
Measured on a Likert Scale from 1 to 5, with 1 = "needs much improvement," 2 = "needs some improvement," 3 = "satisfactory," 4 = "good," and 5 = "excellent."

For the purposes of this research, the scale was adapted to reflect the experience that the end user has had with the supplier firm brand on the job. In keeping with the logic of logotherapy, items were retained that related to task performance. In addition, for consistency and respondent comprehension, the Likert 1 to 7 scale will match the scales for the other items.

Role-Based Performance Scale, Employee Version (Welbourne et al 1998), Adapted for job experience with supplier firm brand:
Job (doing things specifically related to one's job description)
1. Using the supplier firm brand increases the quantity of my work output
2. Using the supplier firm brand increases the quality of my work output
3. Using the supplier firm brand increases the accuracy of my work
Career (obtaining the necessary skills to progress through one's organization)
5. Using the supplier firm brand helps me obtain personal career goals
7. Using the supplier firm brand helps me progress in my career
Innovator (creativity and innovation in one's job and the organization as a whole)
11. Using the supplier firm brand helps me find better ways to do things
12. Using the supplier firm brand helps me create better processes and routines
Measured on a Likert Scale from 1 to 7, with 1 = Strongly Disagree and 7 = Strongly Agree

End User Brand Attachment

Brand attachment can be defined as "the bond that connects a consumer with a specific brand and involves feelings toward the brand. These feelings include affection, passion, and connection" (Malar et al. 2011, p. 36). The brand attachment scale developed by Thomson et al. (2005) and widely used has the individual rate a series of "feelings" toward the brand in question: affection, love, connection, passion, delight, captivation. This brand attachment scale has shown discriminant validity as compared to brand involvement (Malar et al. 2011), brand attitude strength (Park et al. 2010), brand equity (Yoo and Donthu 2001), and brand love (Batra et al. 2012). Given the level of (intense) interaction on the job and interactions as the source of brand attachment and specifically meaning, current research proposes that brand attachment results from end user's experiences with supplier firm brands on the job.

Brand Attachment Scale from Malar et al. 2011
My feelings toward the brand can be characterized by trust
My feelings toward the brand can be characterized by love
My feelings toward the brand can be characterized by partnership
My feelings toward the brand can be characterized by connection
My feelings toward the brand can be characterized by gratitude
My feelings toward the brand can be characterized by affection
My feelings toward the brand can be characterized by passion
Measured on a Likert Scale from 1 to 7, with 1 = Strongly Disagree and 7 = Strongly Agree

End User Behavioral Outcomes: Engagement Marketing for the Supplier Firm

As explained previously, current research proposes that the end user's attachment to the supplier firm's brand is followed by behavioral intentions both on the job and off the job. These types of behaviors fall broadly into the relatively new domain of engagement behaviors. Most recently, Harmeling et al (2017, p. 316) define customer engagement as "a customer's voluntary resource contribution to a firm's marketing function, going beyond financial patronage." The behaviors and scales were adapted from Vivek et al. 2014 and Van Doorn et al. 2010; both scales have been widely used to measure engagement behaviors (Harmeling et al 2017). The categories of engagement behaviors considered include attempts to influence the buying process (also noted in from Kohli 1989, specific to the end user context), word of mouth, social media use, and behaviors outside of work. The list of possible engagement behaviors is not intended to be exhaustive; it represents behaviors most commonly cited in the literature and applicable in the current context of equipment operators.

End User Behaviors: Engagement Marketing, Adapted from From Van Doorn et al. 2010, Vivek et al. 2014

Attempts to influence buying process
- I would consider leaving my job if I can no longer use AWS
- I would tell my manager that I would rather use AWS
WOM
- I talk about AWS with coworkers frequently
- I talk to managers about AWS often
- I seldom miss an opportunity to talk to coworkers about AWS
Social media
- I would post a review about AWS on line
- I would discuss my experience with AWS on a job forum
- I would "like" AWS on its Facebook page
- I would take a selfie with my AWS
Behaviors outside of work
- I would wear AWS t-shirt or hat on the weekends
- I would be interested in attending an AWS sponsor event
Measured on a Likert Scale from 1 to 7, with 1 = Strongly Disagree and 7 = Strongly Agree

Controls

Prior to completing the survey, respondents were asked if they currently worked for AWS or any AWS affiliate. Individuals selecting "Yes" were screened out of the survey. Additionally, respondents were asked to choose from the following list of descriptors about their job activity, based on the question, "Which of the following best describes your current involvement with cloud services?"

- I provide technical support to individuals who use cloud services as part of their daily job
- I use cloud services as part of my daily job
- I sell cloud services
- I decide which cloud services platform my organization uses but do not use cloud services on a daily basis
- I use cloud services as part of my daily job and decide which cloud services platform I use
- I have no involvement with cloud services at my job

Individuals who selected "I have no involvement with cloud services at my job," were also screened out of the survey.

Respondents also provided information about their gender, age, native language, education level, years of experience with cloud services, and company tenure to be used as controls. Respondents younger than 21 and older than 55 were screened out of the survey per the suggestion of Research Now/Survey Sampling based on the target population for the panel. To be able to account for their relative familiarity with AWS, respondents were also asked to select from the below list based on the question, "Which of the following cloud services platforms have you, yourself, used in the past year?"

- Google Cloud
- Samsung
- IBM Cloud
- Oracle
- Alibaba Cloud (Aliyun)
- Amazon Web Services (AWS)
- Microsoft Azure Services
- Other (Please Specify):
- I have not used cloud services in the past year

To be able to control for the breadth of the respondent's experience with cloud services, the survey included the question: "Which of the following types of cloud service offerings have you, yourself, used in the past year?"

- Artificial Intelligence
- Lambda
- Video
- Analytics
- Data Storage
- None of the Above
- Other:

I also considered perceived influence over purchases to control for a sense of agency and power at work as a possible driver for brand attachment. Please see below scale items.

Perceived Control Over Company Purchases

(1) I have the power to choose which cloud services platform I use on the job
(2) I influence the decision making process for cloud services platforms
(3) For the most recent decision concerning cloud services platforms, I was the primary decision maker
(4) For the most recent decision concerning cloud services, I was able chose the platform I wanted
Measured on a Likert Scale from 1 to 7, with 1 = Strongly Disagree and 7 = Strongly Agree

Finally, end-user identification with the customer firm (employer) was measured to control for the importance of his or her employer in the respondent's life (details below).

End User Identification with Customer Firm (Employer)

End user identification with the customer firm – their employer – measures the degree to which the end user has a perception of 'oneness' with his/her employer (Ashforth and Mael, 1989; Mael and Ashforth 1992). It has both cognitive and affective components. On average, the higher the end user's identification with the customer firm, the lower the end user's sense of connection with the supplier firm's brand, because the customer firm is providing meaning to the end user's self-concept in terms of a positive work self-concept and also providing a salient peer group – other employees of the customer firm.

End User Identification with the Customer Firm Scale, from Smidts et al. 2001

(1) I feel strong ties with _____
(2) I experience a strong sense of belonging to _____
(3) I feel proud to work for _____
(4) I am sufficiently acknowledged in _____
(5) I am glad to be a member of _____
Measured on a Likert Scale from 1 to 7, with 1 = Strongly Disagree and 7 = Strongly Agree

CHAPTER IV

RESULTS FROM THE SURVEY EXPERIMENT

In this chapter, I will analyze the results from the survey experiment by first developing a measurement model for the latent variables, then exploring a sequential regression with the latent variables and the control variables for the antecedents to brand attachment, and finally modeling the relationship between brand attachment and engagement behaviors with a regression. I will also perform a post hoc analysis using a structural equation model approach. I will end this chapter with a discussion of the results.

Research Now/Survey Sampling returned 410 surveys. Respondents who did not answer what type of cloud services they used were excluded (2 respondents), and respondents who selected the same point on the Likert scales for every question, were also excluded (5 respondents), leaving a total of 403 completed surveys for analysis.

Measurement Model for Latent Variables

In social sciences, a key question for any model is what is actually being measured, and this question is particularly pertinent when the model includes latent variables. Latent variables can be defined as "hypothetical constructs, or explanatory entities presumed to reflect a continuum that is not directly observable" (Kline 2015, p 12). Latent variables are used when it is not possible to measure the construct directly. Before moving to the regression analysis piece of current research, it is important to verify that the items used for the latent variables in fact measure the same variable. For this purpose, exploratory and confirmatory factor analysis may be used.

The latent variables in this model are meaningfulness of work (antecedent to brand attachment), supplier firm brand performance (antecedent to brand attachment), brand attachment (antecedent/mediator to engagement behaviors, and two controls: end user-customer firm identification and perceived control over customer firm purchase decisions.

In this section, I use Mplus Version 8.2 to perform the confirmatory factor analysis (covariance based), following the method prescribed in Kline 2015.

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is appropriate when the constructs are established and the research desires to test relationships among the constructs (Stewart 1981). CFA is an approach used to verify that a hypothesized measurement model fits the data. In other words, the aim is to verify that the items used represent the proposed latent constructs. It assumes that the data is a sample rather than the entire population.

Using Mplus, relevant items for current research were mapped to their latent constructs and then analyzed for convergence and fit (please see Appendix D for relevant outputs for the

CFA). The unstandardized factor loadings are significant; thus, one can reject the null hypothesis that the loading is zero. This is a low bar but important to consider. The standardized factor loadings are used to judge item reliability, ideally reaching at least 0.7. All factor loadings exceed this level, except for the first item for engagement behaviors, whose standardized factor loading on the engagement behavior construct is 0.665, still relatively high.

Mplus provides the communalities (squared multiple correlations) of indicators with the constructs upon which they load with its R-Square output. This indicates the total amount of variance the indicator has in common with its construct. One is looking for R square numbers of at least 0.5 for each indicator. In this case, R square is higher than 0.5 for all of the indicators, with the important exception of the first indicator for engagement behaviors, which has an R square of 0.443. This indicator may need to be dropped from the measurement model.

Composite reliability, also known as factor rho coefficient, is considered to be a better alternative than Cronbach's alpha to judge the reliability of factor measurement in CFA models (Kline 2015, p. 313). Both Raykov (2004) and Hancock and Mueller (2001) recommend composite reliability for reflective constructs, such as the ones used in this research. In short, composite reliability assesses the internal consistency of congeneric measures. In general, a composite reliability above 0.7 is good. All of the constructs indicated good composite reliability from the measurement model. Please see Table 6 below for the composite reliability of each latent construct based on the model indicators.

Table 6: Composite Reliability CFA (1)

Construct	Composite Reliability
AWS Performance	0.955
Meaningfulness of Work	0.942
Brand Attachment	0.934
Engagement Behaviors	0.945
Decision-making Power	0.941
Company Identification	0.918

Average variance extracted (AVE) is another way to judge if all of the indicators of a construct share a high proportion of the variance in common (Fornell and Larcker 1981). Convergent validity is demonstrated when the AVE is at least greater than 0.5. As shown Table 7 below, all constructs have an AVE above 0.5.

Table 7: Average Variance Extracted (AVE) CFA (1)

Construct	AVE for Factor
Meaningfulness of Work	0.731
AWS Performance	0.751
Brand Attachment	0.671
Engagement Behaviors	0.613
Decision-making Power	0.800
Company Identification	0.691

For discriminant validity, the key concern is whether indicators for one construct in fact load onto another construct. In other words, are the constructs distinct from each other? With models such as the current model, one expects for the constructs to be related because causal

relationships are hypothesized. One measure of discriminant validity is to compare the squared inter-factor correlations with the AVE of each construct, also known as the Fornell-Larcker criterion (Fornell and Larcker 1981). Please see Table 8 below. Two constructs have AVE's lower than one inter-factor correlation. Brand attachment's AVE is 0.671, which is somewhat lower than its correlation with AWS Performance. Engagement behavior's AVE is 0.613, which is also somewhat lower than its correlation with brand attachment. This is where the theoretical relationships are key to understanding the statistical results. AWS performance is hypothesized to be an antecedent to brand attachment, and brand attachment is hypothesized to be an antecedent to engagement behaviors. It is thus less surprising to find a strong relationship between those constructs. In addition, a review of the indicators for the constructs indicate a clear delineation between the conceptualization of each construct.

Table 8: Squared Correlation Between Constructs CFA (1)

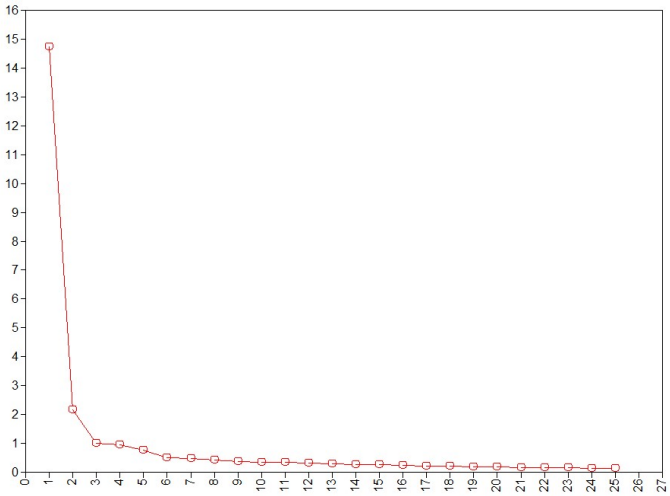
AVE on diagonal in yellow

	Meaningfulness of Work	Brand Attachment	AWS Performance	Decision-making Power	Company ID	Engagement behaviors
Meaningfulness of work	0.731					
Brand Attachment	0.249	0.671				
AWS Performance	0.242	0.706	0.751			
Decision-making power	0.154	0.421	0.449	0.800		
Company ID	0.594	0.297	0.333	0.231	0.691	
Engagement	0.101	0.677	0.533	0.429	0.162	0.613

Nonetheless, considering the potential concerns about discriminant validity, it is reasonable to examine whether some indicators should be excluded from the model because they load on two (or more) constructs (Raykov and Marcoulides 2011). An exploratory factor analysis using the 3 constructs under consideration, brand attachment, AWS performance, and engagement behaviors, can demonstrate the factor loadings of each indicator. The geomin

rotation was used for the EFA. Since it is an oblique rotation, the output includes the correlation between the factors. Although varimax is a popular, commonly used rotation for factor analysis, it does not allow for correlated factors (Schmitt and Sass 2011), which is inappropriate for the current data set. As shown in the scree plot, figure 13 below, as expected the three constructs load onto three factors, with three eigenvalues over 1 (14.746, 2.162, 1.013):

Figure 13: Scree Plot CFA (1)



By considering the factor loading below, one can note that each indicator loads relatively well on its construct if one does not consider cross loading. Please see Table 9 below.

Table 9: Factor Structure for 3 Factor EFA

Indicators	Factor 1	Factor 2	Factor 3
AWSPERF1	0.805	0.539	0.605
AWSPERF2	0.892	0.559	0.657
AWSPERF3	0.883	0.557	0.628
AWSPERF4	0.873	0.577	0.662
AWSPERF5	0.843	0.582	0.665
AWSPERF6	0.892	0.522	0.61
AWSPERF7	0.852	0.532	0.625
ATTACH1	0.779	0.567	0.686
ATTACH2	0.632	0.648	0.893
ATTACH3	0.75	0.546	0.673
ATTACH4	0.702	0.524	0.696
ATTACH5	0.717	0.66	0.825
ATTACH6	0.632	0.663	0.887
ATTACH7	0.649	0.685	0.891
ENGAGE_1	0.378	0.692	0.53
ENGAGE_2	0.62	0.715	0.594
ENGAGE_3	0.601	0.846	0.67
ENGAGE_4	0.606	0.845	0.664
ENGAGE_5	0.536	0.832	0.636
ENGAGE_6	0.648	0.794	0.652
ENGAGE_7	0.626	0.76	0.613
ENGAGE_8	0.582	0.77	0.605
ENGAGE_9	0.458	0.788	0.615
ENGAG_10	0.479	0.735	0.586
ENGAG_11	0.568	0.75	0.585

However, reviewing the geomin factor loadings for 3 factors reveals that some indicators from both brand attachment and engagement also load on the factor for AWS performance. This

table (Table 10 below) demonstrates that the attachment indicators 1, 3, 4, 5 load on AWS performance as do the engagement behavior indicators 2, 6, 7, 8, 11. With the exception of attachment indicator 5, the factor loadings from the previous table are actually higher on the AWS performance factor than on the brand attachment factor. It is reasonable to remove indicators that load on both constructs (Raykov and Marcoulides 2011). I thus propose to remove attachment indicators 1, 3, 4 from the measurement model.[10]

Table 10: Geomin Rotated Factor Loadings for 3 Factor ELA for Constructs: AWS Performance, Brand Attachment, and Engagement Behaviors

* For factors loadings significant at .05 level

Indicators	Factor 1	Factor 2	Factor 3
AWSPERF1	0.746*	0.047	0.041
AWSPERF2	0.862*	-0.016	0.056
AWSPERF3	0.877*	0.024	-0.013
AWSPERF4	0.808*	0.028	0.068
AWSPERF5	0.738*	0.047	0.107
AWSPERF6	0.931*	-0.035	-0.026
AWSPERF7	0.826*	-0.016	0.051
ATTACH1	0.587*	0.013	0.260*
ATTACH2	0	-0.023	0.910*
ATTACH3	0.549*	-0.005	0.286*
ATTACH4	0.431*	-0.065	0.430*
ATTACH5	0.254*	0.06	0.601*
ATTACH6	0.001	0.02	0.872*
ATTACH7	0.023	0.058	0.832*
ENGAGE_1	-0.128	0.687*	0.114
ENGAGE_2	0.294*	0.544*	-0.016
ENGAGE_3	0.111	0.747*	0.041
ENGAGE_4	0.127	0.752*	0.019
ENGAGE_5	0.018	0.790*	0.041
ENGAGE_6	0.251*	0.634*	0.007
ENGAGE_7	0.265*	0.620*	-0.032
ENGAGE_8	0.179*	0.672*	-0.017
ENGAGE_9	-0.1	0.754*	0.131
ENGAG_10	0	0.664*	0.097
ENGAG_11	0.182*	0.658*	-0.029

[10] From the Brand Attachment Scale (Malar 2011): My feelings toward the brand can be characterized by (1) trust, (3) partnership, (4) connection.

The updated CFA, using Mplus, plotted items to their latent constructs and then analyzed for convergence and fit per the first CFA (please see Appendix D for relevant outputs for the second CFA). The unstandardized factor loadings are again significant; thus, one can reject the null hypothesis that the loading is zero. The standardized factor loadings indicate item reliability, ideally reaching at least 0.7. All factor loadings exceed this level, again except for the first item for engagement behaviors, whose standardized factor loading on the engagement behavior construct is 0.668, again still relatively high. Given, however, some of the other problems with the engagement behavior construct and the lower R-square for this indicator in the first CFA, I propose removing this item from the construct to improve item reliability and re-running the CFA a third time. The first indicator for the engagement behavior construct was "I would consider leaving my job if I could no longer use AWS." This item has some conceptual differences compared to the other engagement items, adding supplementary weight to the decision to remove it.

The third CFA also demonstrates significant unstandardized factor loadings (again please see Appendix D for relevant outputs for the third CFA). The standardized factor loadings on the third CFA are all above 0.7, demonstrating item reliability.

Mplus' R-Square output showing the total amount of variance the indicator has in common with its construct are all higher than for all of the indicators. In terms of the factor rho coefficient for composite reliability, as with the first CFA, all of the constructs indicated good composite reliability from the measurement model, being above 0.7. Please see Table 11 below for the composite reliability of each latent construct based on the model indicators.

Table 11: Composite Reliability CFA (3)

Construct	Composite Reliability/Factor rho coefficient
Meaningfulness of Work	0.942
AWS Performance	0.955
Brand Attachment	0.930
Engagement Behaviors	0.944
Decision-making Power	0.941
Company Identification	0.918

Convergent validity is also demonstrated for all the constructs because the AVE is greater than 0.5 (Fornell and Larcker 1981), see Table 12 below.

Table 12: Average Variance Extracted (AVE) CFA (3)

Construct	AVE for Factor
Meaningfulness of Work	0.731
AWS Performance	0.751
Brand Attachment	0.768
Engagement Behaviors	0.630
Decision-making Power	0.800
Company Identification	0.691

Considering the Fornell-Larcker criterion for the third CFA, the discriminant validity of the constructs is greatly improved (Fornell and Larcker 1981). Please see Table 13 below. Engagement behavior is the only construct whose AVE is slightly lower than its squared correlation with another construct – brand attachment. Engagement behavior's AVE is 0.630 and its squared correlation with brand attachment is 0.651. As discussed earlier, brand attachment is

hypothesized to be an antecedent to engagement behaviors, and a review of the indicators for the constructs indicate a clear delineation between the conceptualization of each construct.

Table 13: Squared Correlation Between Constructs for Third CFA

AVE on diagonal in yellow						
	Meaningfulness of Work	Brand Attachment	AWS Performance	Decision-making Power	Company ID	Engagement behaviors
Meaningfulness of work	0.731					
Brand Attachment	0.195	0.751				
AWS Performance	0.242	0.587	0.768			
Decision-making power	0.154	0.365	0.448	0.800		
Company ID	0.594	0.239	0.333	0.230	0.691	
Engagement	0.110	0.651	0.542	0.437	0.175	0.630

When evaluating a measurement model, one considers several model fit indices to determine if the proposed model actually fits the data. Chi-square is a "badness of fit" statistic (the larger the value, the worse the fit), and thus if one fails to reject the null hypothesis, it means that there is discrepancy between the model and the data covariances matrices. Here the Chi-square is 1570.291, with 579 degrees of freedom, p = .000, and thus I REJECT the null hypothesis of close fit between the model. This is the first indication that the model may require additional modifications.

RMSEA is a parsimony-adjusted index, which means it favors simpler models. It approximates a non-central chi-square distribution and takes sample size into account. It is a badness of fit index because lower values are better. The rule of thumb is that RMSEA less than

.05 indicates close approximate fit and values between .05 and .08 suggest a reasonable error of approximation. Here RMSEA is estimated to be 0.065, suggesting a reasonable error of approximation. However, the probability that RMSEA is less than .05 is statistically significant at p = 0.000, which means that I must reject the hypothesis that the RMSEA is less than 0.05. The lower bound is 0.061, which is above 0.05, also suggesting that there may be a poor fit between the model and the data. The upper bound is 0.069, which is less than 0.1, which normally would suggest that there is not a poor fit with the data. However, overall interpretation of RMSEA suggests a poor fit with the data.

The comparative fit index (CFI) compares the relative improvement of fit from a baseline model (assumes zero population covariances among the observed variables) to the current model. The rule of thumb for CFI is that values greater than .9 may indicate reasonably good fit of the model. Here, CFI is .930, which is greater than .9 and thus indicates good model fit. However, some argue that having a baseline model with zero covariances is not very realistic and sets the bar relatively low. Thus, CFI must be considered in conjunction with other model fit indices.

SRMR measures the mean absolute correlation residual – that is the difference between observed and predicted correlation. One wants the SRMR to be smaller, and a rule of thumb is that values of SRMR less than .10 are considered favorable. Here, SRMR is .040, which is less than .10. This indicates that overall the model fits reasonably well. However, the other indices are more concerning.

Given some of the concerns with the model fit indices, the next step is to consider the model modification indices provided by Mplus. For a measurement model, it is reasonable to covary error terms for indicators for the same construct. In addition, regressing an indicator on a construct other than its own is also permissible. As a first step, I covary the indicators 3 and 4 for engagement, and indicator 9 and 10 for engagement, because they both have model modification

indices above 100 in Mplus. I then covary the indicators 4 and 5 for engagement because the model modification index was 58 in Mplus.

The above introduction of allowing the error terms for indicators 3 and 4 from engagement to covary and allowing the error terms for indicators 9 and 10 for engagement to covary improved the model fit indices. As before, both the CFI (at 0.952, greater than 0.9 as desired) and the SRMR is (at 0.037, less than 0.1 as desired) suggest a reasonable model fit. In addition, the RMSEA now also suggests a reasonable model fit. It is 0.054, indicating a close approximate fit between the model and the data. The lower bound of 0.5 indicates a close approximate fit between the model and the data. The upper bound of 0.058 is lower than 0.10, indicating that the model is not a poor fit to the data. Also, the probability that RMSEA is less than .05 is not statistically significant at $p = 0.058$, which means that I do not reject the hypothesis that the RMSEA is less than 0.05. Overall RMSEA is reassuring.

However, the Chi-square test of model fit continues discouraging. After the modifications, the Chi-square is 1254.925, with 579 degrees of freedom, $p = .000$, and thus I must still reject the null hypothesis of close fit between the proposed model and the data. However, the Chi-square statistic is sensitive to sample size, and some researchers have suggested that one should no longer base model rejection on this statistic (Gallagher et al 2008, Schlermelleh-Engel et al. 2003, Vandenberg 2006). An alternative indication of reasonable fit is computing the ratio of Chi-square and the degrees of freedom; if the ratio is 2 or 3 to one, it indicates good or acceptable fit (Wheaton et al. 1977, Joreskog and Sorbom 1993, Schlermelleh-Engel et al. 2003). In the final CFA model, Chi-square over degrees of freedom, 1254.925/579, equates to a ratio of 2.18 to 1, thus indicating a reasonable fit between the proposed model and the data.

Sequential Regression for Antecedents of Brand Attachment

In this section, I use the results from the previous measurement model section to test the model hypotheses using IBM SPSS Statistics version 23 for the sequential regression analyses.

Manipulation Checks

For the manipulation checks, respondents were asked, "Thinking of the feedback you provided to AWS, please indicate the degree to which you agree with the following statements," using a 7-point Likert scale.

- AWS will use my feedback to improve future and/or existing products
- AWS will use my feedback to help other users be more productive

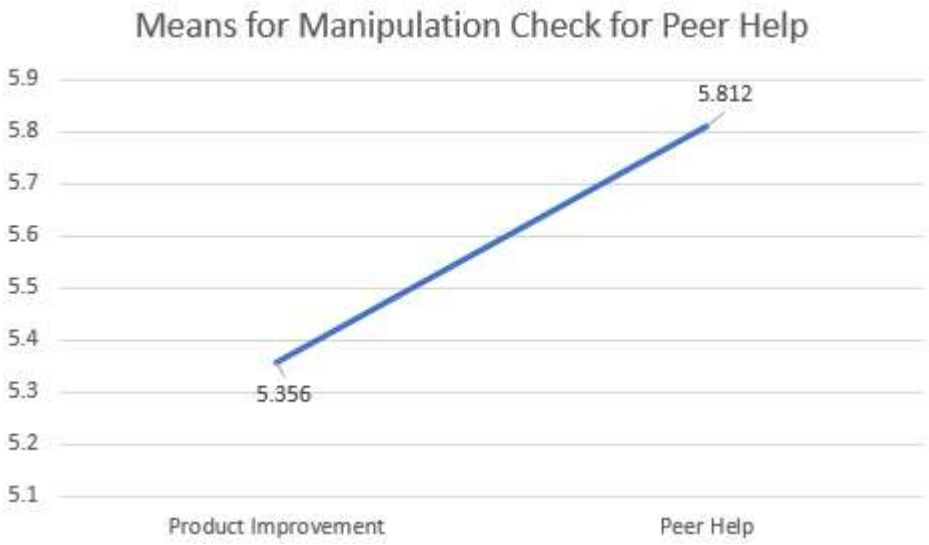
The goal of the manipulation check was to determine if the conditions worked as designed. Manipulations were not evaluated in a separate study prior to the AWS study due to the difficulty of finding another appropriate sample to test the manipulations. B2B marketing research poses unique challenges for research, particularly in terms of access to data and recreating realistic experimental conditions (Lilien et al 2010). Furthermore, established and more recent research has called into question the value of manipulation checks, especially for targeted survey experiments (Sigall and Mills 1998, Hauser et al 2018). Sigall and Mills explain succinctly, one "issue is whether such measures [manipulation checks] are necessary in experiments. If no plausible alternative explanation exists, data from such measures are not needed" (p. 218).

A one-way ANOVA was run for the first manipulation check regarding using the respondent's feedback to improve future and/or existing products, using a Type III sum of squares approach. The ANOVA was not statistically significant, with $F(3, 400) = 1.331$, $p = 0.264$. Post-hoc analyses did not reveal differences between the groups. Given that the main focus of this research is the difference between asking end users for feedback for product improvement

versus requesting feedback to help other end users, a one-way ANOVA was also conducted to compare the results on the manipulation check for the two main experimental conditions. The ANOVA for the two key conditions also did not find a statistically significant difference between the two groups, with F (1, 197) = 1.796, p = 0.182. Considering the manipulation check and the different conditions, it is also plausible that respondents could believe that AWS would be able to use all of the feedback to improve products: product suggestions, peer support, actual AWS use, and job challenges.

A one-way ANOVA was also run for the second manipulation check, which asked respondents if AWS would use their feedback to help other end users be more productive. The ANOVA was not statistically significant, with F (3, 400) = 3.736, p = 0.230. The post hoc analyses of differences between groups using Tukey HSD and Dunnett T3 also did not find any significant difference between the group. However, the post hoc analysis using the Least Significant Difference Test (LSD), found a significant difference between the feedback for product improvement condition versus requesting feedback to help others condition, with a mean difference between the two groups of 0.456 (standard error of 0.230), p = 0.048. The LSD is the most liberal of the post hoc tests, essentially exploring pair-wise comparison's using the equivalent of multiple t tests. It is thus the most likely to find spurious differences. Nonetheless, for current research, the two groups of interest are the feedback for product improvement condition versus requesting feedback to help others. A separate ANOVA was then run for these two conditions, and it was marginally significant, with F (1, 097) = 3.644, p = 0.58. Please see the below graph for an illustration (Figure 14).

Figure 14:



In summary, the manipulation checks illustrate the challenges and nuances in B2B research. Respondents potentially believed that AWS could possibly use any type of requested feedback to improve products, illustrating the importance of interactive marketing activities for B2B companies (Sawhney et al. 2005, Nambisan and Baron 2007 and 2010). However, some results imply that they were able to distinguish between a request from the supplier firm (AWS) to improve its products and a request for advice to help other end users.

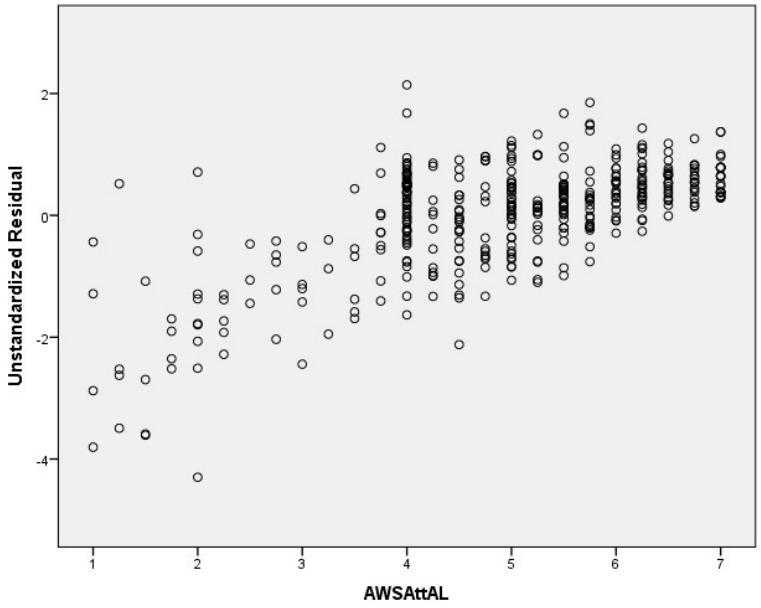
Data Assumptions for Multiple Regression

Given that the model includes categorical data – the experimental condition – and interactions between continuous data and categorical data, a sequential regression model is an appropriate analytical approach (Keith 2015). Before considering the results from sequential regression, it is important to consider if the data meet the assumptions necessary for multiple regression: homoscedasticity, normality, and acceptable multicollinearity.

To consider if the homogeneity assumption holds, one can examine the plot of the unstandardized residuals against the predicted values. Please see the scatterplot below (Figure

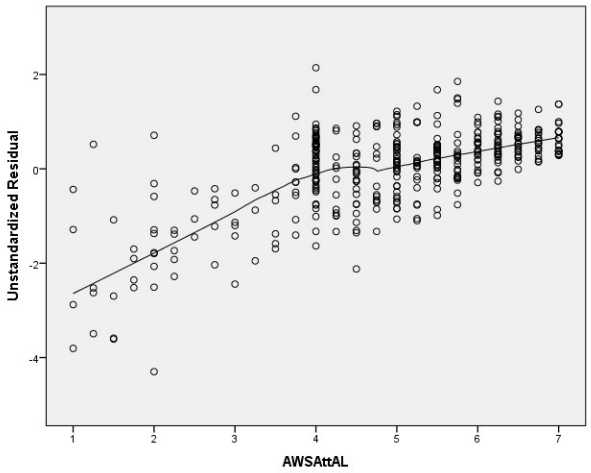
15). The residuals are fairly evenly distributed across the range of predicted values, with more of clustering towards the higher end of the range, as is common with Likert scales (Greer et al. 2006). Overall the scatterplot is reassuring, suggesting homoscedasticity.

Figure 15: Scatterplot for Homoscedasticity



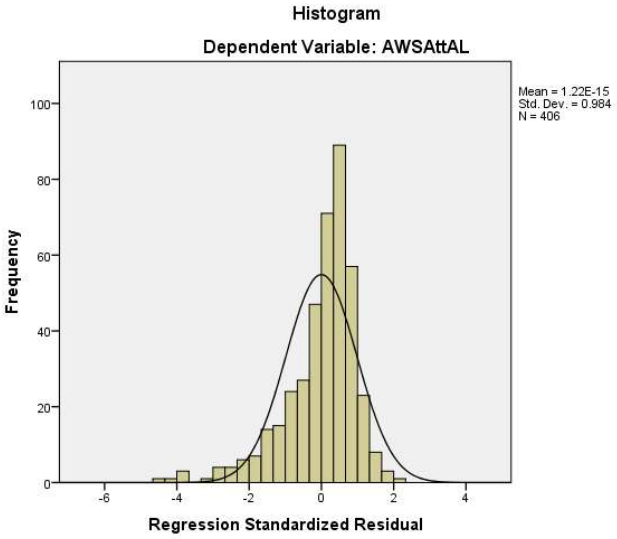
One can explore the question of homoscedasticity in more depth by regressing the independent variables on the absolute value of the unstandardized residuals, as suggested by Glejser (1969). The Glejser analysis found no significant coefficients for the main effects and interactions, suggesting that heteroscedasticity is not in fact a problem. Finally, the Loess line for the scatterplot signifies homoscedasticity, below (Figure 16).

Figure 16: Loess Line for Homoscedasticity



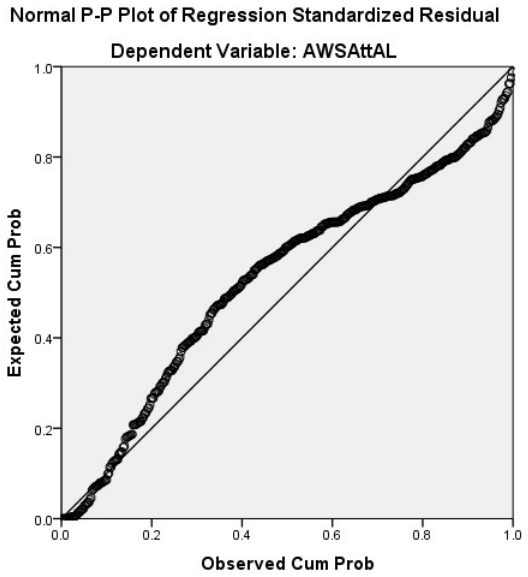
Considering normality, the histogram of the residuals (below Figure 17) is fairly reassuring for the assumption of normality. One would like to see a relatively symmetrical bell-shaped distribution, and in this model, the histogram reasonably approaches a bell-shape.

Figure 17: Histogram for Normality



However, the normal P-P Plot of the standardized residuals is not reassuring for normality (Figure 18 below).

Figure 18: Normal P-P Plot for Normality



The Shapiro-Wilk is not reassuring, because with the statistic at 0.898 (df = 406), p = 0.000. This indicates that the sample distribution of residuals is statistically different from what would be expected from a normal distribution. The absolute value of the skewness, at -1.434, is within the desired range of 2; however, the kurtosis, at 3.040, was outside of the range. were within the desired range of less than 2. Overall, there is conflicting evidence about the normality of the data for current research. However, linear regression is relatively robust to violations of normality (Williams et al. 2013, Woolridge 2009). For example, Williams et al. (2013) expound:

> …the assumption of normally distributed errors is not required for multiple regression to provide regression coefficients that are unbiased and consistent, presuming that other assumptions are met. Further, as the sample size grows larger, inferences about coefficients will usually become more and more trustworthy, even when the distribution of errors is not normal. This is due to the central limit theorem which implies that, even if errors are not normally distributed, the sampling distribution of the coefficients will approach a normal distribution as sample size grows larger, assuming some reasonably minimal

preconditions. This is why it is plausible to say that regression is relatively robust to the assumption of normally distributed errors (p. 3).

In terms of multicollinearity, for the Tolerance, one is looking for a value greater than .10 and since VIF is the reciprocal, one is looking for a value of less than 10. The below Table 14 shows that all of the variables and interactions fall within these ranges.

Table 14: Multicollinearity for Sequential Regression

	Collinearity Statistics	
	Tolerance	VIF
AWS Performance	0.255	3.923
Meaningfulness of Work	0.242	4.139
AWS Performance	0.255	3.923
Decision-making Power	0.564	1.774
Company Identification	0.558	1.793
Dummy Variable: Feedback for Improvement of Product (D1)	0.673	1.486
Dummy Variable: Feedback for Peer Help (D2)	0.662	1.511
Dummy Variable: Feedback on AWS Use on the Job (D3)	0.674	1.485
Interaction of Meaningfulness of Work and D1	0.431	2.319
Interaction of Meaningfulness of Work and D2	0.577	1.733
Interaction of Meaningfulness of Work and D3	0.365	2.737
Interaction of AWS Performance and D1	0.407	2.454
Interaction of AWS Performance and D2	0.553	1.807
Interaction of AWS Performance and D3	0.422	2.37

In summary, the assumptions for homoscedasticity and multicollinearity appear to hold for the current data. Whether the normality assumption holds is more ambiguous, but linear regression using ordinary least squares, such as the analysis performed in SPSS for current

research is robust to violations of normality. As summarized in Keith (2015) "The violation of [normality] assumption is only serious with small samples" (p. 188).

Sequential Regression with Brand Attachment as Dependent Variable

A sequential regression was performed, where the main effects of meaningfulness of work and AWS performance were entered first and regressed on brand attachment. Also included in the first step was the control variables of decision-making power and end user-company (employer)-identification. The first iteration for the sequential regression model included the categorical control variables from the below questions as described earlier:

- Which of the following best describes your current involvement with cloud services?
- Which of the following cloud services platforms have you, yourself, used in the past year?
- Which of the following types of cloud service offerings have you, yourself, used in the past year?

These variables were coded as dummy variables to account for the individual's daily interaction with cloud services as well as experience with AWS. However, these variables were not statistically significant in initial regression models and thus were excluded from the analysis.

The second step in the sequential regression model was the introduction of dummy variables for the experimental conditions. Step 3 in the sequential regression model was the inclusion of the interaction effect of meaningfulness of work and the experimental conditions. The final step, step 4, was the inclusion of the interaction effect of AWS performance and the experimental conditions.

The Table 15 below provides the change in R squared for each step. Considering the regression for brand attachment on meaningfulness of work, AWS performance, decision-making

power end user-company (employer)-identification. This initial regression was statistically significant, with R Square = .5558, F (4, 401) = 126.643, p < .000. However, the change in R square with the addition of the experimental conditions and the interactions were not significant. Please see the below table.

Table 15: Change in R Squared for Sequential Regression

Model	R Square	R Square Change	F Change	df1	df2	Sign change
Main Effects	.558	.558	126.643	4	401	.000
Experimental Conditions	.562	.003	1.055	3	398	.368
Conditions X Meaningfulness of Work	.567	.006	1.776	3	395	.151
Conditions X AWS Performance	.568	.001	.278	3	392	.841

Table 16, below, summarized the coefficients for each step in the regression model. In the final model with all variables, both main effects, meaningfulness of work and AWS performance demonstrated a positive and significant relationship with end user supplier firm brand attachment. AWS Performance had the highest standardized Beta, with Beta = 0.61, t = 9.282, p = .000, supporting H1. The meaningfulness of work for the end user had a Beta of 0.16, t = 2.374, p = .018, providing support for H2. The control for the end user's perceived decision-making power on the job also showed a positive and significant relationship with the end user supplier firm brand attachment, with a Beta of 3.971, t = 3.971, p = 0.00. As explained earlier, it was expected that if an individual felt like he or she had more control over the choice of cloud service provider, she/he would feel more of a sense of connection to the supplier firm brand.

In addition, the control for end user identification with their employer (company identification), approached statistical significance, having a Beta of -0.079, t = -1.786 (p = 0.075). Although only marginally significant, the directionality of the relationship between the end user's identification with his or her employer was negative as expected. As evidenced in the qualitative interviews, if an end user strongly identifies with her or his employer, s/he may be less inclined to become strongly attached to brands encountered on the job. Given that this effect functioned as a control and was only marginally significant, it would be imprudent to overstate its importance, but it does imply an interesting glimpse of how different brands on the job may relate to one another: the end user's employer's brand may compete to a degree with supplier firm brands.

Although the relationship between the conditions and brand attachment were not hypothesized (unlike their interactions), they were entered per custom as the second step in the sequential model. The relationship between the condition of requesting feedback from end users to help other end users was marginally significant, with Beta = -0.07, t = -1.748, p = 0.081. Given that the result was not hypothesized and was only marginally significant, it is not judicious to provide an interpretation. The other dummy variables did not have a significant relationship with brand attachment.

In the third step of the sequential regression, the interaction terms between the experimental condition and the meaningfulness of work were entered. The interaction between meaningfulness of work and the experimental condition of request for feedback to improve the product approached significance, with Beta = -0.082, t = -1.874, p = .062. Although not statistically significant at 0.05, the directionality of the Beta suggested that hypotheses H3 and H5 should be rejected. In other words, the more meaningfulness an end user finds at work, the more negative his/her reaction to the supplier firm's request for product feedback (H3 is not supported). In other words, the less meaningfulness an end user finds at work, the more positive his/her reaction to the supplier firm's request for product feedback (H5 is not supported). No other

interactions were statistically significant or approached statistical significance, and thus H4, H6, H7, H8, H9, H10 were not supported. Potential explanations for the insignificant findings are provided in the discussion section.

Table 16: Sequential Regression Results for Brand Attachment as Dependent Variable

	Standardized Coefficient	t (p)	Δ in R squared	p for Δ R squared
Model 1			.558	.000
AWS Performance	0.595	12.965 (.000)		
Meaningfulness of Work	0.121	2.710 (.007)		
Decision-making Power	0.174	3.995 (.000)		
Company Identification	-0.078	-1.777 (.076)		
Model 2			.003	.368
AWS Performance	0.598	13.015 (.000)		
Meaningfulness of Work	0.125	2.974 (.005)		
Decision-making Power	0.172	3.944 (.000)		
Company Identification	-0.077	-1.751 (.081)		
Dummy Variable: Feedback for Improvement of Product (D1)	-0.041	-1.022 (.307)		
Dummy Variable: Feedback for Peer Help (D2)	-0.07	-1.748 (.081)		
Dummy Variable: Feedback on AWS Use on the Job (D3)	-0.045	-1.116 (.265)		
Model 3			.006	.151
AWS Performance	0.604	13.139 (0.00)		
Meaningfulness of Work	0.162	2.524 (0.012)		
Decision-making Power	0.173	3.978 (0.00)		
Company Identification	-0.078	-1.764 (0.078)		
Dummy Variable: Feedback for Improvement of Product (D1)	-0.045	-1.128 (0.26)		
Dummy Variable: Feedback for Peer Help (D2)	-0.07	-1.725 (0.085)		
Dummy Variable: Feedback on AWS Use on the Job (D3)	-0.046	-1.153 (0.25)		
Meaningfulness of Work X D1	-0.082	-1.874 (0.062)		
Meaningfulness of Work X D2	-0.024	-0.6 (0.549)		
Meaningfulness of Work X D3	0.012	0.253 (0.801)		

Table 16: Sequential Regression Results for Brand Attachment as Dependent Variable

	Standardized Coefficient	t (p)	Δ in R squared	p for Δ R squared
Model 4			.001	.841
AWS Performance	0.61	9.282 (0.00)	0	
Meaningfulness of Work	0.16	2.374 (0.018)	0.018	
Decision-making Power	0.176	3.971 (0.00)	0	
Company Identification	-0.079	-1.786 (0.075)	0.075	
Dummy Variable: Feedback for Improvement of Product (D1)	-0.048	-1.176 (0.24)	0.24	
Dummy Variable: Feedback for Peer Help (D2)	-0.07	-1.722 (0.086)	0.086	
Dummy Variable: Feedback on AWS Use on the Job (D3)	-0.048	-1.185 (0.237)	0.237	
Meaningfulness of Work X D1	-0.065	-1.281 (0.201)	0.201	
Meaningfulness of Work X D2	-0.024	-0.547 (0.584)	0.584	
Meaningfulness of Work X D3	0.002	0.036 (0.971)	0.971	
AWS Performance X D1	-0.033	-0.636 (0.525)	0.525	
AWS Performance X D2	-0.002	-0.034 (0.973)	0.973	
AWS Performance X D3	0.018	0.351 (0.725)	0.725	

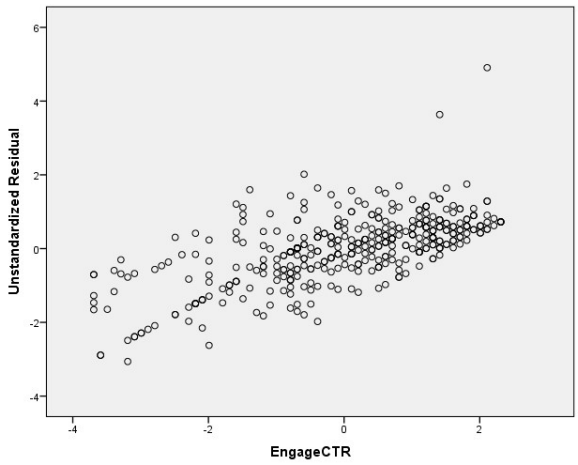
Simple Regression for Brand Attachment on Engagement Behaviors

To test H11, that brand attachment has a positive and significant effect on engagement behaviors, a simple linear regression was performed. As projected by H11, the results suggest that a significant portion of the variation in end user engagement behavior is predicted by end user brand engagement, with F (1, 403) = 467.506, p = 000. R square of .575 suggests that 57.5% of the variance of engagement behaviors can be explained by end user brand attachment. This is a very high portion of variance, which is undoubtedly magnified by the experimental nature of this

study. Nonetheless, it does indicate a direct relationship between brand attachment to a work brand with actual end users and intended engagement behaviors.

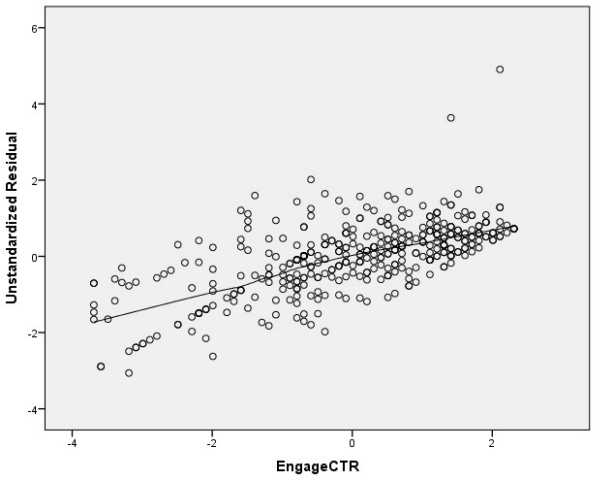
The assumptions for multiple regression were also considered for this regression. For heteroscedasticity the plot of the unstandardized residuals against the predicted values (below) is reassuring. Please see the scatterplot below (Figure 19). It is encouraging, suggesting homoscedasticity.

Figure 19: Scatterplot for Simple Regression



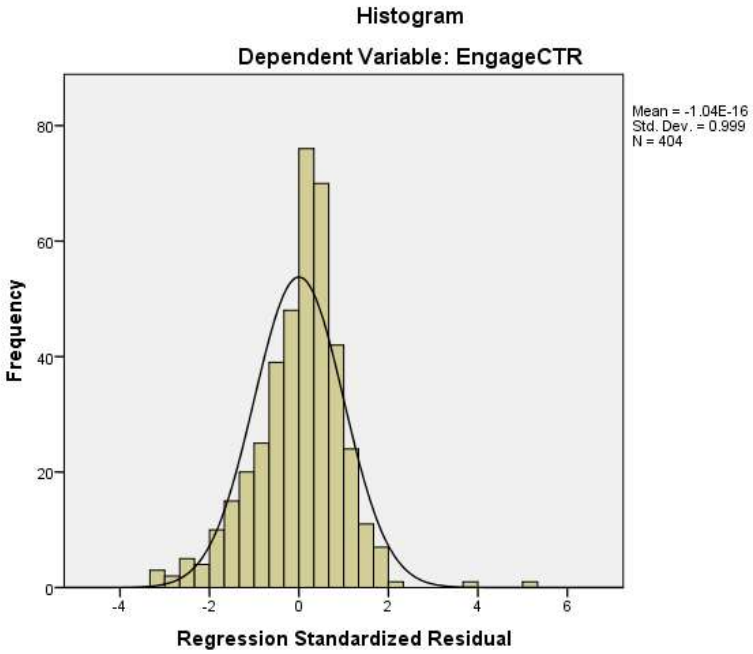
In addition, adding the Loess line to the scatterplot provides a reassuring, relatively straight line, implying homoscedasticity (Figure 20).

Figure 20: Loess Line for Simple Regression



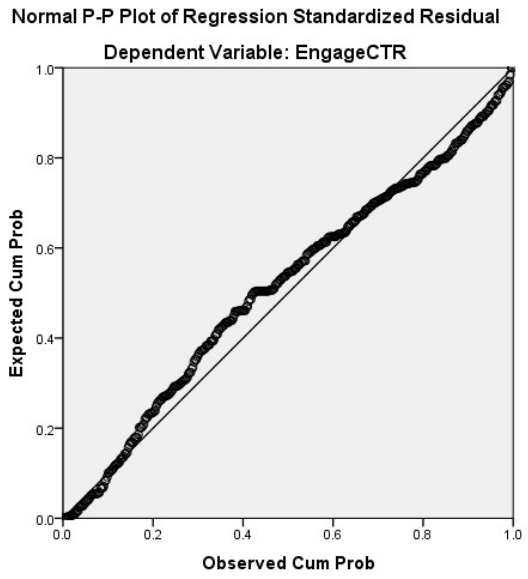
Considering normality, the histogram of the residuals (Figure 21 below) demonstrates normality with a bell-shape.

Figure 21: Histogram for Simple Regression



The normal P-P Plot of the standardized residuals also suggests normality (Figure 22).

Figure 22: Normal P-P Plot for Simple Regression



Although the Shapiro-Wilk is not reassuring, with the statistic at 0.958 (df = 404), p = 0.000, implying that the sample distribution of residuals is statistically different from an expected normal distribution, skewness suggest normality within acceptable bounds. The absolute value of the skewness, at -0.160, is within the desired range of 2; however, the kurtosis, at 2.561, was outside of the range. However, as previously explained, regression is relatively robust to violations of normality.

Please see Appendix E for a table of the full means for each dependent variable per condition, descriptive statistics as well as a correlation table for all variables.

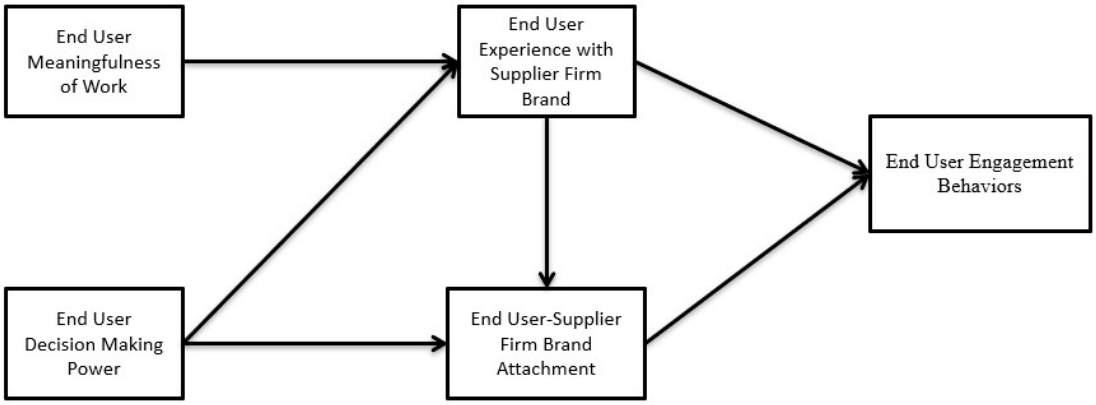
Post Hoc Analysis: Structural Equation Model

Given that the experimental conditions had marginal impacts on the dependent variables, it is reasonable to consider a full structural equation model of the latent variables, without accounting for effects from the experimental conditions. One key strength of structural equation

models is that they are able to evaluate potential causal relationships (Kline 2015). The purpose of this post-hoc analysis is investigative, that is, to examined non-hypothesized relationships in addition to hypothesized ones (Joreskog and Sorbom 1993). Clearly this introduces the possibility of bias, or as Weston and Gore (2006) summarize, "problems with model modification include capitalization on chance and results that are specific to a sample because they are data driven" (p. 745). Another term for this approach is a model generation strategy and is thus data-driven but with the aim to suggest modifications that are "substantively meaningful" (MacCallum and Austin 2000, p. 217). Please see Appendix F for all relevant outputs from Mplus for this analysis.

As a first step, the full SEM for the latent analysis was run in Mplus, based on the hypothesized relationships in the sequential regression model. Since this phase is investigative, all latent variable relationships that were not statistically significant at $p = 0.05$ were dropped form the model. Given its marginal significance in the regression model, it is not surprising that the latent variable of company identification was dropped from the model altogether. What is more surprising, however, is that the direct relationship between meaningfulness of work and brand attachment was not statistically significant in the full structural equation model. Please see below for a simplified version of the relationship between the variables as suggested in the post hoc analysis, Figure 10, or please see Appendix F for full printout of the model from Mplus.

Post Hoc SEM Model
Data Driven Relationships between Variables



The model fit indices for the data driven model are overall reassuring. The RMSEA is 0.046, suggesting a close approximate fit between the model and the data. The lower bound of 0.041 is less than 0.05, again indicating a close approximate fit between the model and the data. The upper bound of 0.051 is lower than 0.10, indicating that the model is not a poor fit to the data. The CFI is 0.971, also indicating a reasonably good fit of the model, and the SRMR is 0.040, much less than the value of 0.10, which typically indicates that the difference between observed and predicted correlation is within acceptable bounds.

On the other hand, the Chi-Square Test is statistically significant, with Chi-square at 772.925, 414 degrees of freedom, and p = 0.000, and thus I reject the null hypothesis that there is a close fit between the data and the model. However, as discussed earlier, there is some consensus that one should no longer base model rejection on this statistic (Gallagher et al 2008,

Schlermelleh-Engel et al. 2003, Vandenberg 2006). Comparing the ratio of Chi-square and the degrees of freedom in this case, one finds a ratio of 1.86, below the rule of thumb where if the ratio is 2 or 3 to one, it indicates good or acceptable fit (Wheaton et al. 1977, Joreskog and Sorbom 1993, Schlermelleh-Engel et al. 2003). This ratio is improved compared to the ratio in the CFA model, 2.18 to 1 as previously reported. In short, considering all of the indices together, there is a reasonable fit between the post hoc model and the data.

For the purposes of this post hoc analysis, only statistically significant direct paths were retained. Considering the standardized coefficients provides insight into which variables have relatively more influence in the model. Please see Table 17 below. For example, for 1 standard deviation of change in meaningfulness of work, one sees 0.271 change in standard deviation of AWS Performance. Likewise, for 1 standard deviation of change in the end user's perception of decision-making power, one sees 0.565 change in standard deviation of AWS Performance. In other words, the end user's perception of decision-making power has approximately twice the effect on the end user's evaluation of AWS Performance (positive relationship) compared to the meaningfulness of work. Likewise, one can note that while both AWS performance and brand attachment have a significant and positive relationship with end user engagement behaviors, brand attachment's coefficient of 0.569 is nearly twice as much as AWS performance's coefficient of 0.324.

Table 17: Standardized Coefficients for Latent Variables, Post Hoc SEM

	Estimated Coefficient	Standard Error	Est. Coeff/S.E.	P Value
AWS Performance on Meaning of Work	0.271	0.041	6.597	0.000
AWS Performance on Decision-making power	0.565	0.036	15.535	0.000
Brand Attachment on AWS Performance	0.643	0.044	14.465	0.000
Brand Attachment on Decision-making Power	0.187	0.050	3.773	0.000
Engagement on AWS Performance	0.324	0.055	5.875	0.000
Engagement on Brand Attachment	0.569	0.053	10.636	0.000

One of the most intriguing inferences from this post hoc analysis is the mediating role that AWS performance plays in the relationship between meaningfulness of work and brand attachment for end users (in this study). Considering the indirect effects in the model, AWS performance fully mediates the relationship between meaningfulness of work and brand attachment. In other words, there are only indirect effects between meaningfulness of work and brand attachment – 1 standard deviation change in meaningfulness of work results in 0.236 change of standard deviation in brand attachment, controlling for all other variables, with AWS performance as the mediator (please see Appendix F for relevant Mplus outputs). These results reinforce the idea that this type of feeling is likely reserved for highly important brands, which are key to functional job completion and demonstrate high instrumental value.

Considering AWS performance as the mediator between meaningfulness of work and brand attachment suggests that brand attachment is developed through one's evaluation of the brand on the job and that this evaluation is positively related to the meaningfulness of one's work. A potential theoretical explanation could be the elaboration likelihood model (ELM) of persuasion, which describes how two different pathways for processing stimuli explain how attitudes about a focal object may change (Cacioppo and Petty 1984). Essentially, an individual either uses a central route or a peripheral route to evaluate the relevant information or in this case the performance of the supplier firm brand on the job. It is possible that individuals who find more meaning at work would be more likely to rate supplier firm brands more highly because they are using the central route to evaluate the brand. End users who find more meaning at work are more likely to use all or most of the available functionality of a supplier firm brand, because they are more implicated in their work and possess more knowledge about their specialty (Ziefle 2002).

Petty and Cacioppo (1986) highlight two aspects of ELM which are particularly relevant for end users and the meaningfulness of their work. Firstly, the more involved the person is in the issue at hand, the more likely they are to use the central path (p. 144). Secondly, prior knowledge or experience will impact the way an individual evaluates information:

> One of the most important variables affecting information processing activity is the extent to which a person has an organized structure of knowledge (schema) concerning an issue (Britton & Tesser, 1982; Higgins, Herman, & Zanna, 1981; Wyer & Srull, 1984). Although it is possible for prior knowledge to enable more objective information processing in some instances (Bobrow & Norman, 1975), since stored knowledge tends to be biased in favor of an initial opinion, more often than not this prior knowledge will enable biased scrutiny of externally provided communications (Craik, 1979; Taylor & Fiske, 1984). Specifically,

> schema-driven processing tends to be biased such that external information is processed in a manner that contributes to the perseverance of the guiding schema (e.g., Ross, Lepper, & Hubbard, 1975) (p. 165).

Thus, end users who are seeking (and finding) more meaning at work would be more likely to apply themselves on the job, be more involved, and possess more knowledge, thus improving their rating of a supplier firm with a premium product, such as AWS cloud services.

ELM as an explanation of the relationship between meaningfulness of work and end users' evaluation of supplier firm brands' performance on the job could be a productive line of inquire for future research. Naturally, since this approach was generated from post hoc analysis, it is important to stipulate that the above model is one "tenable" explanation for the data that deserves to be explored and potentially confirmed in future research (Mueller and Hancock 2008).

Discussion and Limitations

Discussion

Although the planned interactions were not statistically significant, the main effects of meaningfulness of work and work-brand performance on the job on brand attachment were significant and positive. The positive relationship between the meaningfulness of the end user's work and his or her brand attachment to the supplier firm (AWS) supports the predictions extrapolated from existing organizational behavior theory and logotherapy in particular.

The significant and positive relationship between the supplier firm's performance on the job and brand attachment represents an advance in brand attachment literature by demonstrating the role of instrumental value in the development of brand attachment on the job.

In addition, the significant and positive relationship between supplier firm brand attachment and end user engagement behaviors advances literature because there is little research on engagement in the end user context. More importantly, the end user engagement behaviors as demonstrated in both the qualitative findings and the quantitative results illuminate the key role of influencers that end users play in B2B contexts. This is a significant contribution to current literature.

Please see Table 18 below for a summary of the results from the quantitative study.

Table 18: Summary of Results by Hypothesis

Hypothesis	Results from Survey Experiment
H1: The more positive the end user's job experience with the supplier firm's brand, the stronger the end user's brand attachment with the supplier firm's brand.	Supported
H2: The more meaningfulness an end user ascribes to her/his job, the stronger the end user's brand attachment with the supplier firm's brand.	Supported
H3: For end users who find more meaning for their lives at work (meaningfulness of work), supplier firm marketing activity request for product feedback will have a positive effect on the end user's brand attachment with the supplier firm's brand.	The results were marginally significant ($p = .062$), with Beta of -0.082. In other words, the more meaningfulness an end user finds at work, the more negative his/her reaction to the supplier firm's request for product feedback. H3 is not supported.
H4: For end users who find more meaning for their lives at work (meaningfulness of work), supplier firm marketing activity request for peer-to-peer support will have a positive effect on the end user's brand attachment with the supplier firm's brand.	Not significant

Table 18: Summary of Results by Hypothesis

Hypothesis	Results from Survey Experiment
H5: For end users who find less meaning for their lives at work (meaningfulness of work), supplier firm marketing activity request for product feedback will have a negative effect on the end user's brand attachment with the supplier firm's brand.	The results were marginally significant (p = .062), with Beta of -0.082. In other words, the less meaningfulness an end user finds at work, the more positive his/her reaction to the supplier firm's request for product feedback. H5 is not supported.
H6: For end users who find less meaning for their lives at work (meaningfulness of work), supplier firm marketing activity request for peer-to-peer support will have a positive effect on the end user's brand attachment with the supplier firm's brand.	Not significant
H7: The more positive an end user's job experience with a supplier firm's brand, the more likely the supplier firm's marketing activity, request for product feedback, will increase the end user's brand attachment.	Not significant
H8: The more positive an end user's job experience with a supplier firm's brand, the more likely the supplier firm's marketing activity, request for peer-to-peer support, will increase the end user's brand attachment.	Not significant
H9: The more negative an end user's job experience with a supplier firm's brand, the more likely the supplier firm's marketing activity, request for product feedback, will increase the end user's brand attachment.	Not significant
H10: The more negative an end user's job experience with a supplier firm's brand, the more likely the supplier firm's marketing activity, request for peer-to-peer support, will decrease the end user's brand attachment.	Not significant

Table 18: Summary of Results by Hypothesis

Hypothesis	Results from Survey Experiment
H11: The stronger the end user's brand attachment to the supplier firm brand, the more likely the end user is to demonstrate engagement marketing behaviors both on the job and off the job.	A simple regression showed that significant portion of the variation in end user engagement behavior is predicted by end user brand engagement, with F (1, 403) = 467.506, p = 000 and R square of 57.5%

The results from both the manipulation checks and the coefficients from the sequential regression model imply that there was little to no distinction on the part of respondents between the different experimental conditions, as would be obligatory for the hypothesized interactions. Since there was no group without a "marketing activity" – one that did not have any kind of feedback requested by AWS – it is not possible to say that the marketing activity did not have any impact on the dependent variable, brand attachment, but one can surmise that the different requests for feedback were perceived similarly. Attribution theory provides one plausible explanation for why this was the case (Heider 1958, Kelley 1967, Kelley 1973). Attribution theory essentially argues that people have a natural tendency to ascribe causality to behaviors and events and that they follow certain patterns when doing so depending on the actors and the context. As Kelley (1973) explains, when an actor has information from a series of interactions – such as from a brand that one uses regularly at work – the actor bases his or her understanding of motivations and drivers on past experiences. This is termed the covariance concepts, whereby "[a]n effect is attributed to the one of its possible causes with which, over time, it covaries" (p. 108).

Attribution theory has been used extensively to examine how consumers evaluate firms and firm activities (Palmatier et al. 2007, Becker-Oslen 2006, Skarmeas Leonidou 2013). Becker-

Olsen et al (2006) state simply: “consumers will attempt to understand firms’ motives embedded within marketing communications” (p. 47) following the precepts of attribution theory. In other words, attribution theory works in a similar way in individual-firm interactions as in individual-to-individual interactions. Or as Palmatier et al. (2007) explain, “behaviors are intentional and result from underlying, stable characteristics… new information is processed in light of previous inferences” (p. 214). Thus, given that most if not all respondents in the survey had some familiarity with AWS due to its industry dominance, they were likely to evaluate the marketing activity condition based on previous experience with AWS.

AWS is somewhat unique in the cloud services space because it is the first firm to celebrate end users and encourage feedback (although it is no longer the only firm with this strategy, it is still a key aspect of its brand persona). Indeed, user feedback has been pivotal to how AWS has developed its services and pursued market share. This is in contrast to, for example, Microsoft Azure or Oracle, which have more heavily relied on relationships with their legacy install base (Henderson, 2016). Case in point, there is a building on Amazon’s campus called “Lowflyinghawk,” named after a key end user. Amazon’s blog explains:

> In the early days of AWS, the most vocal AWS customer was an individual called 'low-flying-hawk' on AWS' user forums. The AWS team often sought low-flying-hawk’s thoughts on new features, pricing, and issues we were experiencing. Low-flying-hawk was like having a customer in our meetings, without actually being there.[11]

AWS thus has a strong history of seeking feedback from users to be able to improve its products and services.

[11] https://blog.aboutamazon.com/amazon-campus/the-surprising-stories-behind-the-peculiar-building-names-at-amazon, viewed on February 14, 2019.

Considering the covariation concept, AWS is the type of company that has a reputation for responding to end user feedback, and thus any interactive marketing activities from AWS could be inferred to have the ultimate goal of product improvement, even the vague experimental condition that asked for information about general job challenges facing respondents. This combined with the natural tendency to be self-centered (Burnkrant and Unnava 1989, Debevec and Romeo 1992) would explain why the respondents thought that AWS's goal was to improve products and ultimately help them. In short, attribution theory suggests that respondents may have assumed that AWS was going to use all types of feedback to improve their products due to AWS' historical business practices, thus confounding the expected mechanism of improving products (self-help) versus peer support (helping others) versus simply soliciting information from users (the two control conditions). Its history of engagement with users was considered a strength when it was chosen for current research; it may in fact have been a weakness.

It is interesting to note that a potential exception to the overall lack of difference between the experimental conditions was the feedback for peer support condition. Post hoc analysis using LSD found a significant difference in the manipulation check between that condition and the feedback for product improvement condition, $p = 0.048$, and the Beta coefficient for the peer support condition approached significant in the final regression model, with $p = 0.081$, see above for details. Providing advice to peers may fit less closely with Amazon's historical business practices and thus stood out more for respondents.

Limitations

Like many studies in a B2B environment, this study was somewhat limited in its ability to reproduce an actual work environment and truly realistic marketing activities. In addition, the panel data from Research Now/Survey Sampling may or may not have been representative of software engineers in the USA. Although demographics were reassuring, it is possible that the type of individual that decides to sign up to be on a panel differs in relevant ways from the overall

population of interest. In addition, the lengthy consent form as required by national and international standards for research on human populations possibly interfered with the perception on the part of the respondent that the survey was actually coming from the supplier firm brand, in this case, Amazon Web Services. This format is an important distinction from other research on the interaction between service and product firms and their users (Nambisan and Baron 2007, 2010). This research stream would benefit from additional data from diverse work contexts. The rich qualitative data provides a strong foundation that would likely be strengthened by additional qualitative studies and quantitative studies, especially with adequate access to end users thanks to a relationship with a relevant supplier firm.

CHAPTER V

CONCLUSION

"…Cela est bien dit, répondit Candide, mais il faut cultiver notre jardin."
"…All that is well said but we must work our fields."

- Candide, Voltaire

A key difference between B2B and B2C is naturally the second "B," business, that is, a work context. Current research falls squarely in the realm of B2B strategic marketing. Using findings from an initiative qualitative phase to build a quantitative model, this research aimed to address the following questions:

- Under what conditions do end users develop strong connections with supplier firm brands, such as brand attachment?
- How does meaningfulness of work for the individual relate to the development of supplier firm brand attachment?
- How does supplier firm brand performance on the job relate to end users' feelings of attachment to the supplier firm brand?
- How might marketing activities be used to best reach end users?
- What are end users' behavioral intentions based on their attachment to supplier firm brands?

This paper seeks to understand key antecedents to brand attachment in a work environment for end users. Many of the mechanisms are expected to be similar in a B2B environment as compared to a B2C environment. Indeed, Thomson et al. (2005) explain that brand experience overtime builds attachment. One can note a similar process in a B2B context. For example, Jeff, grading foreman, explained, "Most people are more attached to Caterpillar. Just because it's the biggest name brand. It's been around I guess longer than most of the other equipment." Nonetheless, there are key differences between the B2C and B2C development of brand attachment. This research sought to elucidate two of them: the meaningfulness of work for the end user and the instrumental value of the brand in the work context.

The quantitative model demonstrated the role of meaningfulness of work as an antecedent to brand attachment, as hypothesized. As explained by Park et al. (2010), brand attachment can be driven by how the brand helps the individual meet certain goals that are "meaningful" to the individual (p. 2). The importance of work to the individual clearly materialized in the interviews with end users, notably the role that certain brands played in terms of completing tasks and ultimately finding meaning on the job. The meaningfulness of work for the end user and the associated relationship with the supplier firm brand was a key finding from both the quantitative results and qualitative interviews. Ron, pipe foreman, explained how he likes to share the meaningfulness of his work with his children:

> Well, I take them outside and I've got them little small tractors they play with. We act like we're moving dirt on a job sight. I'll bring videos home and I'll bring pictures home and say, "Hey guys. Check out what daddy did today." If a job site is close enough, I'll let them come out here and sit on the tractors and just kind of incorporate them.

Henry, grading equipment operator, noted that he always turns to Caterpillar equipment to get the job done: “You have the trust there that they're going to be there every day. What's the word I'm looking for? Dependable, not breaking down a whole lot. Caterpillar has been the name forever as far as I'm concerned.” He went on to elaborate on why he wanted the Caterpillar track loader:

> I requested a track loader instead of like a bulldozer and excavator. I had to clear an area. It's actually on the other side of the roller over there, where there isn't any trees. I had to clear that area. I could have got a bulldozer and excavator to do it. I didn't have those freed up at that time, so I requested the track loader because the track loader, to me, can do the job of an excavator and a bulldozer as far as clearing land goes because you have the ability to pop up and push down trees as well as take the teeth and clean up the ground where it take both of those two machines to do it.

As explained by Frankl’s Logotherapy (1959), the completion of task at work leads to the development of meaning. Current research establishes how supplier firm brands help end users find meaning at work by helping them complete the necessary tasks on the job.

Perhaps more intuitively, the role of brand performance on the job also shows a significant and positive relationship to end user brand attachment in both the qualitative and quantitative phases. The brand job performance scale (Welbourne et al. 1998) that was used for the quantitative phase was a personal performance scale adapted from organization behavior literature. This scale is widely used to measure context-specific role-based performance on the job, and I adapted it to reflect the end user’s daily experience with the supplier firm brand, following the brand attachment literature’s focus on brand experience (Park et al. 2010, Thomson et al. 2005). It demonstrated construct validity and a strong relationship to brand attachment in the survey experiment.

Findings from the qualitative interviews also show a strong relationship between brand performance on the job and the development of end user supplier firm brand (emotional) attachment. Andy, pipe layer, explained, “In my experience people are more likely to like it [the Caterpillar tractor] because it’s a better tractor. It’s smoother. It operates better. They’re just a better tractor… To me, it doesn’t matter where it’s made. It’s how it operates.” In step with the brand attachment scale, many equipment operators and nurses used words such as “like,” or “love” or “attached to” the brands they used on the job. Mike, the finishing foreman, stated plainly, “There was one particular tractor that I love more than anything and that's the John Deere 450. It's the perfect finish dozer for me.” In summary, much like Belaid and Behi 2011, this research demonstrates how the utilitarian aspect of brand performance can lead to emotional bonds.

Another key contribution of this research was the description and exploration of how end user’s strong connections with supplier firm brands, such as brand attachment, can lead to engagement behaviors. In step with Harmeling et al. (2017)’s definition of engagement, “a customer’s voluntary resource contribution to a firm’s marketing function, going beyond financial patronage” (p.316), end users can be vocal proponents for supplier firm brands within a customer firm. The quantitative model showed a strong positive relationship between brand attachment and end user engagement behaviors in favor of the supplier firm brand. The engagement behavior scale (from Van Doorn et al. 2010, Vivek et al. 2014) was adapted to reflect the end user environment and engagement behaviors uncovered during the qualitative phase of current research.

During the qualitative interviews, end users revealed that they demonstrated engagement behaviors both on and off the job. Ed, clearing specialist, explained that each equipment operator would advocate for his favorite brand whenever possible: “There's a lot people like the CAT better… They'll tell you they like it better. But I guess everybody got different flavors.” Ted,

finishing foreman, had a similar comment about users sharing opinions with other users, “When you're on the job. No, not more or less complaining, you know just, ‘Well, that's a piece of crap,’ you know what I mean?” Supporting supplier firm brands off the job is a common activity for end users as well. This was evident both from the quantitative results as well as from the qualitative findings. When I asked James, finishing foreman about wearing a supplier firm brand hat outside of work, he replied:

> Oh yeah, oh yeah, sure do. Well… my friends, they know I'm an operator, but they'll come up to me and say, ‘Man, I like your hat, where did you get it,’ and I'll tell them, ‘Got it from someone at work, or got it from a salesman demoing equipment for them.’

In short, an important aspect of the research presented here is the examination of engagement in the context of end users. Although my extensive secondary research search found sparse information in the literature on end users and engagement, the end user context is particularly suited to study engagement because of the evidence of strong supplier firm brand attachment. End users can be key influencers in the buying process (Kohli 1989) and the source of valuable information on product use now available to supplier firms due to emerging media technologies (Dawar 2004). Their importance is recognized by practitioners, as in reflected in the marketing activities directed toward them.

Indeed, one aim of this study was to explore the potential impacts of marketing activities on end users and their sense of connection to the supplier firm and eventually engagement behaviors. As discussed earlier, the quantitative study did not find significant differences between the different marketing activities. This may potentially be due to the limitations of the context of the quantitative survey, notably using panel data rather than being able to work closely with a supplier firm and its key end users. Alternatively, attribution theory suggests that respondents

may have assumed that AWS was going to use all types of feedback to improve their products due to AWS' historical business practices. Nonetheless, the qualitative portion of current research provides interesting examples of how marketing activities are experienced by end users.

One type of marketing activity that was often mentioned and thus had presumably made an impression on the equipment operators was supplier firm brand swag. Tim, the pipe layer, explained that Caterpillar was better known because more end users had exposure to the brand swag. He stated:

> You know I think Caterpillar puts out more merchandise than any other, I mean yeah, Komatsu has hats, John Deere puts out a decent amount of stuff. But as far as heavy equipment it seems that Caterpillar pushes more merchandise out, it's more readily available than anything else. I might not be looking in the right place, I don't know.

End users also use their own money to buy supplier firm merchandise. Jeff, grading foreman, expounded:

> They used to, 10 years ago, when you go to pick up a part or something from Caterpillar dealer, you could ask for a hat and they'd give it to you. But you have to buy them now. They have them there. You can buy shirts. Some stores have them. A lot of people do buy Caterpillar shirts and stuff.

Getting free supplier firm brand swag is still common after customer firm purchase of new equipment. James, finishing, explained succinctly that about a week after new equipment is dropped off, "…he [supplier firm brand salesperson] came back out and gave me a couple of hats and some stickers."

Indeed, a key source of interaction with supplier firm brands, beyond using the brand to complete job tasks, were the salespeople from the brand. Ron, pipe layer, expounded on the role of salespeople:

> Yeah, I have a salesman or two come out and ask you about stuff. Usually, when you they first buy a tractor or something, they'll come out and ask if everything is going okay. Like, my backhoe, I had a problem with it holding the hydraulic pressure. You'd hold a pipe up and it'd leak. You'd see it ... I could see it dropping a little bit.
>
> And it wasn't really a whole lot to complain about but, it being a brand-new tractor with 200 hours on it I'm like, "Hey man, something is wrong here." What it was just a relief valve that had to be adjusted. I mean, it comes from the factory. Sometimes they don't get adjusted right but they'll come out and say, "Is everything okay?" Usually within the first four, three or 400 hours you'll see a salesman, or somebody will ask you, "How's it going?"
>
> Yeah, they'll come ... Well I mean, they'll drive out to you and say, "Hey man, how's this machine doing? I know y'all just got it." Just tell them, "Well, it's doing this. It's doing that. I think it needs to be turned up or the hydraulics need to be tweaked a little bit." If that's the case, they'll bring a mechanic out there and plug the hydraulics in. They'll turn them up to whatever and make sure they're within their specs that they're supposed to be. Sometimes they're not turned up like they need to be.

The optimum role of sales people for end user interactions would be a pertinent topic for future research.

Finally, similar to the marketing activities in the quantitative portion of current research, many of the equipment operators interviewed said they would be willing to provide feedback directly to the equipment manufacturer. When I asked Mike, the finishing foreman, about responding to an inquiry from a supplier firm, he replied:

> I would. If I have time and it's something genuine, that's no problem. If it's just some random questions that mean nothing, then no, but if they ask me how I feel about particular pieces of equipment, I'd be happy to give them feedback. That's how we progress in this world. You don't know unless you ask.

Ron, the pipe layer, said simply about an email request for feedback from a supplier firm, "I might not answer them right then but, I'd probably answer them."

The other side of course of marketing activities is the supplier firm's management team. Echoing findings from academic research (Brown, et al. 2011, Michaelidou and Christodoulides 2011, Glynn 2012), managers in supplier firms by and large believe that their marketing activities are important for building relationships with different stakeholders in the customer firm. Both industry and academia are less clear on which marketing activities are most effective for which stakeholders. As mentioned earlier, many of the managers interviewed expressed a belief that end users were important but also noted that it can be hard to quantify their importance. The VP of Marketing for the heavy equipment manufacturer first commented:

> Most of our marketing efforts are focused on creating pull, so creating that brand awareness and that brand decision. Then having them go back through our distribution channel in order to fulfill it.

He also commented though that:

> the sale's process that we have in the channel to market makes it difficult to do that [judge the role of end users as influencers], because at the end of the day we sell to distributors. We can create all of this demand from an end user and we can actually create the buying signal, and if they head into a distributor and buy all we see is the reorder from the distributor to refill the stock that was taken. For us it's very difficult to track the specific end user and whether or not we've driven that demand, and it's been fulfilled, or if they're still in that not sure phase.

In short, another area ripe for future research is how supplier firms can better quantify the role of end users.

What was manifest, though, from manager interviews, is that most feel that they ignore end users at their peril. One VP of marketing from a heavy equipment supplier was blunt:

> I think any marketing product reader who doesn't think the user of their assets is critical to the long-term success of the brand, is an idiot. I mean, nothing short of an idiot, because if they're not engaged, then someone else is going to come in and say, "Oh, jeez, why don't I build an asset that is applicable to your requirements?" And how long would it take before the owners of the company say, "Oh, my God. That's going to make my team more productive, and safer, and drive efficiency, and happier workers in an environment where it's hard to get labor." I mean, how long do you think before that manufacturer's going to be usurped? It ain't long.

B2B managers were also clear that end users were absolutely essential for maintaining a price premium. The managing director from the tool manufacturer explained:

> we actually marketed directly to the end user, because [our] tools were more expensive. We thought that if we could get the end user on our side, it would

> influence the purchasing manager to make a different selection, and not just choose the product based on price, but it would be based on quality and functionality and performance, and also keeping the workers happy, which as it turns out, is pretty important.

Again, in the above quote, one sees the key role of instrumental value in a B2B environment and how end users can uniquely appreciate the instrumental value of the supplier firm brand because of their stakeholder role in the customer firm.

Finally, another potential area for more research from the full SEM is a theoretical explanation for why brand performance may fully mediate the relationship between meaningfulness of work and brand attachment. The Elaboration Likelihood Model (Cacioppo and Petty 1984, Petty and Cacioppo 1986) may be a productive line of inquire for future research. It is possible that individuals who find more meaning at work would be more likely to rate supplier firm brands more highly because they are using the central route to evaluate the brand (as compared to the peripheral route). In short, end users who are seeking (and finding) more meaning at work would be more likely to apply themselves on the job, be more involved, and possess more knowledge, thus improving their rating of a supplier firm with a premium product, such as AWS cloud services.

In summary, this research makes several key contributions to the B2B marketing literature. First, it illuminates how a key organizational behavior concept, meaningfulness of work, and its associated theory, logotherapy (Frankl, 1959), can be applied to brand attachment in a work context. Second, it highlights the role of instrumental value in the development of brand attachment in a distinctive setting: the completion of tasks at work. More concretely, it outlines the unique role of end users within the customer firms and how the theoretical lens of logotherapy provides a way to understand how end users find meaning on their job and how they develop

strong feelings for supplier firm brands because of the key role supplier firm brands play in completing tasks at work. It is important to note that the end user would have to see the brand as being inextricably tied to doing the job and specifically doing the job well. Therefore, only certain work brands would enter into this domain of meaning creation for an end user, those with strong instrumental value. In addition, supplier firm brands may also be a source of shared meanings for end users as a whole and a way for them to connect with other end users through those shared meanings or values. Finally, the results from the qualitative and quantitative findings suggest interesting avenues for future research. For example, the qualitative results provide key insights into how supplier firm marketing activities influence end users and provide a basis for the development of strong connections to supplier firm brands, such as brand attachment. In addition, the post-hoc structural equation model suggests that ELM may be a useful theory to understand how the meaningfulness of work for an individual may influence how she or he evaluates brands encountered on the job as part of the process of the development of brand attachment.

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APPENDICES

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APPENDIX A: End User Interview Guide

Work Identity

- What do you currently do for a living?
- How do you explain your job to other people who may not be familiar with your industry?
- How long have you had this particular job?
- How often do you think about your work when you are not there? Specifically, do you think about how to solve problems on the job, even when not at work?
- When you were young, is your current job what you envisioned yourself doing? If not, what did you envision?

Products on the Job

- What type of products do you use on the job?
    - Purpose of the product
    - Name/brand
    - How long
- Who decides which product you use?

Communicating about the Product(s)/Brands

- Discussions with peers and/or coworkers
    - Medium
    - Frequency
    - Content
- Discussions internal to the firm/non-peers
    - Which stakeholders?
        - Attempts to influence decision making?
    - Medium
    - Frequency
    - Content

- Discussions/communications with supplier firms (manufacturers)
    - Medium
    - Frequency
    - Content
- Discussions with individuals outside of the work environment
    - Medium
    - Frequency
    - Content

Prospection

- Where do you see yourself professionally in 10 years?
- Do you expect to be using the same products/brands?

* Probes related to each question depending on respondent's answers to be used

APPENDIX B: Marketing Managers Interview Guide

Current Role

- What is your current position?
- What are your primary responsibilities?
- How do you explain your job to other people who may not be familiar with your industry?

Company Strategy

- What are your company's strategic priorities right now?
- What keeps you awake at night?

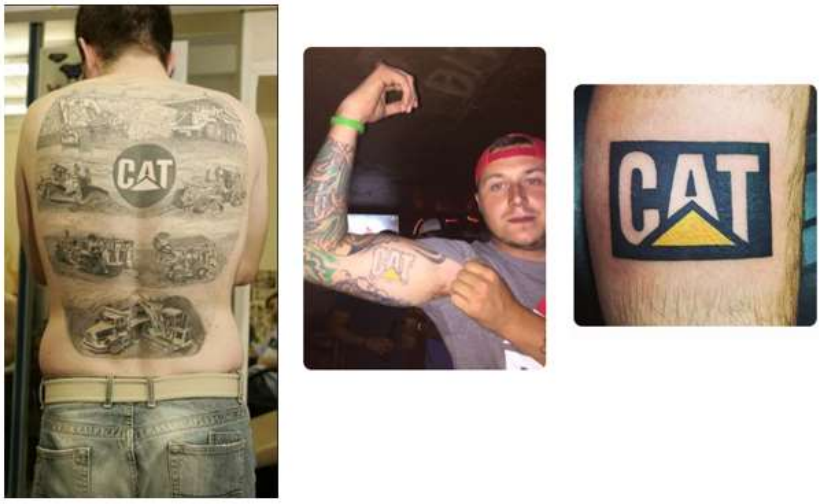
Current Marketing Initiatives

- Could you please describe your current marketing initiatives?
    - Which stakeholder groups do you target in particular?
        - End users, decision makers, etc.
- Past marketing initiatives that you feel were particularly successful?
    - What made them standout?
- What is "best practice" in the industry in terms of reaching specific groups?
- What are the challenges/limitations with social media marketing?

* Probes related to each question depending on respondent's answers to be used

APPENDIX C: Images of End Users with Supplier Brand Tattoos

Figure 24: Caterpillar Heavy Equipment Tattoos[12][13]



OPERATOR'S LOYALTY IS MORE THAN SKIN DEEP

It's not unusual for machine operators to wear clothing bearing the name of their employer or favorite equipment brand, but Ian Branson has taken it one step further.

Branson, who works in Karratha, Western Australia, has been operating motor graders for nearly 25 years. So when he decided to get his first tattoo, it seemed only natural that it would be a motor grader.

"I've wanted to get a tat for a long time and I wanted something with meaning," he explained. As a final trim operator for Gunther Civil, Branson runs a Cat® M Series Motor Grader. "I really like it because it's so easy to operate." Branson took a photo of the grader with the company logo on it to Sharkey's Tattoo Studio in Byron Bay. Three (slightly painful) hours later, he was sporting a unique work of art on his right bicep.

Branson is totally happy with it. "Everyone who has a look at it says 'wow.' It's so different." He said his fellow operators love it. "It's individual – it's kind of like having a toy on your arm."

[12] https://www.google.com/search?q=heavy+equipment+tattoos&rlz=1C1CHBF_enUS743US743&tbm=isch&tbo=u&source=univ&sa=X&ved=0ahUKEwinlv_nh_TXAhUK84MKHfgUDZcQsAQIKA&biw=1367&bih=1016#imgrc=aQfy9cHSktPJ8M, Google search heavy equipment tattoo, viewed on 11/23/2017

[13] https://www.cat.com/en_MX/articles/customer-stories/operator-s-loyaltyismorethanskindeep.html, viewed on 11/23/2017

Figure 25: Hilti Tattoo

Hilti Highlights Tattoo on its Twitter Feed[14]

[14] https://twitter.com/hiltinamerica/status/910881449548685312, viewed on 11/30/2017

Figure 26: Rolls-Royce Aerospace Tattoo

Rolls-Royce Engine Tattooed on Aspiring Airplane Pilot[15]

[15] https://www.aopa.org/news-and-media/all-news/2011/october/01/tattoos-in-the-air, viewed on 12/1/2017

Figure 27: The Crosby Group Tattoo

The Crosby Group Highlights Tattooed Iron Worker on its Website[16]

Kyle Teynor's Crosby Tattoo

Posted by Crosby on Jul 18, 2016 4:00:00 PM

Tweet Share 0 Like 0 Share G+

Kyle Teynor's Crosby tattoo is a striking example of the passion we at Crosby see for our brand on a regular basis—only Kyle took his enthusiasm into art. "I really don't trust anything that's not a Crosby, if it's going to be anywhere near my head or above me," says Kyle. "Most of the people I've worked for, most of the contractors, that's all we use is Crosby." The tattoo is inspired by a 6.5 ton Crosby shackle. It's this level of excitement and loyalty that we see in our customers each day that fuels our passion to continue with the Crosby tradition: providing innovation, selection, quality, and value to our customers worldwide—yesterday, today, and tomorrow. Click here to read more about Kyle.

Topics: Other, Products, People

[16] http://news.thecrosbygroup.com/news/kyle-teynor-crosby-tattoo, viewed on November 15, 2017

APPENDIX D: Relevant Outputs from Mplus for the Confirmatory Factor Analysis

Table 19. First CFA: Unstandardized Factor Loadings

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
MEANINGW BY				
MNWORK1	1.000	0.000	999.000	999.000
MNWORK2	1.020	0.050	20.544	0.000
MNWORK3	1.037	0.050	20.634	0.000
MNWORK4	1.022	0.049	20.751	0.000
MNWORK5	1.030	0.050	20.615	0.000
MWORK6	1.015	0.049	20.791	0.000
B_ATTACH BY				
ATTACH1	1.000	0.000	999.000	999.000
ATTACH2	1.408	0.075	18.894	0.000
ATTACH3	1.049	0.062	16.968	0.000
ATTACH4	1.114	0.066	16.965	0.000
ATTACH5	1.303	0.067	19.386	0.000
ATTACH6	1.430	0.077	18.664	0.000
ATTACH7	1.508	0.080	18.957	0.000
AWS_PERF BY				
AWSPERF1	1.000	0.000	999.000	999.000
AWSPERF2	1.093	0.049	22.285	0.000
AWSPERF3	1.128	0.052	21.875	0.000
AWSPERF4	1.111	0.051	21.827	0.000
AWSPERF5	1.109	0.053	20.967	0.000
AWSPERF6	1.035	0.047	21.819	0.000
AWSPERF7	1.061	0.052	20.399	0.000
DECPOWER BY				
DPOWER1	1.000	0.000	999.000	999.000
DPOWER2	0.959	0.038	25.370	0.000
DPOWER3	1.099	0.040	27.340	0.000
DPOWER4	1.048	0.036	28.844	0.000
COMP__ID BY				
CO_ID1	1.000	0.000	999.000	999.000
CO_ID2	0.926	0.043	21.486	0.000
CO_ID3	0.879	0.042	20.844	0.000
CO_ID4	0.941	0.049	19.256	0.000
CO_ID5	0.848	0.042	20.120	0.000
ENGAGEMT BY				
ENGAGE_1	1.000	0.000	999.000	999.000
ENGAGE_2	0.927	0.068	13.700	0.000
ENGAGE_3	1.201	0.078	15.305	0.000
ENGAGE_4	1.184	0.077	15.286	0.000
ENGAGE_5	1.185	0.080	14.884	0.000
ENGAGE_6	1.004	0.068	14.712	0.000
ENGAGE_7	0.942	0.066	14.178	0.000
ENGAGE_8	1.038	0.074	14.113	0.000
ENGAGE_9	1.147	0.082	13.938	0.000
ENGAG_10	1.068	0.081	13.255	0.000
ENGAG_11	0.990	0.072	13.776	0.000

Table 20. First CFA: Standardized Factor Loadings

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
MEANINGW BY				
MNWORK1	0.805	0.019	42.097	0.000
MNWORK2	0.857	0.015	57.342	0.000
MNWORK3	0.863	0.014	59.860	0.000
MNWORK4	0.869	0.014	62.258	0.000
MNWORK5	0.865	0.014	60.714	0.000
MWORK6	0.870	0.014	63.003	0.000
B_ATTACH BY				
ATTACH1	0.780	0.021	36.634	0.000
ATTACH2	0.850	0.016	54.074	0.000
ATTACH3	0.766	0.022	34.316	0.000
ATTACH4	0.768	0.022	34.890	0.000
ATTACH5	0.859	0.015	58.831	0.000
ATTACH6	0.847	0.016	52.800	0.000
ATTACH7	0.856	0.015	56.246	0.000
AWS_PERF BY				
AWSPERF1	0.809	0.018	44.268	0.000
AWSPERF2	0.895	0.011	79.931	0.000
AWSPERF3	0.884	0.012	73.213	0.000
AWSPERF4	0.885	0.012	73.307	0.000
AWSPERF5	0.859	0.014	60.535	0.000
AWSPERF6	0.884	0.012	72.807	0.000
AWSPERF7	0.846	0.015	55.355	0.000
DECPOWER BY				
DPOWER1	0.897	0.012	75.722	0.000
DPOWER2	0.865	0.014	60.150	0.000
DPOWER3	0.900	0.012	77.568	0.000
DPOWER4	0.914	0.010	87.781	0.000
COMP__ID BY				
CO_ID1	0.846	0.017	50.080	0.000
CO_ID2	0.843	0.017	49.742	0.000
CO_ID3	0.839	0.017	48.569	0.000
CO_ID4	0.801	0.020	39.688	0.000
CO_ID5	0.828	0.018	45.510	0.000
ENGAGEMT BY				
ENGAGE_1	0.665	0.029	22.804	0.000
ENGAGE_2	0.749	0.023	32.366	0.000
ENGAGE_3	0.853	0.015	55.911	0.000
ENGAGE_4	0.849	0.016	53.982	0.000
ENGAGE_5	0.817	0.018	44.909	0.000
ENGAGE_6	0.825	0.017	47.459	0.000
ENGAGE_7	0.791	0.020	39.305	0.000
ENGAGE_8	0.784	0.021	38.038	0.000
ENGAGE_9	0.765	0.022	34.568	0.000
ENGAG_10	0.727	0.025	29.065	0.000
ENGAG_11	0.765	0.022	34.562	0.000

Table 21. First CFA: Communalities of Indicators with Their Constructs

R-SQUARE

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
DPOWER1	0.805	0.021	37.861	0.000
DPOWER2	0.748	0.025	30.075	0.000
DPOWER3	0.811	0.021	38.784	0.000
DPOWER4	0.836	0.019	43.890	0.000
MNWORK1	0.648	0.031	21.048	0.000
MNWORK2	0.734	0.026	28.671	0.000
MNWORK3	0.744	0.025	29.930	0.000
MNWORK4	0.755	0.024	31.129	0.000
MNWORK5	0.748	0.025	30.357	0.000
MWORK6	0.757	0.024	31.501	0.000
AWSPERF1	0.655	0.030	22.134	0.000
AWSPERF2	0.800	0.020	39.966	0.000
AWSPERF3	0.782	0.021	36.606	0.000
AWSPERF4	0.782	0.021	36.654	0.000
AWSPERF5	0.739	0.024	30.267	0.000
AWSPERF6	0.781	0.021	36.403	0.000
AWSPERF7	0.716	0.026	27.678	0.000
CO_ID1	0.715	0.029	25.040	0.000
CO_ID2	0.711	0.029	24.871	0.000
CO_ID3	0.704	0.029	24.285	0.000
CO_ID4	0.642	0.032	19.844	0.000
CO_ID5	0.686	0.030	22.755	0.000
ATTACH1	0.609	0.033	18.317	0.000
ATTACH2	0.723	0.027	27.037	0.000
ATTACH3	0.587	0.034	17.158	0.000
ATTACH4	0.590	0.034	17.445	0.000
ATTACH5	0.738	0.025	29.416	0.000
ATTACH6	0.717	0.027	26.400	0.000
ATTACH7	0.733	0.026	28.123	0.000
ENGAGE_1	0.443	0.039	11.402	0.000
ENGAGE_2	0.561	0.035	16.183	0.000
ENGAGE_3	0.727	0.026	27.956	0.000
ENGAGE_4	0.720	0.027	26.991	0.000
ENGAGE_5	0.667	0.030	22.455	0.000
ENGAGE_6	0.681	0.029	23.730	0.000
ENGAGE_7	0.625	0.032	19.653	0.000
ENGAGE_8	0.615	0.032	19.019	0.000
ENGAGE_9	0.586	0.034	17.284	0.000
ENGAG_10	0.529	0.036	14.532	0.000
ENGAG_11	0.585	0.034	17.281	0.000

Table 22. First CFA: Model Fit Indices

MODEL FIT INFORMATION		
Number of Free Parameters	135	
Loglikelihood		
H0 Value	-22126.767	
H1 Value	-21020.353	
Information Criteria		
Akaike (AIC)	44523.535	
Bayesian (BIC)	45064.393	
Sample-Size Adjusted BIC (n* = (n + 2) / 24)	44636.019	
Chi-Square Test of Model Fit		
Value	2212.829	
Degrees of Freedom	725	
P-Value	0.0000	
RMSEA (Root Mean Square Error Of Approximation)		
Estimate	0.071	
90 Percent C.I.	0.068	0.074
Probability RMSEA <= .05	0.000	
CFI/TLI		
CFI	0.906	
TLI	0.899	
Chi-Square Test of Model Fit for the Baseline Model		
Value	16559.358	
Degrees of Freedom	780	
P-Value	0.0000	
SRMR (Standardized Root Mean Square Residual)		
Value	0.049	

Table 23. Second CFA: Unstandardized Factor Loadings

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
MEANINGW BY				
MNWORK1	1.000	0.000	999.000	999.000
MNWORK2	1.020	0.050	20.538	0.000
MNWORK3	1.037	0.050	20.619	0.000
MNWORK4	1.023	0.049	20.742	0.000
MNWORK5	1.031	0.050	20.606	0.000
MWORK6	1.015	0.049	20.786	0.000
B_ATTACH BY				
ATTACH2	1.000	0.000	999.000	999.000
ATTACH5	0.880	0.039	22.845	0.000
ATTACH6	1.035	0.040	25.648	0.000
ATTACH7	1.080	0.042	25.711	0.000
AWS_PERF BY				
AWSPERF1	1.000	0.000	999.000	999.000
AWSPERF2	1.094	0.049	22.228	0.000
AWSPERF3	1.130	0.052	21.852	0.000
AWSPERF4	1.112	0.051	21.783	0.000
AWSPERF5	1.110	0.053	20.928	0.000
AWSPERF6	1.036	0.048	21.776	0.000
AWSPERF7	1.060	0.052	20.316	0.000
DECPOWER BY				
DPOWER1	1.000	0.000	999.000	999.000
DPOWER2	0.958	0.038	25.381	0.000
DPOWER3	1.099	0.040	27.330	0.000
DPOWER4	1.048	0.036	28.860	0.000
COMP__ID BY				
CO_ID1	1.000	0.000	999.000	999.000
CO_ID2	0.926	0.043	21.488	0.000
CO_ID3	0.879	0.042	20.846	0.000
CO_ID4	0.941	0.049	19.255	0.000
CO_ID5	0.848	0.042	20.118	0.000
ENGAGEMT BY				
ENGAGE_1	1.000	0.000	999.000	999.000
ENGAGE_2	0.921	0.067	13.738	0.000
ENGAGE_3	1.195	0.078	15.389	0.000
ENGAGE_4	1.180	0.077	15.385	0.000
ENGAGE_5	1.183	0.079	15.002	0.000
ENGAGE_6	0.997	0.068	14.763	0.000
ENGAGE_7	0.936	0.066	14.236	0.000
ENGAGE_8	1.033	0.073	14.181	0.000
ENGAGE_9	1.145	0.082	14.037	0.000
ENGAG_10	1.064	0.080	13.321	0.000
ENGAG_11	0.984	0.071	13.825	0.000

Table 24. Second CFA: Standardized Factor Loadings

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
MEANINGW BY				
MNWORK1	0.805	0.019	42.047	0.000
MNWORK2	0.857	0.015	57.354	0.000
MNWORK3	0.863	0.014	59.781	0.000
MNWORK4	0.869	0.014	62.253	0.000
MNWORK5	0.865	0.014	60.706	0.000
MWORK6	0.870	0.014	63.053	0.000
B_ATTACH BY				
ATTACH2	0.878	0.014	64.909	0.000
ATTACH5	0.844	0.016	51.383	0.000
ATTACH6	0.890	0.013	71.022	0.000
ATTACH7	0.892	0.012	71.840	0.000
AWS_PERF BY				
AWSPERF1	0.808	0.018	44.009	0.000
AWSPERF2	0.895	0.011	79.691	0.000
AWSPERF3	0.885	0.012	73.499	0.000
AWSPERF4	0.885	0.012	73.279	0.000
AWSPERF5	0.860	0.014	60.492	0.000
AWSPERF6	0.884	0.012	72.789	0.000
AWSPERF7	0.845	0.015	54.861	0.000
DECPOWER BY				
DPOWER1	0.897	0.012	75.804	0.000
DPOWER2	0.865	0.014	60.165	0.000
DPOWER3	0.900	0.012	77.369	0.000
DPOWER4	0.914	0.010	87.827	0.000
COMP__ID BY				
CO_ID1	0.846	0.017	50.095	0.000
CO_ID2	0.843	0.017	49.732	0.000
CO_ID3	0.839	0.017	48.579	0.000
CO_ID4	0.801	0.020	39.674	0.000
CO_ID5	0.828	0.018	45.485	0.000
ENGAGEMT BY				
ENGAGE_1	0.668	0.029	23.056	0.000
ENGAGE_2	0.747	0.023	32.097	0.000
ENGAGE_3	0.852	0.015	55.729	0.000
ENGAGE_4	0.849	0.016	54.182	0.000
ENGAGE_5	0.819	0.018	45.484	0.000
ENGAGE_6	0.823	0.018	46.855	0.000
ENGAGE_7	0.789	0.020	39.081	0.000
ENGAGE_8	0.784	0.021	37.978	0.000
ENGAGE_9	0.767	0.022	34.878	0.000
ENGAG_10	0.728	0.025	29.110	0.000
ENGAG_11	0.764	0.022	34.358	0.000

Table 25. Third CFA: Unstandardized Factor Loadings

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
MEANINGW BY				
MNWORK1	1.000	0.000	999.000	999.000
MNWORK2	1.020	0.050	20.540	0.000
MNWORK3	1.037	0.050	20.620	0.000
MNWORK4	1.023	0.049	20.742	0.000
MNWORK5	1.031	0.050	20.605	0.000
MWORK6	1.015	0.049	20.786	0.000
B_ATTACH BY				
ATTACH2	1.000	0.000	999.000	999.000
ATTACH5	0.881	0.039	22.842	0.000
ATTACH6	1.035	0.040	25.627	0.000
ATTACH7	1.081	0.042	25.681	0.000
AWS_PERF BY				
AWSPERF1	1.000	0.000	999.000	999.000
AWSPERF2	1.094	0.049	22.225	0.000
AWSPERF3	1.130	0.052	21.841	0.000
AWSPERF4	1.112	0.051	21.775	0.000
AWSPERF5	1.111	0.053	20.920	0.000
AWSPERF6	1.037	0.048	21.773	0.000
AWSPERF7	1.061	0.052	20.312	0.000
DECPOWER BY				
DPOWER1	1.000	0.000	999.000	999.000
DPOWER2	0.958	0.038	25.398	0.000
DPOWER3	1.098	0.040	27.329	0.000
DPOWER4	1.048	0.036	28.862	0.000
COMP__ID BY				
CO_ID1	1.000	0.000	999.000	999.000
CO_ID2	0.926	0.043	21.485	0.000
CO_ID3	0.879	0.042	20.845	0.000
CO_ID4	0.941	0.049	19.256	0.000
CO_ID5	0.848	0.042	20.117	0.000
ENGAGEMT BY				
ENGAGE_2	1.000	0.000	999.000	999.000
ENGAGE_3	1.296	0.073	17.854	0.000
ENGAGE_4	1.273	0.072	17.624	0.000
ENGAGE_5	1.268	0.076	16.745	0.000
ENGAGE_6	1.100	0.063	17.444	0.000
ENGAGE_7	1.034	0.062	16.675	0.000
ENGAGE_8	1.138	0.069	16.405	0.000
ENGAGE_9	1.245	0.079	15.693	0.000
ENGAG_10	1.166	0.078	14.964	0.000
ENGAG_11	1.088	0.068	16.030	0.000

Table 26. Third CFA: Standardized Factor Loadings

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
MEANINGW BY				
MNWORK1	0.805	0.019	42.052	0.000
MNWORK2	0.857	0.015	57.366	0.000
MNWORK3	0.863	0.014	59.781	0.000
MNWORK4	0.869	0.014	62.246	0.000
MNWORK5	0.865	0.014	60.680	0.000
MWORK6	0.870	0.014	63.052	0.000
B_ATTACH BY				
ATTACH2	0.878	0.014	64.726	0.000
ATTACH5	0.844	0.016	51.454	0.000
ATTACH6	0.890	0.013	70.983	0.000
ATTACH7	0.892	0.012	71.706	0.000
AWS_PERF BY				
AWSPERF1	0.808	0.018	43.975	0.000
AWSPERF2	0.895	0.011	79.771	0.000
AWSPERF3	0.885	0.012	73.441	0.000
AWSPERF4	0.885	0.012	73.266	0.000
AWSPERF5	0.860	0.014	60.478	0.000
AWSPERF6	0.884	0.012	72.855	0.000
AWSPERF7	0.845	0.015	54.884	0.000
DECPOWER BY				
DPOWER1	0.897	0.012	75.890	0.000
DPOWER2	0.865	0.014	60.234	0.000
DPOWER3	0.900	0.012	77.282	0.000
DPOWER4	0.914	0.010	87.755	0.000
COMP__ID BY				
CO_ID1	0.846	0.017	50.080	0.000
CO_ID2	0.843	0.017	49.717	0.000
CO_ID3	0.839	0.017	48.579	0.000
CO_ID4	0.801	0.020	39.689	0.000
CO_ID5	0.828	0.018	45.490	0.000
ENGAGEMT BY				
ENGAGE_2	0.744	0.024	31.559	0.000
ENGAGE_3	0.847	0.016	53.374	0.000
ENGAGE_4	0.840	0.017	50.825	0.000
ENGAGE_5	0.804	0.019	41.828	0.000
ENGAGE_6	0.832	0.017	49.260	0.000
ENGAGE_7	0.799	0.019	41.087	0.000
ENGAGE_8	0.792	0.020	39.368	0.000
ENGAGE_9	0.764	0.022	34.294	0.000
ENGAG_10	0.731	0.025	29.428	0.000
ENGAG_11	0.774	0.021	36.064	0.000

Table 27. Third CFA: Communalities of Indicators with Their Constructs

R-SQUARE

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
DPOWER1	0.805	0.021	37.945	0.000
DPOWER2	0.749	0.025	30.117	0.000
DPOWER3	0.810	0.021	38.641	0.000
DPOWER4	0.836	0.019	43.877	0.000
MNWORK1	0.647	0.031	21.026	0.000
MNWORK2	0.734	0.026	28.683	0.000
MNWORK3	0.744	0.025	29.891	0.000
MNWORK4	0.755	0.024	31.123	0.000
MNWORK5	0.748	0.025	30.340	0.000
MWORK6	0.758	0.024	31.526	0.000
AWSPERF1	0.653	0.030	21.988	0.000
AWSPERF2	0.801	0.020	39.886	0.000
AWSPERF3	0.783	0.021	36.721	0.000
AWSPERF4	0.783	0.021	36.633	0.000
AWSPERF5	0.739	0.024	30.239	0.000
AWSPERF6	0.781	0.021	36.427	0.000
AWSPERF7	0.714	0.026	27.442	0.000
CO_ID1	0.715	0.029	25.040	0.000
CO_ID2	0.711	0.029	24.859	0.000
CO_ID3	0.704	0.029	24.290	0.000
CO_ID4	0.642	0.032	19.845	0.000
CO_ID5	0.686	0.030	22.745	0.000
ATTACH2	0.770	0.024	32.363	0.000
ATTACH5	0.712	0.028	25.727	0.000
ATTACH6	0.793	0.022	35.491	0.000
ATTACH7	0.796	0.022	35.853	0.000
ENGAGE_2	0.554	0.035	15.780	0.000
ENGAGE_3	0.717	0.027	26.687	0.000
ENGAGE_4	0.706	0.028	25.412	0.000
ENGAGE_5	0.647	0.031	20.914	0.000
ENGAGE_6	0.692	0.028	24.630	0.000
ENGAGE_7	0.639	0.031	20.544	0.000
ENGAGE_8	0.627	0.032	19.684	0.000
ENGAGE_9	0.584	0.034	17.147	0.000
ENGAG_10	0.534	0.036	14.714	0.000
ENGAG_11	0.600	0.033	18.032	0.000

Table 28. Third CFA: Model Fit Indices

MODEL FIT INFORMATION

Number of Free Parameters	123	
Loglikelihood		
H0 Value	-19822.409	
H1 Value	-19037.264	
Information Criteria		
Akaike (AIC)	39890.818	
Bayesian (BIC)	40383.600	
Sample-Size Adjusted BIC (n* = (n + 2) / 24)	39993.304	
Chi-Square Test of Model Fit		
Value	1570.291	
Degrees of Freedom	579	
P-Value	0.0000	
RMSEA (Root Mean Square Error Of Approximation)		
Estimate	0.065	
90 Percent C.I.	0.061	0.069
Probability RMSEA <= .05	0.000	
CFI/TLI		
CFI	0.930	
TLI	0.924	
Chi-Square Test of Model Fit for the Baseline Model		
Value	14791.905	
Degrees of Freedom	630	
P-Value	0.0000	
SRMR (Standardized Root Mean Square Residual)		
Value	0.040	

Table 29. Third CFA: Model Modification Indices

MODEL MODIFICATION INDICES

Minimum M.I. value for printing the modification index 8.000

	M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
ON/BY Statements				
DPOWER3 ON B_ATTACH /				
B_ATTACH BY DPOWER3	18.717	0.220	0.299	0.149
CO_ID3 ON B_ATTACH /				
B_ATTACH BY CO_ID3	15.126	-0.127	-0.173	-0.144
ATTACH5 ON AWS_PERF /				
AWS_PERF BY ATTACH5	27.925	0.366	0.388	0.273
ATTACH5 ON DECPOWER /				
DECPOWER BY ATTACH5	18.514	0.148	0.243	0.171
ATTACH5 ON COMP__ID /				
COMP__ID BY ATTACH5	11.369	0.151	0.173	0.122
ATTACH5 ON ENGAGEMT /				
ENGAGEMT BY ATTACH5	9.407	0.215	0.255	0.180
ENGAGE_2 ON AWS_PERF /				
AWS_PERF BY ENGAGE_2	10.705	0.271	0.288	0.180
ENGAGE_2 ON DECPOWER /				
DECPOWER BY ENGAGE_2	8.914	0.142	0.235	0.147
ENGAGE_5 ON COMP__ID /				
COMP__ID BY ENGAGE_5	12.088	-0.206	-0.235	-0.126
ENGAGE_9 ON AWS_PERF /				
AWS_PERF BY ENGAGE_9	13.509	-0.358	-0.380	-0.197
ENGAGE_9 ON DECPOWER /				
DECPOWER BY ENGAGE_9	11.382	-0.189	-0.312	-0.162
ENGAG_10 ON DECPOWER /				
DECPOWER BY ENGAG_10	8.449	-0.168	-0.277	-0.146

Table 29. Third CFA: Model Modification Indices (continued from previous)

ON Statements				
B_ATTACH ON DPOWER1	9.850	-0.184	-0.135	-0.248
B_ATTACH ON DPOWER3	27.015	0.283	0.208	0.418
B_ATTACH ON ATTACH5	28.812	-0.389	-0.286	-0.406
AWS_PERF ON ATTACH5	8.276	0.134	0.126	0.179
DECPOWER ON AWSPERF4	8.903	-0.320	-0.194	-0.258
COMP__ID ON ENGAGE_4	13.189	-0.155	-0.136	-0.244
ENGAGEMT ON ENGAGE_2	8.552	-0.120	-0.101	-0.162
DPOWER1 ON DPOWER3	13.553	-0.279	-0.279	-0.305
DPOWER3 ON DPOWER1	13.555	-0.326	-0.326	-0.298
DPOWER3 ON ATTACH2	22.638	0.186	0.186	0.144
DPOWER3 ON ATTACH6	22.868	0.185	0.185	0.145
DPOWER3 ON ATTACH7	17.000	0.153	0.153	0.125
MNWORK1 ON MNWORK2	10.056	0.225	0.225	0.216
MNWORK1 ON CO_ID1	13.755	0.148	0.148	0.157
MNWORK2 ON MNWORK1	10.056	0.156	0.156	0.163
MNWORK4 ON DPOWER1	10.706	-0.063	-0.063	-0.095
MNWORK4 ON DPOWER2	9.002	-0.058	-0.058	-0.087
MNWORK4 ON AWSPERF1	19.064	-0.120	-0.120	-0.130
MNWORK4 ON AWSPERF2	12.650	-0.101	-0.101	-0.109
AWSPERF1 ON DPOWER1	13.041	0.100	0.100	0.140
AWSPERF1 ON CO_ID1	9.834	0.107	0.107	0.111
AWSPERF2 ON AWSPERF5	8.997	-0.150	-0.150	-0.159
AWSPERF4 ON AWSPERF5	16.137	0.213	0.213	0.218
AWSPERF5 ON AWSPERF2	8.997	-0.220	-0.220	-0.208
AWSPERF5 ON AWSPERF4	16.138	0.270	0.270	0.263
AWSPERF5 ON ATTACH7	11.448	0.107	0.107	0.129
AWSPERF6 ON AWSPERF7	18.801	0.208	0.208	0.223
AWSPERF6 ON ATTACH2	9.473	-0.086	-0.086	-0.108
AWSPERF6 ON ENGAGE_9	8.176	-0.057	-0.057	-0.088
AWSPERF7 ON AWSPERF6	18.800	0.312	0.312	0.292
CO_ID1 ON MNWORK1	12.991	0.150	0.150	0.142
CO_ID1 ON MNWORK2	10.637	0.150	0.150	0.136
CO_ID1 ON AWSPERF1	13.838	0.131	0.131	0.127
CO_ID1 ON CO_ID2	22.039	0.341	0.341	0.317
CO_ID1 ON CO_ID5	22.495	-0.346	-0.346	-0.299
CO_ID2 ON CO_ID1	22.039	0.299	0.299	0.322
CO_ID3 ON CO_ID5	8.063	0.185	0.185	0.181
CO_ID3 ON ATTACH5	17.465	-0.118	-0.118	-0.140
CO_ID3 ON ATTACH6	14.252	-0.097	-0.097	-0.129
CO_ID3 ON ATTACH7	10.726	-0.081	-0.081	-0.112
CO_ID3 ON ENGAGE_3	8.146	-0.061	-0.061	-0.093
CO_ID3 ON ENGAGE_4	15.129	-0.084	-0.084	-0.127
CO_ID3 ON ENGAGE_5	8.865	-0.062	-0.062	-0.096
CO_ID4 ON DPOWER3	8.641	0.071	0.071	0.107
CO_ID4 ON DPOWER4	9.289	0.079	0.079	0.111
CO_ID4 ON MNWORK2	10.464	-0.159	-0.159	-0.145
CO_ID4 ON CO_ID5	14.760	0.293	0.293	0.256
CO_ID4 ON ENGAGE_6	8.144	0.085	0.085	0.099
CO_ID5 ON CO_ID1	22.495	-0.286	-0.286	-0.330
CO_ID5 ON CO_ID3	8.063	0.187	0.187	0.191
CO_ID5 ON CO_ID4	14.760	0.195	0.195	0.224

Table 29. Third CFA: Model Modification Indices (continued from previous)

ATTACH2	ON	ENGAGE_6	8.260	-0.109	-0.109	-0.110
ATTACH5	ON	DPOWER1	19.283	0.121	0.121	0.156
ATTACH5	ON	DPOWER2	15.673	0.108	0.108	0.138
ATTACH5	ON	DPOWER4	14.611	0.103	0.103	0.137
ATTACH5	ON	MNWORK5	9.194	0.113	0.113	0.097
ATTACH5	ON	AWSPERF1	24.182	0.203	0.203	0.188
ATTACH5	ON	AWSPERF2	19.570	0.203	0.203	0.186
ATTACH5	ON	AWSPERF3	8.734	0.128	0.128	0.122
ATTACH5	ON	AWSPERF4	8.955	0.132	0.132	0.124
ATTACH5	ON	AWSPERF6	23.948	0.231	0.231	0.203
ATTACH5	ON	AWSPERF7	21.791	0.197	0.197	0.185
ATTACH5	ON	CO_ID2	9.234	0.112	0.112	0.099
ATTACH5	ON	CO_ID4	8.558	0.099	0.099	0.094
ATTACH5	ON	CO_ID5	9.131	0.118	0.118	0.098
ATTACH5	ON	ENGAGE_6	8.252	0.107	0.107	0.118
ENGAGE_2	ON	DPOWER1	8.413	0.109	0.109	0.126
ENGAGE_2	ON	AWSPERF2	14.033	0.215	0.215	0.175
ENGAGE_2	ON	AWSPERF3	10.676	0.178	0.178	0.151
ENGAGE_2	ON	AWSPERF6	9.216	0.180	0.180	0.140
ENGAGE_2	ON	ENGAGE_9	17.899	-0.194	-0.194	-0.235
ENGAGE_3	ON	ENGAGE_4	109.774	0.609	0.609	0.603
ENGAGE_3	ON	ENGAGE_5	21.352	0.230	0.230	0.237
ENGAGE_3	ON	ENGAGE_8	13.391	-0.193	-0.193	-0.181
ENGAGE_3	ON	ENGAGE_9	15.985	-0.174	-0.174	-0.185
ENGAGE_3	ON	ENGAG_10	20.458	-0.188	-0.188	-0.196
ENGAGE_3	ON	ENGAG_11	11.038	-0.172	-0.172	-0.158
ENGAGE_4	ON	CO_ID3	11.145	-0.155	-0.155	-0.104
ENGAGE_4	ON	ENGAGE_3	109.775	0.620	0.620	0.626
ENGAGE_4	ON	ENGAGE_5	78.551	0.442	0.442	0.460
ENGAGE_4	ON	ENGAGE_6	15.647	-0.257	-0.257	-0.224
ENGAGE_4	ON	ENGAGE_8	12.969	-0.191	-0.191	-0.181
ENGAGE_4	ON	ENGAGE_9	13.434	-0.160	-0.160	-0.172
ENGAGE_4	ON	ENGAG_10	41.228	-0.268	-0.268	-0.282
ENGAGE_4	ON	ENGAG_11	17.461	-0.217	-0.217	-0.201
ENGAGE_5	ON	CO_ID2	9.153	-0.151	-0.151	-0.101
ENGAGE_5	ON	CO_ID3	12.099	-0.181	-0.181	-0.116
ENGAGE_5	ON	CO_ID5	11.037	-0.177	-0.177	-0.111
ENGAGE_5	ON	ENGAGE_3	21.351	0.304	0.304	0.295
ENGAGE_5	ON	ENGAGE_4	78.549	0.575	0.575	0.553
ENGAGE_5	ON	ENGAGE_6	10.145	-0.230	-0.230	-0.193
ENGAGE_5	ON	ENGAGE_7	12.891	-0.240	-0.240	-0.197
ENGAGE_5	ON	ENGAGE_8	12.153	-0.206	-0.206	-0.188
ENGAGE_5	ON	ENGAG_11	23.312	-0.280	-0.280	-0.249
ENGAGE_6	ON	ENGAGE_4	15.648	-0.205	-0.205	-0.234
ENGAGE_6	ON	ENGAGE_5	10.145	-0.141	-0.141	-0.168
ENGAGE_6	ON	ENGAGE_7	43.930	0.353	0.353	0.346
ENGAGE_7	ON	CO_ID2	8.301	0.119	0.119	0.097
ENGAGE_7	ON	ENGAGE_5	12.891	-0.166	-0.166	-0.202

Table 29. Third CFA: Model Modification Indices (continued from previous)

ENGAGE_7 ON ENGAGE_6	43.930	0.396	0.396	0.405
ENGAGE_8 ON ENGAGE_3	13.391	-0.225	-0.225	-0.239
ENGAGE_8 ON ENGAGE_4	12.969	-0.218	-0.218	-0.230
ENGAGE_8 ON ENGAGE_5	12.153	-0.181	-0.181	-0.198
ENGAGE_8 ON ENGAGE_9	25.203	0.229	0.229	0.259
ENGAGE_8 ON ENGAG_11	23.261	0.261	0.261	0.255
ENGAGE_9 ON DPOWER2	11.811	-0.150	-0.150	-0.142
ENGAGE_9 ON DPOWER4	8.210	-0.125	-0.125	-0.122
ENGAGE_9 ON MNWORK2	8.194	-0.158	-0.158	-0.100
ENGAGE_9 ON AWSPERF2	12.381	-0.238	-0.238	-0.160
ENGAGE_9 ON AWSPERF3	14.357	-0.243	-0.243	-0.170
ENGAGE_9 ON AWSPERF6	15.710	-0.276	-0.276	-0.178
ENGAGE_9 ON AWSPERF7	9.287	-0.192	-0.192	-0.132
ENGAGE_9 ON ENGAGE_2	17.900	-0.266	-0.266	-0.219
ENGAGE_9 ON ENGAGE_3	15.985	-0.290	-0.290	-0.273
ENGAGE_9 ON ENGAGE_4	13.435	-0.262	-0.262	-0.244
ENGAGE_9 ON ENGAGE_8	25.203	0.327	0.327	0.289
ENGAGE_9 ON ENGAG_10	138.241	0.607	0.607	0.595
ENGAG_10 ON DPOWER4	9.218	-0.136	-0.136	-0.136
ENGAG_10 ON ENGAGE_3	20.459	-0.337	-0.337	-0.323
ENGAG_10 ON ENGAGE_4	41.229	-0.472	-0.472	-0.448
ENGAG_10 ON ENGAGE_9	138.241	0.653	0.653	0.666
ENGAG_10 ON ENGAG_11	30.647	0.364	0.364	0.321
ENGAG_11 ON CO_ID3	10.816	0.161	0.161	0.116
ENGAG_11 ON ENGAGE_3	11.038	-0.205	-0.205	-0.223
ENGAG_11 ON ENGAGE_4	17.462	-0.254	-0.254	-0.274
ENGAG_11 ON ENGAGE_5	23.312	-0.252	-0.252	-0.283
ENGAG_11 ON ENGAGE_8	23.261	0.267	0.267	0.273
ENGAG_11 ON ENGAG_10	30.646	0.243	0.243	0.276

Table 29. Third CFA: Model Modification Indices (continued from previous)

WITH Statements				
DPOWER1	WITH B_ATTACH	9.850	-0.121	-0.089	-0.110
DPOWER3	WITH B_ATTACH	27.016	0.218	0.160	0.182
DPOWER3	WITH DPOWER1	13.553	-0.215	-0.215	-0.301
MNWORK2	WITH DPOWER2	9.018	0.102	0.102	0.176
MNWORK2	WITH DPOWER4	9.869	-0.096	-0.096	-0.198
MNWORK2	WITH MNWORK1	10.056	0.089	0.089	0.187
AWSPERF1	WITH DPOWER1	9.862	0.115	0.115	0.184
AWSPERF1	WITH MNWORK1	9.308	0.097	0.097	0.166
AWSPERF1	WITH MNWORK4	20.489	-0.118	-0.118	-0.255
AWSPERF2	WITH MNWORK4	15.331	-0.080	-0.080	-0.232
AWSPERF4	WITH DECPOWER	8.903	-0.123	-0.075	-0.120
AWSPERF5	WITH AWSPERF2	8.997	-0.074	-0.074	-0.182
AWSPERF5	WITH AWSPERF4	16.137	0.104	0.104	0.239
AWSPERF7	WITH AWSPERF6	18.800	0.105	0.105	0.255
CO_ID1	WITH MNWORK1	10.004	0.100	0.100	0.183
CO_ID1	WITH AWSPERF1	12.853	0.114	0.114	0.204
CO_ID2	WITH AWSPERF2	11.994	0.081	0.081	0.207
CO_ID2	WITH CO_ID1	22.039	0.155	0.155	0.319
CO_ID5	WITH MNWORK2	9.960	-0.076	-0.076	-0.185
CO_ID5	WITH MWORK6	8.628	0.067	0.067	0.174
CO_ID5	WITH CO_ID1	22.495	-0.149	-0.149	-0.314
CO_ID5	WITH CO_ID3	8.063	0.079	0.079	0.186
CO_ID5	WITH CO_ID4	14.760	0.126	0.126	0.239
ATTACH2	WITH MNWORK2	10.091	0.089	0.089	0.191
ATTACH2	WITH AWSPERF2	9.970	0.082	0.082	0.191
ATTACH5	WITH B_ATTACH	28.810	-0.226	-0.166	-0.218
ATTACH5	WITH AWS_PERF	8.277	0.078	0.073	0.096
ATTACH7	WITH AWSPERF2	8.726	-0.079	-0.079	-0.183
ATTACH7	WITH AWSPERF5	10.164	0.100	0.100	0.192
ENGAGE_2	WITH ENGAGEMT	8.554	-0.136	-0.115	-0.108
ENGAGE_3	WITH AWSPERF1	9.147	0.125	0.125	0.167
ENGAGE_4	WITH COMP__ID	13.190	-0.147	-0.129	-0.132
ENGAGE_4	WITH CO_ID3	9.379	-0.113	-0.113	-0.178
ENGAGE_4	WITH ENGAGE_3	109.773	0.578	0.578	0.614
ENGAGE_5	WITH ENGAGE_3	21.351	0.284	0.284	0.264
ENGAGE_5	WITH ENGAGE_4	78.549	0.546	0.546	0.504
ENGAGE_6	WITH ENGAGE_4	15.648	-0.194	-0.194	-0.229
ENGAGE_6	WITH ENGAGE_5	10.145	-0.174	-0.174	-0.180
ENGAGE_7	WITH ENGAGE_5	12.891	-0.204	-0.204	-0.199
ENGAGE_7	WITH ENGAGE_6	43.930	0.300	0.300	0.374
ENGAGE_8	WITH ENGAGE_3	13.391	-0.209	-0.209	-0.208
ENGAGE_8	WITH ENGAGE_4	12.970	-0.207	-0.207	-0.204
ENGAGE_8	WITH ENGAGE_5	12.153	-0.224	-0.224	-0.193
ENGAGE_9	WITH ENGAGE_2	17.900	-0.301	-0.301	-0.227
ENGAGE_9	WITH ENGAGE_3	15.986	-0.270	-0.270	-0.225
ENGAGE_9	WITH ENGAGE_4	13.435	-0.249	-0.249	-0.205
ENGAGE_9	WITH ENGAGE_8	25.203	0.355	0.355	0.274
ENGAG_10	WITH AWSPERF4	8.345	0.128	0.128	0.160
ENGAG_10	WITH ENGAGE_3	20.459	-0.314	-0.314	-0.252
ENGAG_10	WITH ENGAGE_4	41.229	-0.448	-0.448	-0.356
ENGAG_10	WITH ENGAGE_9	138.241	1.014	1.014	0.630
ENGAG_11	WITH ENGAGE_3	11.038	-0.191	-0.191	-0.187
ENGAG_11	WITH ENGAGE_4	17.462	-0.241	-0.241	-0.235
ENGAG_11	WITH ENGAGE_5	23.312	-0.311	-0.311	-0.266
ENGAG_11	WITH ENGAGE_8	23.261	0.290	0.290	0.264
ENGAG_11	WITH ENGAG_10	30.647	0.405	0.405	0.297

Final CFA Model Code

```
TITLE: CFA ALLv2
DATA: FILE = C:\Users\amyfe.THEBOT\Desktop\Dissert\FinalDisser\Model\latent1.csv ;
TYPE IS INDIVIDUAL ;
NGROUPS = 1 ;
NOBS = 406 ;
VARIABLE:  NAMES ARE ID_NUMBR  UseCloud  DecCloud  Gender  Age  EDUC  YrsComp  YrsPost
           YrsCloud
           AWSUse  DPower1  DPower2  DPower3  DPower4  AvgDPow  MnWork1  MnWork2
           MnWork3  MnWork4  MnWork5  MWork6  MnWorkAL  AWSPerf1  AWSPerf2  AWSPerf3
           AWSPerf4  AWSPerf5  AWSPerf6  AWSPerf7  AWSPerAL  CO_ID1  CO_ID2
           CO_ID3  CO_ID4  CO_ID5  CO_Idall  WorkCen1  WorkCen2  WorkCen3  WorkCen4
           WorkCen5  WorCenAL  Attach1  Attach2  Attach3  Attach4  Attach5  Attach6
           Attach7  AWSAttAL  AWS_ID  AWS_Sat  Invol1  Invol2  Invol3  Invol4  Invol5
           Invol6  Invol7  Invol8  InvolAL  Engage_1  Engage_2  Engage_3  Engage_4
           Engage_5  Engage_6  Engage_7  Engage_8  Engage_9  Engag_10  Engag_11
           EngageAL  RecoAWS  ManiCH_1  ManiCH_2 ;
USEVARIABLES ARE DPower1  DPower2  DPower3  DPower4  MnWork1  MnWork2
           MnWork3  MnWork4  MnWork5  MWork6  AWSPerf1  AWSPerf2  AWSPerf3
           AWSPerf4  AWSPerf5  AWSPerf6  AWSPerf7 CO_ID1  CO_ID2
           CO_ID3  CO_ID4  CO_ID5  Attach2
           Attach5  Attach6 Attach7 Engage_2  Engage_3  Engage_4
           Engage_5  Engage_6  Engage_7  Engage_8  Engage_9  Engag_10  Engag_11 ;
MISSING ARE ALL (-999) ;
ANALYSIS: TYPE IS GENERAL ;
MODEL :
  MEANINGW BY MnWork1 MnWork2  MnWork3  MnWork4 MnWork5 MWork6 ;
  B_ATTACH BY Attach2 Attach5 Attach6 Attach7 ;
  AWS_PERF BY AWSPerf1 AWSPerf2 AWSPerf3 AWSPerf4 AWSPerf5 AWSPerf6 AWSPerf7 ;
  DECPOWER BY DPower1 DPower2 DPower3 DPower4 ;
  COMP__ID BY CO_ID1 CO_ID2 CO_ID3 CO_ID4 CO_ID5 ;
  ENGAGEMT BY Engage_2 Engage_3 Engage_4 Engage_5 Engage_6
              Engage_7 Engage_8 Engage_9 Engag_10 Engag_11 ;
  ENGAGE_4 WITH ENGAGE_3 ;
  ENGAG_10 WITH ENGAGE_9 ;
  ENGAGE_5 WITH ENGAGE_4 ;



OUTPUT:
 SAMPSTAT MODINDICES(ALL,8.0) RESIDUAL STDYX TECH4;
```

Table 30. Final CFA Model Fit Indices

```
MODEL FIT INFORMATION

Number of Free Parameters                       126

Loglikelihood

          H0 Value                      -19664.726
          H1 Value                      -19037.264

Information Criteria

          Akaike (AIC)                   39581.452
          Bayesian (BIC)                 40086.253
          Sample-Size Adjusted BIC       39686.437
            (n* = (n + 2) / 24)

Chi-Square Test of Model Fit

          Value                           1254.925
          Degrees of Freedom                   576
          P-Value                           0.0000

RMSEA (Root Mean Square Error Of Approximation)

          Estimate                           0.054
          90 Percent C.I.                    0.050  0.058
          Probability RMSEA <= .05           0.058

CFI/TLI

          CFI                                0.952
          TLI                                0.948

Chi-Square Test of Model Fit for the Baseline Model

          Value                          14791.905
          Degrees of Freedom                   630
          P-Value                           0.0000

SRMR (Standardized Root Mean Square Residual)

          Value                              0.037
```

APPENDIX E: Means for Dependent Variables, Variable Statistics and Correlations

Table 31. Means for Dependent Variables by Condition (Standard Error)

	Brand Attachment	Engagement Behaviors
Request for Feedback to Improve Product	4.7946 (0.14021)	4.56 (0.143)
Request for Feedback to Provide Peer Support	4.9433 (0.13583)	4.86 (0.142)
Request for Feedback on Using AWS on the Job	4.9675 (0.14727)	4.75 (0.144)
Request for Feedback on Job Challenges	4.9717 (0.13993)	4.57 (0.137)

Table 32. Descriptive Statistics for Latent Variables

	Mean	Std Deviation
Meaning of Work	5.894	1.081
AWS Brand Performance	5.303	1.171
Decision Making Power	4.999	1.748
Company Identification	5.77	1.201
AWS Brand Attachment	4.919	1.411
Engagement	4.680	1.422

Table 33. Pearson Correlations for Latent Variables

	Meaning of Work	AWS Perfor-mance	Decision-making Power	Company Identification	Brand Attachment	Engagement Behaviors
Meaning of Work	1					
AWS Performance	0.473	1				
Decision-making Power	0.384	0.637	1			
Company Identification	0.630	.0429	0.357	1		
Brand Attachment	0.418	0.728	0.571	0.315	1	
Engagement Behaviors	0.310	0.696	0.614	0.284	0.759	1

APPENDIX F: Relevant Outputs from Mplus for the Post-Hoc SEM

Post-Hoc SEM Input Code

```
TITLE: SEM
DATA: FILE = C:\Users\amyfe.THEBOT\Desktop\Dissert\FinalDisser\Model\latent1.csv ;
TYPE IS INDIVIDUAL ;
NGROUPS = 1 ;
NOBS = 406 ;
VARIABLE:  NAMES ARE ID_NUMBR  UseCloud  DecCloud  Gender  Age  EDUC  YrsComp  YrsPost
           YrsCloud
           AWSUse  DPower1  DPower2  DPower3  DPower4  AvgDPow  MnWork1  MnWork2
           MnWork3  MnWork4  MnWork5  MWork6  MnWorkAL  AWSPerf1  AWSPerf2  AWSPerf3
           AWSPerf4  AWSPerf5  AWSPerf6  AWSPerf7  AWSPerAL  CO_ID1  CO_ID2
           CO_ID3  CO_ID4  CO_ID5  CO_Idall  WorkCen1  WorkCen2  WorkCen3  WorkCen4
           WorkCen5  WorCenAL  Attach1  Attach2  Attach3  Attach4  Attach5  Attach6
           Attach7  AWSAttAL  AWS_ID  AWS_Sat  Invol1  Invol2  Invol3  Invol4  Invol5
           Invol6  Invol7  Invol8  InvolAL  Engage_1  Engage_2  Engage_3  Engage_4
           Engage_5  Engage_6  Engage_7  Engage_8  Engage_9  Engag_10  Engag_11
           EngageAL  RecoAWS  ManiCH_1  ManiCH_2 ;
USEVARIABLES ARE DPower1  DPower2  DPower3  DPower4  MnWork1  MnWork2
           MnWork3  MnWork4  MnWork5  MWork6  AWSPerf1  AWSPerf2  AWSPerf3
           AWSPerf4  AWSPerf5  AWSPerf6  AWSPerf7  Attach2
           Attach5  Attach6 Attach7 Engage_2  Engage_3  Engage_4
           Engage_5  Engage_6  Engage_7  Engage_8  Engage_9  Engag_10  Engag_11 ;
MISSING ARE ALL (-999) ;
ANALYSIS:
     TYPE IS GENERAL ;
MODEL :
  MEANINGW BY MnWork1 MnWork2  MnWork3  MnWork4 MnWork5 MWork6 ;
  B_ATTACH BY Attach2 Attach5 Attach6 Attach7 ;
  AWS_PERF BY AWSPerf1 AWSPerf2 AWSPerf3 AWSPerf4 AWSPerf5 AWSPerf6 AWSPerf7 ;
  DECPOWER BY DPower1 DPower2 DPower3 DPower4 ;
  ENGAGEMT BY Engage_2 Engage_3 Engage_4 Engage_5 Engage_6
              Engage_7 Engage_8 Engage_9 Engag_10 Engag_11 ;
  ENGAGE_4 WITH ENGAGE_3 ;
  ENGAG_10 WITH ENGAGE_9 ;
  ENGAGE_5 WITH ENGAGE_4 ;
  ENGAGE_5 WITH ENGAGE_3 ;
  ENGAGE_7 WITH ENGAGE_6 ;
  ENGAGE_9 WITH ENGAGE_5 ;
  ENGAGE_9 WITH ENGAGE_8 ;
  ENGAG_11 WITH ENGAGE_8 ;
  ENGAG_11 WITH ENGAG_10 ;
  DPOWER3  WITH DPOWER1 ;
  MNWORK2  WITH MNWORK1 ;
  AWSPERF5 WITH AWSPERF4 ;
  AWSPERF7 WITH AWSPERF6 ;


    AWS_PERF on MEANINGW ;
    AWS_PERF on DECPOWER ;
    B_ATTACH ON AWS_PERF ;
    B_ATTACH ON DECPOWER ;
    ENGAGEMT ON AWS_PERF ;
    ENGAGEMT ON B_ATTACH ;

MODEL INDIRECT:
  ENGAGEMT ind MEANINGW ;
  ENGAGEMT ind AWS_PERF ;
  B_ATTACH IND MEANINGW ;


OUTPUT:
 SAMPSTAT MODINDICES(ALL,10.0) RESIDUAL STDYX TECH4;
```

Table 34. Post-Hoc SEM Model Fit Indices

MODEL FIT INFORMATION

Number of Free Parameters	113	
Loglikelihood		
H0 Value	-17085.547	
H1 Value	-16699.085	
Information Criteria		
Akaike (AIC)	34397.094	
Bayesian (BIC)	34849.812	
Sample-Size Adjusted BIC (n* = (n + 2) / 24)	34491.247	
Chi-Square Test of Model Fit		
Value	772.925	
Degrees of Freedom	414	
P-Value	0.0000	
RMSEA (Root Mean Square Error Of Approximation)		
Estimate	0.046	
90 Percent C.I.	0.041	0.051
Probability RMSEA <= .05	0.891	
CFI/TLI		
CFI	0.971	
TLI	0.967	
Chi-Square Test of Model Fit for the Baseline Model		
Value	12766.391	
Degrees of Freedom	465	
P-Value	0.0000	
SRMR (Standardized Root Mean Square Residual)		
Value	0.040	

Table 35. Post-Hoc SEM Unstandardized Coefficients

MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
MEANINGW BY				
MNWORK1	1.000	0.000	999.000	999.000
MNWORK2	1.032	0.048	21.434	0.000
MNWORK3	1.060	0.054	19.711	0.000
MNWORK4	1.051	0.053	19.906	0.000
MNWORK5	1.059	0.054	19.792	0.000
MWORK6	1.047	0.052	20.026	0.000
B_ATTACH BY				
ATTACH2	1.000	0.000	999.000	999.000
ATTACH5	0.881	0.038	22.900	0.000
ATTACH6	1.032	0.040	25.563	0.000
ATTACH7	1.078	0.042	25.628	0.000
AWS_PERF BY				
AWSPERF1	1.000	0.000	999.000	999.000
AWSPERF2	1.098	0.049	22.464	0.000
AWSPERF3	1.132	0.051	22.009	0.000
AWSPERF4	1.099	0.051	21.486	0.000
AWSPERF5	1.094	0.053	20.544	0.000
AWSPERF6	1.025	0.048	21.489	0.000
AWSPERF7	1.044	0.052	19.923	0.000
DECPOWER BY				
DPOWER1	1.000	0.000	999.000	999.000
DPOWER2	0.932	0.037	25.351	0.000
DPOWER3	1.102	0.041	26.689	0.000
DPOWER4	1.013	0.036	28.263	0.000
ENGAGEMT BY				
ENGAGE_2	1.000	0.000	999.000	999.000
ENGAGE_3	1.228	0.072	17.120	0.000
ENGAGE_4	1.186	0.072	16.557	0.000
ENGAGE_5	1.171	0.075	15.619	0.000
ENGAGE_6	1.099	0.063	17.570	0.000
ENGAGE_7	1.029	0.062	16.687	0.000
ENGAGE_8	1.121	0.069	16.257	0.000
ENGAGE_9	1.179	0.078	15.115	0.000
ENGAG_10	1.127	0.077	14.650	0.000
ENGAG_11	1.080	0.067	16.034	0.000
AWS_PERF ON				
MEANINGW	0.287	0.047	6.144	0.000
DECPOWER	0.357	0.030	11.733	0.000
B_ATTACH ON				
AWS_PERF	0.823	0.073	11.310	0.000
DECPOWER	0.151	0.041	3.726	0.000
ENGAGEMT ON				
AWS_PERF	0.366	0.067	5.498	0.000
B_ATTACH	0.501	0.056	9.001	0.000

Table 36. Post-Hoc SEM Standardized Coefficients

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
MEANINGW BY				
MNWORK1	0.786	0.021	37.495	0.000
MNWORK2	0.847	0.016	52.648	0.000
MNWORK3	0.862	0.015	58.428	0.000
MNWORK4	0.872	0.014	62.696	0.000
MNWORK5	0.869	0.014	61.128	0.000
MWORK6	0.877	0.014	64.649	0.000
B_ATTACH BY				
ATTACH2	0.878	0.014	64.945	0.000
ATTACH5	0.845	0.016	51.708	0.000
ATTACH6	0.889	0.013	69.909	0.000
ATTACH7	0.890	0.013	70.752	0.000
AWS_PERF BY				
AWSPERF1	0.810	0.018	44.146	0.000
AWSPERF2	0.901	0.011	82.366	0.000
AWSPERF3	0.889	0.012	74.693	0.000
AWSPERF4	0.877	0.013	67.290	0.000
AWSPERF5	0.849	0.015	55.043	0.000
AWSPERF6	0.876	0.013	67.118	0.000
AWSPERF7	0.834	0.017	50.346	0.000
DECPOWER BY				
DPOWER1	0.916	0.012	77.346	0.000
DPOWER2	0.859	0.015	58.867	0.000
DPOWER3	0.922	0.012	80.006	0.000
DPOWER4	0.902	0.011	79.133	0.000
ENGAGEMT BY				
ENGAGE_2	0.753	0.024	31.739	0.000
ENGAGE_3	0.813	0.019	41.784	0.000
ENGAGE_4	0.793	0.021	37.711	0.000
ENGAGE_5	0.755	0.024	32.090	0.000
ENGAGE_6	0.842	0.017	48.886	0.000
ENGAGE_7	0.805	0.020	39.933	0.000
ENGAGE_8	0.791	0.021	37.716	0.000
ENGAGE_9	0.743	0.024	31.172	0.000
ENGAG_10	0.719	0.026	27.793	0.000
ENGAG_11	0.780	0.022	35.713	0.000
AWS_PERF ON				
MEANINGW	0.271	0.041	6.597	0.000
DECPOWER	0.565	0.036	15.535	0.000
B_ATTACH ON				
AWS_PERF	0.643	0.044	14.465	0.000
DECPOWER	0.187	0.050	3.773	0.000
ENGAGEMT ON				
AWS_PERF	0.324	0.055	5.875	0.000
B_ATTACH	0.569	0.053	10.636	0.000

Table 37. Post-Hoc SEM R-Square

R-SQUARE

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
DPOWER1	0.839	0.022	38.673	0.000
DPOWER2	0.738	0.025	29.434	0.000
DPOWER3	0.850	0.021	40.003	0.000
DPOWER4	0.814	0.021	39.567	0.000
MNWORK1	0.618	0.033	18.748	0.000
MNWORK2	0.718	0.027	26.324	0.000
MNWORK3	0.743	0.025	29.214	0.000
MNWORK4	0.761	0.024	31.348	0.000
MNWORK5	0.755	0.025	30.564	0.000
MWORK6	0.769	0.024	32.324	0.000
AWSPERF1	0.656	0.030	22.073	0.000
AWSPERF2	0.811	0.020	41.183	0.000
AWSPERF3	0.790	0.021	37.346	0.000
AWSPERF4	0.769	0.023	33.645	0.000
AWSPERF5	0.721	0.026	27.522	0.000
AWSPERF6	0.768	0.023	33.559	0.000
AWSPERF7	0.696	0.028	25.173	0.000
ATTACH2	0.771	0.024	32.472	0.000
ATTACH5	0.714	0.028	25.854	0.000
ATTACH6	0.790	0.023	34.955	0.000
ATTACH7	0.793	0.022	35.376	0.000
ENGAGE_2	0.568	0.036	15.869	0.000
ENGAGE_3	0.660	0.032	20.892	0.000
ENGAGE_4	0.628	0.033	18.855	0.000
ENGAGE_5	0.570	0.036	16.045	0.000
ENGAGE_6	0.709	0.029	24.443	0.000
ENGAGE_7	0.649	0.032	19.967	0.000
ENGAGE_8	0.625	0.033	18.858	0.000
ENGAGE_9	0.552	0.035	15.586	0.000
ENGAG_10	0.517	0.037	13.897	0.000
ENGAG_11	0.608	0.034	17.856	0.000

Latent Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
B_ATTACH	0.609	0.035	17.317	0.000
AWS_PERF	0.513	0.038	13.509	0.000
ENGAGEMT	0.712	0.030	23.498	0.000

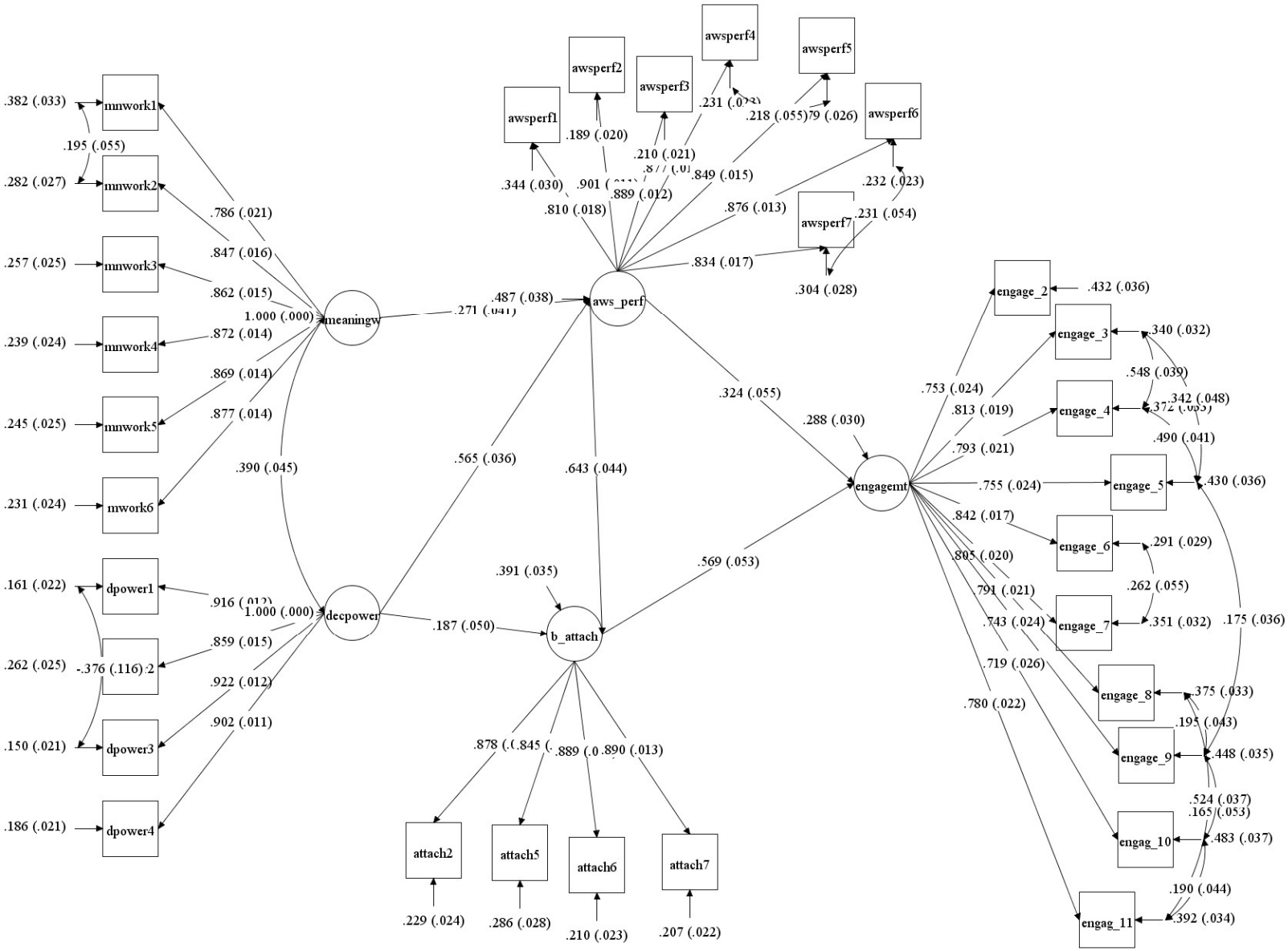
Table 38. Post-Hoc SEM Mediation Effects

STANDARDIZED TOTAL, TOTAL INDIRECT, SPECIFIC INDIRECT, AND DIRECT EFFECTS

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Effects from MEANINGW to ENGAGEMT				
Total	0.187	0.030	6.217	0.000
Total indirect	0.187	0.030	6.217	0.000
Specific indirect				
ENGAGEMT AWS_PERF MEANINGW	0.088	0.020	4.410	0.000
ENGAGEMT B_ATTACH AWS_PERF MEANINGW	0.099	0.019	5.185	0.000
Effects from AWS_PERF to ENGAGEMT				
Total	0.690	0.035	19.579	0.000
Total indirect	0.365	0.042	8.700	0.000
Specific indirect				
ENGAGEMT B_ATTACH AWS_PERF	0.365	0.042	8.700	0.000
Direct				
ENGAGEMT AWS_PERF	0.324	0.055	5.875	0.000
Effects from MEANINGW to B_ATTACH				
Total	0.174	0.029	5.924	0.000
Total indirect	0.174	0.029	5.924	0.000
Specific indirect				
B_ATTACH AWS_PERF MEANINGW	0.174	0.029	5.924	0.000

Figure 28: Post-Hoc Structural Equation Model Diagram, Standardized Coefficients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