

**THE ROLES OF KNOWLEDGE AND ORGANIZATIONAL FORM ON
OPPORTUNITY EVALUATION**

Shaun P. Digan

University of Louisville
Shaun.digan@mail.com

Sharon Kerrick

Bellarmine University
skerrick@bellarmine.edu

Denise M. Cumberland

University of Louisville
Denise.cumberland@louisville.edu

Robert Garrett

University of Louisville
Robert.garrett@louisville.edu

ABSTRACT

What influences an individual to pursue one type of entrepreneurial opportunity versus another? Knowledge is central to the concept of opportunity identification, evaluation, and exploitation. Using conjoint analysis to capture underlying decision policies, we explore the roles of both knowledge and organizational form in the evaluation of entrepreneurial opportunities. Our findings suggest that, among respondents who considered pursuing a franchised venture a viable alternative to founding an independent venture, franchise versus independent form alone did not play a specific and significant role in the evaluation of the attractiveness of entrepreneurial opportunities. Rather, organizational form appears to influence the impact of both human capital relatedness and the inimitability of resource attributes on opportunity attractiveness.

Key Words: opportunity evaluation, knowledge, organizational form, franchising

INTRODUCTION

At the heart of entrepreneurship research lies the central question of “how, by whom, and with what consequences opportunities to produce future goods and services are discovered, evaluated, and exploited” (Shane & Venkataraman, 2000, p. 218). While the discovery and exploitation of opportunities have received much debate throughout the entrepreneurship and strategy literatures, until recently questions related to how entrepreneurs evaluate opportunities have received considerably less attention (Haynie, Shepherd, & McMullen, 2009; Wood & Williams, 2014). In order to understand why individuals choose one type of entrepreneurial opportunity versus another, it is crucial to understand how they evaluate the attractiveness of an opportunity. Within the emerging research on opportunity evaluation, knowledge has been identified as a critical factor in how entrepreneurs evaluate opportunities (Haynie et al., 2009). However, many new ventures are established by entrepreneurial teams or within networks, alliances, or franchise systems where an individual’s access to knowledge may mitigate a lack of personal knowledge in the evaluation and exploitation of discovered opportunities. This paper focuses on the role of knowledge in entrepreneurs evaluations of independent vs. franchised ventures.

While some empirical studies have sought to understand why individuals choose self-employment over fixed wage employment (Douglas & Shepherd, 2002; Kolvereid & Isaksen, 2006) and why franchisors pursue franchisees (Justis & Judd, 1998), there have been limited attempts at understanding what factors influence individuals to pursue a franchise opportunity versus founding an

independent venture. Over the past decade, a growing number of studies have begun focusing on how entrepreneurs evaluate the attractiveness of first-person opportunities, finding that knowledge plays a key role in opportunity evaluations (Gruber, Kim, & Brinckmann, 2015; Haynie et al., 2009; Haynie, Shepherd, & Patzelt, 2012; Wood, McKelvie, & Haynie, 2014; Wood & Williams, 2014). In general, entrepreneurs are more attracted to opportunities that are related to and complement their existing stock of knowledge (Haynie et al., 2009). Many of these studies have focused on the interrelationships between an entrepreneur’s knowledge and elements of an opportunity in evaluations of opportunity attractiveness (Haynie et al., 2009; Mitchell & Shepherd, 2010; Patzelt & Shepherd, 2009).

Although we know that knowledge plays an important role in the discovery, evaluation, and exploitation of entrepreneurial opportunities, franchised ventures are unique in that a franchisor provides a proven business plan along with much of the knowledge necessary to establish and operate the venture. Despite intense scrutiny around opportunity identification, limited investigation has been undertaken on factors which may mitigate the links between an entrepreneur’s knowledge and opportunity evaluation and exploitation. The centrality of knowledge to opportunities, limited research on the choice of organizational form, and scholars’ calls for more research to understand the relationship between an entrepreneur’s human capital and the opportunity identification and evaluation processes (Ucbasaran, Westhead, & Wright, 2008) indicate the need for further investigation. Our study advances the entrepreneurship and franchising literatures by focusing on the entrepreneur’s human

capital with respect to evaluating opportunities of independent and franchise organizational forms. Thus, the aim of our research is to attend to the following research questions: “What influences an individual to pursue one type of entrepreneurial opportunity versus another?”; and more specifically, “How does knowledge influence individuals in the evaluation of an independent vs. a franchised venture.”

This line of research offers several contributions to the current literature. First, we advance the literature on opportunity evaluation by expanding upon the question of “What influences are brought to bear on [entrepreneurs’ opportunity] evaluations” (Haynie et al., 2009, p. 338). Prior research has identified a myriad of factors that influence opportunity evaluations such as the attributes, associated risks, and uncertainty of the opportunity (Haynie et al., 2009; McKelvie, Haynie, & Gustavsson, 2011; Wood et al., 2014) as well as an entrepreneur’s knowledge (or the relatedness of the that knowledge to the exploitation of an opportunity) (Haynie et al., 2009; Wood & Williams, 2014) and access to resources (Patzelt & Shepherd, 2009). This research informs this discussion by investigating how entrepreneurs evaluate entrepreneurial opportunities by focusing on the relationship between an entrepreneur’s related knowledge and organizational form in assessments of opportunity attractiveness. Second, we contribute to the Resource Based View (RBV) literature by exploring how the entrepreneur assesses the attractiveness of pursuing an independent venture versus a franchised

organizational form. Prior scholars have suggested RBV can explain both why owners of a concept pursue franchisees (Stanworth, Stanworth, Watson, Purdy, & Healeas, 2004) as well as why franchisees may be attracted to entering a franchise relationship (Welsh, Davis, Desplaces, & Falbe, 2011) and choose between franchising and company ownership (Gillis, Combs, & Ketchen, 2014). We integrate these perspectives to assess the influence of knowledge and organizational form on entrepreneurial opportunity evaluations.

In the proceeding manuscript, we review the existing literature on opportunity evaluation, specifically through the lens of RBV. We then summarize prior findings and explain the role of the relatedness of an entrepreneur’s knowledge on opportunity evaluations. Next, we incorporate insights from the franchising literature to consider the role of organizational form on opportunity evaluations. Finally, we examine the effects of knowledge on the opportunity evaluation process. Analyzing 3328 evaluation decisions from 104 entrepreneurs, we test our hypotheses through conjoint analysis, allowing us to tease out the complex interrelationships between knowledge and elements of an entrepreneurial opportunity. We conclude with a discussion of findings, and review implications for theory, pedagogy, and practice. To guide the reader through the conceptual background and the development of the hypotheses, Figure 1, below, illustrates our conceptual model.

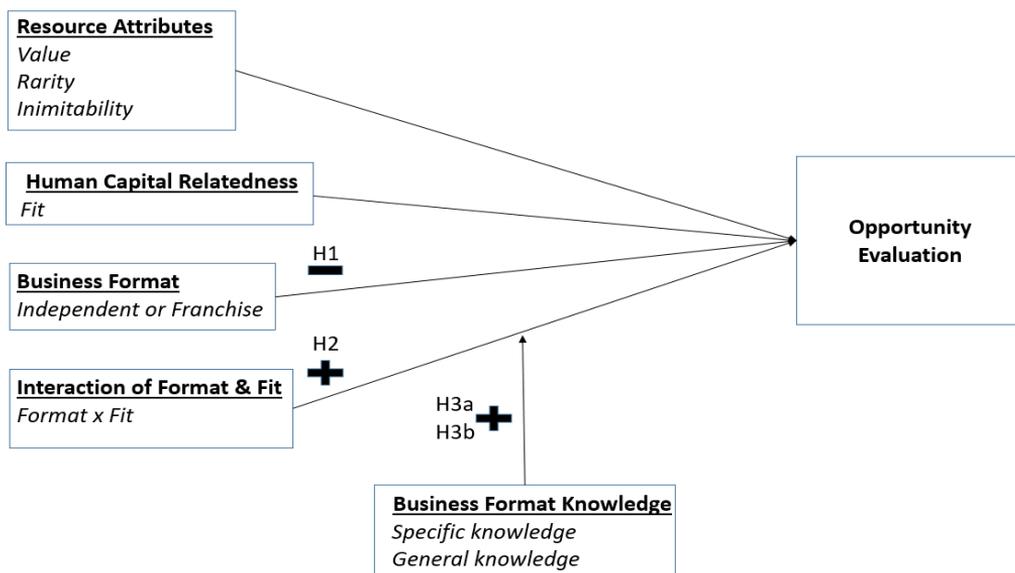


Figure 1. Conceptual model of the relationships between opportunity attributes and entrepreneurs opportunity evaluations.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Opportunity Evaluation

Baron (2006) describes opportunity recognition as pattern recognition, and one way opportunities may be assessed are by the patterns of the attributes of their resources (Baron & Ensley, 2006). Opportunities, then, can be broken down into resource specific attributes and evaluated within their patterns of resource attributes. RBV posits that opportunities are evaluated not by their current value alone, but also by inferences of their future value derived from attributes that offer competitive advantage (Barney, 1986, 1991). Following RBV, resources that may offer sustainable competitive advantage include resources that are valuable, rare, and inimitable (Barney, 1991). Specifically, valuable and rare resources produce a

competitive advantage which may only be sustained by the inimitability of those resources (Barney, 1991; Foss & Knudsen, 2003).

Human capital theory suggests that knowledge, skills, and abilities are idiosyncratic across individuals and that individuals with more or higher quality human capital perform relevant tasks at a higher level (Becker, 2009; Gibbons & Waldman, 2004). This idiosyncratic knowledge has been attributed to why some entrepreneurs choose to recognize and exploit specific opportunities while others do not (Fiet, 1996; Hayek, 1945; Shane, 2000). Following human capital literature, previous research has found a significant relationship between an entrepreneur’s human capital relevant to an opportunity and evaluation of the attractiveness of that opportunity for potential exploitation (Haynie et al., 2009; Wood et al.,

2014; Wood & Williams, 2014). Human capital is tied quite closely to RBV via experiences based on judgment, skills, and knowledge. Patterns of learning curves are based on experience and the constant elasticity learning parameter (Hatch & Dyer, 2004) thus leading to potential competitive strategic advantages for an organization. The role of human capital and RBV are intertwined by their relationship with tacit knowledge. Further, Barney (1991) notes that competitive strategy, resting on individual judgment, is integral to the RBV framework. Organizational form may be thought of as one aspect of competitive strategy. Franchising- a contract in which the owners (a franchisor) of a product, process, service, or brand license the rights to use their brand, service, process, or product (Combs & Ketchen, 2003) in exchange for either initial franchise fees, royalty fees, or some combination of the two (Justis, Chan, & Kedia, 2015). This is a popular type of organizational form with vast economic implications and unique arrangements.

Several streams of literature provide possible explanations for how an entrepreneur will assess independent vs. franchise opportunities. First, within the resource-based view of the firm, Barney (1986, 1991) suggests that entrepreneurial opportunities are accessed, in part, through inferences of their future value. In this regard, we posit that independent ventures have a lower cost structure (the absence of royalty and advertising fees) that will influence inferences of their future value. Investigating entrepreneurs' reasons for becoming a franchisee, Peterson and Dant (1990) suggest that franchisees may perceive franchises to have higher operating costs than independent ventures due, in part, to royalty fees. Initially

a franchisor's knowledge and resources may represent a competitive advantage; however, these features are not owned by the venture, but are leased by the entrepreneur at an ongoing cost. Entrepreneurs are likely to assess these ongoing franchisee costs against the value provided by the franchisor in their evaluations of the attractiveness of an opportunity (Grünhagen & Dorsch, 2003; Harmon & Griffiths, 2008). Additionally, perceptions of franchisor value are anticipated to change over time (Grünhagen & Dorsch, 2003; Watson & Stanworth, 2006). As franchisees acquire human capital through experience, the value of the franchisor's human capital is likely to decrease over time while royalty fees remain static. Therefore, in assessing opportunity attractiveness, entrepreneurs may assess the future financial value of independent businesses as more attractive than that of a franchised venture.

Additionally, research at the intersection of cognition and strategy suggesting that individual traits and characteristics including autonomy (independence) and locus of control, have clear implications on the attractiveness of entrepreneurship as a career path (Carter, Gartner, Shaver, & Gatewood, 2003; Gatewood, Shaver, & Gartner, 1995; Shane, Kolvereid, & Westhead, 1991). In fact, autonomy is one of the most often named reasons for establishing a venture or the desire to do so (Hessels, Van Gelderen, & Thurik, 2008; Pruett, Shinnar, Toney, Llopis, & Fox, 2009). While independent ventures are likely to be highly autonomous, prior research has found franchisees to vary considerably in their autonomy (Dant & Gundlach, 1999) as well as struggle to balance dependence and autonomy (Strutton, Pelton, & Lumpkin, 1995). Therefore, in assessing opportunity attractiveness, entrepreneurs may also assess

the non-financial value of independent businesses as more attractive than that of a franchised venture, ceteris paribus. Following the above logic, Hypothesis 1 is as follows:

***Hypothesis 1:** Entrepreneurs will evaluate independent ventures as more attractive than franchised ventures, all other factors being equal.*

Human Capital Relatedness and Organizational Form

Opportunity evaluation decisions are complex phenomena influenced by a number of factors. As previously discussed, human capital relatedness, or fit, has been theorized to be a strong predictor of opportunity attention and evaluation (Fiet, 1996; Shane, 2000). Fit has also been found to be associated with the emphasis entrepreneurs' place on the value, rarity, and limits to competition of an opportunity (Haynie et al., 2009) as well as the influence of the number of potential opportunities and the window of availability of these opportunities (Mitchell & Shepherd, 2010).

Although some scholars have theorized that the fit between the knowledge of an entrepreneur and an opportunity are imperative to discovery (Fiet, 2007), the transfer of knowledge has been shown to be a crucial way for individuals and organizations to create and share knowledge (Grant 1996; Yong & Young-Ryeol 2004). This often results in competitive advantages (Desouza & Evaristo, 2003; Penrose, 1959). Following this logic, there may be some situations in which the relatedness of an individual entrepreneur's human capital is of less importance than the specific knowledge at the venture level.

One of the perceived benefits of joining a franchise system is a codified set of procedures, processes, rules, and instructions to provide the means for franchisee success. The underlying competitive advantage offered by franchisors is the perfection of this set of procedures and processes from the specific knowledge they have gained from their experience (Paswan & Wittmann, 2009). Franchisees are essentially purchasing the partnership and access to the specific knowledge the franchisor brings to the table as a partner. Lending credence to this reasoning, scholars have found that franchisees and prospective franchisees perceive business "support" (Kaufmann & Stanworth, 1995) and training (Peterson & Dant, 1990) to be key characteristics in assessing franchise systems.

Following the logic provided above, we theorize that entrepreneurs' willingness to bear the costs associated with franchised organizational forms will depend upon whether the entrepreneur already possesses specific human capital relevant to an opportunity. In other words, we posit that when an entrepreneur's prior knowledge is unrelated to an opportunity, they are likely to ascribe higher values to franchised opportunities than independent ventures. The inverse of this relationship would then also hold true. When an entrepreneur's prior knowledge is highly related to an opportunity they are likely to ascribe higher values to independent organizational forms, as compared with franchised ventures. Hypothesis 2 is summarized below:

***Hypothesis 2:** Entrepreneurs with knowledge, skills, and abilities which are highly related to an opportunity will evaluate independent ventures as more attractive than franchised*

ventures; however, when these knowledge, skills, and abilities are unrelated, the entrepreneur will evaluate franchised ventures as more attractive than independent ventures.

Knowledge of Organizational Forms and Opportunity Evaluation

Individuals acquire knowledge from their prior experience (Hayek, 1945). This knowledge is an accumulation of understandings from an individual's occupation, hobbies, technological know-how, and social relations (Venkataraman, 1997). An individual's knowledge may be specific or general. Specific knowledge is the decryption of personal experiences with people, places, timing, special circumstances, and technology (Fiet & Samuelsson 2000; Hayek 1945), is costly to attain, and is not easily transferrable. General knowledge, on the other hand, is information that can be formalized into practices and procedures, typically comes with low costs of acquisition (Stiglitz, 1985), and can be easily transferred to others (Jensen & Meckling, 1992). Special circumstances are one of the distinctive subsets of specific knowledge, one of which can be franchising business strategies. Franchising is a unique arrangement with its own set of special circumstances related to practices and operating procedures (Bates, 1995).

Because we know that prior experience is one of the major sources of specific knowledge (Fiet, 1996; Shane, 2000, 2003), we posit that there are several ways in which an individual may acquire specific knowledge of organizational forms including work and ownership of a franchised venture. Just as we hypothesized that the relatedness of an

entrepreneur's specific human capital was positively related to opportunity attractiveness, we carry that logic to hypothesize that entrepreneurs' specific knowledge of franchises is positively related to the evaluation of franchise opportunities and will increase the emphasis entrepreneurs place on an appropriate match between form and fit.

Fiet (2007) suggests that general knowledge could also provide an individual a clue that a specific opportunity could exist. Although specific knowledge is typically acquired through personal experience, general knowledge can be acquired through books, the Internet, or educational courses, including college courses and formal education. Because general knowledge of organizational forms is particularly relevant to the influence of a match or mismatch between an opportunity and the entrepreneur, we hypothesize that general knowledge of organizational forms will accentuate the importance of an appropriate match between form and fit. Thus, we hypothesize 3a and 3b as follows:

***Hypothesis 3a:** Entrepreneurs with specific knowledge of franchise organizational forms will place greater emphasis on the match between form and fit than entrepreneurs without specific knowledge of franchise forms.*

***Hypothesis 3b:** Entrepreneurs with general knowledge of franchise organizational forms will place greater emphasis on the match between form and fit than entrepreneurs without general knowledge of franchise forms.*

RESEARCH METHODS

This research utilizes conjoint analysis (CA) to explore the decision policies of entrepreneurs performing opportunity evaluations. CA requires participants to make a series of assessments based on a set of profiles, in this case profiles of potential new venture opportunities. The profiles consist of combinations of attributes that could be observed by an entrepreneur and used to evaluate entrepreneurial opportunities. Following metric conjoint analysis, the attributes in this experiment are presented at one of two distinct levels, either high or low (Priem & Harrison, 1994). From these judgments, it is possible to break down decision processes to examine the captured preferences of their underlying structures (Shepherd & Zacharakis 1997). Because we hypothesize that the perception of opportunities is directly related to knowledge, and that perceptions will vary across groups of participants with different sets of knowledge, CA is a pertinent method to investigate these perceptions through the microanalysis of the underlying structure of decision patterns.

Conjoint analysis has been carried out thousands of times (Green, Krieger, & Wind, 2001) and has been shown superior to relying on introspection to determine perceptions (Fischhoff, 1982; Priem & Harrison, 1994). CA has shown to be an effective predictor of decision policies as they are used by individuals in real life decisions (Brown, 1972; Hammond & Adelman, 1977). In addition to prior use in entrepreneurial opportunity evaluation (Haynie et al., 2009; Mitchell & Shepherd, 2010; Shepherd & Zacharakis, 2003), CA has also been used to investigate opportunity evaluation in venture capitalists (Shepherd, Zacharakis, & Baron,

2003; Shepherd & Zacharakis 1999; Shepherd 1999) as well as strategic decision making (Priem & Harrison, 1994) and corporate venture evaluations (Desarbo, Macmillan, & Day, 1987). Conjoint analysis provides an in-depth analysis into the decision criteria involved in the evaluation of entrepreneurial opportunities.

Sample and Instrument

The primary sample for this study consists of entrepreneurs and nascent entrepreneurs drawn from Amazon's Mechanical Turk (MTurk). MTurk is an online marketplace for work on "human intelligence tasks" or HITs, a source of eLancing suggested as a potentially useful approach to carrying out entrepreneurial experiments (Aguinis & Lawal, 2012). According to Huff and Tingley (2015), MTurk participants report occupational similarities in proportion with the U.S. population, and business owners, independent contractors, and owner operators comprised 13.37% of the respondents in their MTurk sample (Huff & Tingley, 2015). Data were collected from MTurk in the spring of 2014.

Data collected from MTurk, one of several online marketplaces for HITs, has been suggested to be reliable and more representative of the nonstudent population than prevalent student, internet, and traditional samples (Buhrmester, Kwang, & Gosling, 2011; Horton, Rand, & Zeckhauser, 2011) representing a reliable and diverse subject pool (e.g. Berinsky, Huber, & Lenz, 2012; Krupnikov & Levine, 2014; Mason & Suri, 2012; Paolacci & Chandler, 2014; Paolacci, Chandler, & Ipeirotis, 2010).

Screening questions were employed to determine if participants were entrepreneurs or nascent entrepreneurs following the screening questions employed in PSEDI and PSEDI (Reynolds, 2007, 2011). Additionally, because conjoint analysis assumes a compensatory (vs. noncompensatory) decision process, it is important to consider weaknesses which might serve as “knock-out” criteria (Franke, Gruber, Harhoff, & Henkel, 2008; Lohrke, Holloway, & Woolley, 2010). Because there is some debate whether franchising is entrepreneurship, we screened for participants that indicated that they considered opening a franchise a viable alternative to opening an independent venture. One-hundred and fifty-three responses were collected, however examination of the IP addresses of participants revealed that three entrepreneurs (6 response sets total) had participated in both versions of our survey. To preserve the assumptions of independence of our data, these 6 response sets were dropped. Of the 147 entrepreneurs who passed the screening questions, 79 percent (n=116) considered opening a franchised venture to be a viable alternative to an independent venture, indicating that our sample represented entrepreneurs qualified to participate in the experiment.

To determine the decision policies in the evaluation of new venture opportunities, participants were asked to rate a series of hypothetical profiles representing opportunities that might be found in the real world. Opportunities were described in combinations of resource attributes identified in resource-based theories of the firm: perceived value, rarity, inimitability, and human capital (fit), in addition to the distinction of being an independent or franchised venture. The experimental task was

carried out in two parts. First, participants were provided instructions and told to assume that (1) they are searching for opportunities for investment as their next entrepreneurial venture, and (2) the factors presented were the only factors that differentiated these opportunities. They were then provided descriptions of the attributes and their levels, and encouraged to print or save these terms to refer to during the experimental task. After completing a practice profile, participants were returned to the descriptions of attribute levels once more before beginning the experimental task.

The total number of possible opportunity profiles within the constraints of the attributes and design of this experiment is 32 (2^5). However, in order to examine internal reliability and order effects, the 32 possible profile combinations would have to be at least partially replicated. To reduce the demands and cognitive load on participants (Green & Srinivasan 1990), we employed a partial profile conjoint experiment reducing the number of profiles to 16 orthogonally arranged profiles, sufficient to capture both main and interaction effects (Hahn & Shapiro, 1966). Entrepreneurs in our study were presented with the series of 16 profiles, along with instructions mitigating for unobservable effects on evaluations. After evaluating the 16 original profiles, participants were asked to evaluate a fully replicated set of profiles with the cards presented in differing orders, bringing the total number of scenarios completed to 33, including the practice scenario. The experiment concluded with a brief questionnaire capturing individual differences in human capital, knowledge, education, and demographics.

The first step of our analysis involves testing the internal reliability of participants. As previously mentioned, the experimental task was fully replicated to mediate order effects as well as examine the reliability of participants' decision criteria. Test-retest reliability was examined between the original and fully replicated profiles. Pearson's R correlations were calculated for each respondent, with a mean test-retest correlation of .71. Manual examination revealed that several response sets appeared unreliable (displaying low correlations between the original and the replicated experimental task). Although there is no prescribed threshold to determine unreliable response sets, we tested our data at Pearson R correlation cutoffs of .30 (n=12), .45 (n=14), and .60 (n=17), following the

various cutoff criteria reported in extant research (e.g. Holland & Shepherd, 2013; Patzelt & Shepherd, 2009; Shepherd, Patzelt, & Baron, 2012; Shepherd & Zacharakis, 1997, 1999). We found no significant differences in our results; therefore, to preserve sample size, we adopted the more conservative cutoff of .30. Twelve participants with Pearson correlations below .30 were excluded from further analysis. The final sample resulted in a total of 104 participants with a sample mean test-retest correlation of .80, comparable with prior research examining entrepreneurial decision policies (cf. Choi and Shepherd, 2004; Haynie et al., 2009; Mitchell and Shepherd, 2010). Sample statistics, along with bivariate correlations may be found in Table 1.

Table 1
Sample Statistics and Bivariate Correlations

Correlations	Mean	Median	S.D.	Work Exp	Mgmt Exp	Age	Gender	Firm Age
Work Exp	12.93	10.00	9.48					
Mgmt Exp	5.29	4.00	5.41	.605**				
Age	34.98	32.00	10.50	.908**	.551**			
Gender	0.58	-	0.49	-.104**	-.023	-.137**		
Firm Age	3.57	2.00	6.09	.389**	.526**	.403**	-.042*	
Firm Size	148.88	5.00	982.90	-.105**	-.032	-.085**	.109**	.010

N = 104, *p<05. **<01.

Decision Criteria

Dependent Variable- The dependent variable is participants' rating of the attractiveness of each opportunity profile. Conjoint analysis allows for the measurement of a part-worth

utility for each attribute presented in the profile from the combined individual ratings of each responded. To capture utility preferences, we measured the attractiveness of each opportunity using respondent's evaluations on an eleven-point Likert-type

scale ranging from a low (1) of “Not attractive at all” to a high (11) of “Extremely Attractive”.

Decision Criteria- The decision criteria employed in this experiment are grounded in factors identified in resource-based theory of the firm (Barney 1991, 2014) and used in similar empirical investigations on opportunity evaluation as first-person opportunities (Fiet & Patel, 2008; Haynie et al., 2009; Mitchell & Shepherd, 2010). We defined and presented these decision criteria as fit, value, rarity, and inimitability at one of two levels: high and low, and piloted our survey with a student sample to ensure clarity

and comprehensibility. It is important to note that a low level of any of these criteria does not mean the factor is not present, only that it is present in a lesser degree. Table 2 defines these four factors at each of their levels, as well as a fifth factor employed in this study: organizational form, represented as either an independent or franchised venture opportunity. Although these factors may not represent every attribute considered in entrepreneurial opportunity decisions, they are appropriate for this study because they represent the factors that are believed to be most closely associated with sustainable competitive advantage as identified by resource-based views of the firm.

Table 2
Independent Variables

Variables	Operationalization
Organizational Form	Franchise- The opportunity is a franchise organizational form.
	Independent- The opportunity is an independent organizational form.
Fit	High- The opportunity is highly related to your specific knowledge, ability, and skills.
	Low- The opportunity is unrelated to your specific knowledge, ability, and skills.
Value	High- The opportunity possesses a high potential for considerable revenues, suitable to the size of the investment.
	Low- The opportunity possesses a low potential for considerable revenues, suitable to the size of the investment.
Rarity	High- The presence of current or potential competitors is low.
	Low- The presence of current or potential competitors is high.
Inimitability	High- There is minimal potential for competitors to imitate or create substitutes for this opportunity.
	Low- There is considerable potential for competitors to imitate or create substitutes for this opportunity.

Predictors and Controls- Following the experimental task, participants were asked to complete a brief questionnaire to capture

predictor and control variables. Entrepreneurs were first asked to report the perceived importance of each of the five decision criteria

on a seven-point Likert-type scale ranging from (1) 'not very important' to (7) 'very important'. At the mean, all five criteria were perceived as important, -- rarity (mean = 4.92, S.D. =1.20), inimitability (mean = 4.88, S.D. =1.34), organizational form (mean = 5.24, S.D. = 1.36), fit (mean = 5.94, S.D. =1.05) and value (mean = 6.24, S.D. =1.02). Because we hypothesize that knowledge will influence the relationships between form and the interaction of form and fit on opportunity attractiveness, we collect several indicators of specific and general knowledge of organizational forms. Participants were asked to report number of years of work experience working for a franchisee or franchisor, whether their current venture is part of a franchised system, and whether their immediate family has franchise ownership experience. Participants were also asked to report general knowledge of franchising that might have been acquired through courses on franchises or franchising, reported in the number of courses.

There are several factors theorized to influence entrepreneurial decision making and the evaluation of entrepreneurial opportunities. First, entrepreneurial experience has been suggested to influence cognition and entrepreneurial decision making (Baron & Ensley, 2006; Ucbasaran et al., 2008), therefore we control for the age and size of the current venture. Second, prior knowledge has been suggested to be the main source of opportunity recognition (Shane, 2000) and we expect it may play a role in the evaluation of opportunities as well, thus we control for number of years of work experience and education—whether or not the participant has a Bachelor's degree or greater.

ANALYSIS AND RESULTS

Although our final sample included 104 entrepreneurs, each entrepreneur provided 32 observations, resulting in 3,328 total observations. To account for dependence of errors due to the nested nature of the data, we used hierarchical linear modeling (HLM) to analyze this data. Specifically, we used HLM 7.0 software in our analysis. In building our models, we follow best practices as outlined by Aguinis, Gottfredson, and Culpepper (2013). Model parameters are estimated using full information maximum likelihood to allow for the comparison of models. Table 4, below, provides a comparison of the models examined, detailing coefficients, standard errors, and significance. Model 1 is the unconditional (or Null) model, which allows for the calculation of the intraclass correlation coefficient (ICC) (Raudenbush & Bryk, 2002). The ICC for the unconditional model (.02) indicates that 98 percent of the variance in the evaluation of entrepreneurial opportunities takes place at the within-person, between-decision level and two percent of the variance is due to individual differences.

Model 2 is a random intercepts (coefficients) model with fixed slopes (RIMFS) including level-1 predictor variables (form, fit, value, rarity, inimitability, and the interaction of form*fit) as well as level-2 controls. To maximize parsimony, we examine control variables against the intercept only, and iteratively trim nonsignificant controls ($p > .05$). Dummy variables and variables with a meaningful zero were entered in our equation uncentered. Age was centered at the grand mean. Nonsignificant control variables were dropped from the model by order of worst fit to identify the best possible model. Analysis indicates that only age (coefficient=

0.04, S.E. = .01, $p < .001$), and work experience (coefficient = -0.04, S.E. = .01, $p < .001$) impact average valuation (the intercept). Results from the RIMFS model indicate support for our base model predicting the higher-level effects of the FVRI framework on evaluations of resource attractiveness. However, the organizational form decision criteria, in and of itself, does not appear significant in decision-making. Due to the perceived importance of form (mean = 5.24) and the statistically significant interaction of form and fit (coefficient = 0.24, S.E. = .09, $p < .01$), the Form variable was left in the model for further analysis.

Before moving on to the hypothesized model, we examined whether individual differences did, in fact, exist in the perception and influence of a match between form and fit in new venture evaluations. Model 3 in our model building process is a random intercept model with random slopes (RIMRS). Results from the RIMRS model indicate, however, that the form*fit interaction slope does not vary significantly across participants. Therefore, the final model is the RIMRS model that includes the six level-1 predictors and interaction effect, and trimmed controls. The final model is shown mathematically in Figure 2. Table 3 provides a comparison of the three models.

Figure 2. Mathematical model.

$$DV_{ij} = \gamma_{00} + \gamma_{01}*(EXP_1j) + \gamma_{02}*(AGE_j - \mathbf{AGE.}) + \gamma_{10}*FORM_{ij} + \gamma_{20}*FIT_{ij} + \gamma_{30}*VAL_{ij} + \gamma_{40}*RARE_{ij} + \gamma_{50}*INIM_{ij} + \gamma_{60}*FORMxFIT_{ij} + u_{0j} + u_{1j}*FORM_{ij} + u_{2j}*FIT_{ij} + u_{3j}*VAL_{ij} + u_{4j}*RARE_{ij} + u_{5j}*INIM_{ij} + r_{ij}$$

***Legend**

DV=Rating	FORM= Organizational Fform
EXP_1=Work Experience	FIT= Human Capital Relatedness
AGE= Entrepreneur's Age	VAL= Value
<u>RARE= Rarity</u>	<u>INIM= Inimitability</u>

**Bold Italics indicate the mean score of participants, resulting in a grand-mean centered age predictor

Table 3

Model Comparison: Chi-square Different Test.

Model	Deviance	Para- meters	Compa rison	Δ chi- square	p- value	AIC	BIC (n=104)	Preferred Model
Null	15846.00	3	-	-	-	15859. 93	15852.00	-
RIMFS	13182.73	11	Null	71.29	<.001	13233. 82	13204.73	RIMFS
RIMRS	11975.04	31	RIMFS	19.05	<.001	12119. 02	12037.04	RIMRS

We also tested for additional level-one interaction effects we did not hypothesize specifically: the interactions of fit and form with value, rarity, and inimitability. Concerning the interactions of fit, consistent with the findings of Haynie et al. (2009), we found a significant interaction effect between fit and value (coefficient= .47, S.E.=.11, $p<.001$), suggesting that entrepreneurs may believe they can extract more value from opportunities that are closely related with their prior knowledge. Examining the interaction of form, we find that the Form*Inimitability interaction is also statistically significant (coefficient= .30, S.E. =.09, $p<.001$). Similar to the interaction between form and fit, the slope of the form*inimitability interaction does not vary across individuals. Full results for all three models plus the best model as indicated through post-hoc analysis are shown in Table 4, below.

Hypothesis Testing

Hypotheses 1 and 2 are our baseline hypotheses predicting direct effects of organizational form and the interaction of form and fit on entrepreneurs' evaluations of opportunity attractiveness. To test these hypotheses, we examined our final model—the RIMRS model. Specifically, concerning Hypothesis 1, the data suggests that

entrepreneurs do not consider form alone as a significant decision criterion, indicated by a nonsignificant correlation coefficient ($p=.306$). Hypothesis 2 predicts an interaction effect between organizational form and fit. The statistical significance and positive coefficient of the interaction variable (coefficient= .24, $p<.01$) indicates support for Hypothesis 2, a match between form and fit influences an entrepreneur's evaluation decisions of new venture opportunities. Hypothesis 3 predicts that an individual's knowledge of franchise organizational forms would moderate the influence of a form*fit match on opportunity evaluations; however, in our sample, the variance of the form*fit slope was not statistically significant, indicating that individual differences appear to have little influence on the evaluation of match between format and fit. Therefore, Hypotheses 3a and 3b could not be tested.

DISCUSSION

In this study, we explore the roles of knowledge and organizational form on the evaluation of entrepreneurial opportunities. We investigate the evaluation of opportunities using a judgment-based procedure of entrepreneurs' ratings of potential new

venture opportunities presented in terms of their resources attributes.

Contrary to our first hypothesis, we find that, in general, entrepreneurs find opportunities with independent organizational forms no more attractive than franchised ventures. One possible explanation could be the perception that ‘you get what you pay for’. Although pursuing a franchised venture comes with ongoing costs, entrepreneurs are likely to expect to receive equivalent value from the franchisor, consistent with prior research suggesting that franchise fees and royalties are related to the value of the franchise (Baucus, Baucus, & Human, 1993).

Despite the lack of support that the type of organizational form directly influences opportunity evaluations, entrepreneurs in our survey still indicated that they perceived the form variable as important in their opportunity evaluations (mean = 5.13, S.D. = 1.38),

suggesting that the influence of form may be contingent upon the resources attributes which are present.

We find that important to entrepreneurs is an appropriate match between the relatedness of their specific human capital (fit) and organizational form. The relationship between form and fit suggests that entrepreneur’s will assess opportunities as more attractive when there is a match between the form and fit of an opportunity. In other words, when an entrepreneurs skills are unrelated to a franchise opportunity or are highly related to an independent opportunity, the entrepreneur will assess an opportunity as more attractive than when there is no match between form and fit. In this study, it could be said that entrepreneurs assign a premium to related independent ventures and unrelated franchise ventures.

Table 4 *HLM Results*

Variables	Null Model 1	RIMFS Model 2	RIMRS Model 3	Best Model Model 4
Intercept	5.87 (.08) ***	6.39 (.18) ***	6.45 (.17)***	5.78 (.18)***
Direct Effects	-	-	-	-
Fit	-	2.16 (.09)***	2.16 (.09)***	2.16 (.09)***
Value	-	2.66 (.13)***	2.66 (.13)***	2.66 (.13)***
Rarity	-	1.56 (.08)***	1.56 (.08)***	1.56 (.08)***
Inimitability	-	0.43 (.16)**	0.43 (.16)**	0.43 (.16)**
Form	-	0.06 (.05)	0.06 (.05)	0.06 (.05)
Form*Fit	-	0.24 (.09)**	0.24 (.09)**	0.24 (.09)**
Form*Inimitability	-			0.30 (.09)***
Fit*Value	-			0.47 (.11)***
Level-2 Controls (on Intercept)	-	-	-	-
Work Experience	-	-0.04 (.01)***	-0.05 (.01) ***	-0.04 (.01)***
Age	-	0.04 (.01)***	0.04 (.01)***	0.04 (.01)***
Parameters	3	11	31	40
Deviance	15846.00	13182.73	11975.04	11882.54
Deviance Difference	-	2663.27	1207.69	92.50
σ^2	6.61	2.90	1.54	1.48

Coefficients reported (with robust standard errors in parenthesis). N=104. , *p<.05. **p<.01. ***p<.001.

We believe these findings are especially salient in light of previous research which has found that the industry or business category decision is often made first, followed by the decision whether to open an independent venture or enter a franchise arrangement (Kaufmann & Stanworth, 1995). If an individual first decides on a business category, but perceives that he or she has insufficient knowledge to exploit an opportunity in that category, entering a franchise agreement may appear more attractive than ‘going it alone’ (Watson & Stanworth, 2006).

Although results indicate little variance existed due to individual differences and we were unable to find any effects of knowledge of organizational form on opportunity evaluation nor the importance entrepreneurs place on a match between form and fit, the absence of individual difference may indicate that the interaction of form and fit in entrepreneurial evaluations is generally understood among entrepreneurs in our sample. A summary of our findings is provided in Table 5 below.

Table 5
Summary of Hypotheses

Baseline Hypothesis	
H1: When an opportunity is an independent organizational form, the opportunity will appear to the entrepreneur, as compared with franchise organizational forms.	Not Supported
Interaction Hypothesis	
H2: When entrepreneur’s knowledge, skills, and abilities are highly related to an opportunity, independent organizational forms will appear more attractive to an entrepreneur; however, when these knowledge, skills, and abilities are unrelated, franchise organizational forms will appear more attractive.	Supported
Predictor Hypotheses	
H3a: Entrepreneurs will place greater emphasis on the match between form and fit when entrepreneurs have specific knowledge of franchise organizational forms than entrepreneurs without specific knowledge of franchise forms.	Not Testable
H3b: Entrepreneurs will place greater emphasis on the match between form and fit when entrepreneurs have general knowledge of franchise organizational forms than entrepreneurs without general knowledge of franchise forms.	Not Testable

Figure 3 shows our results graphically, representing the statistically significant interaction of form and fit in the predicted values for entrepreneurs of average age, with median work experience, holding value,

rarity, and inimitability constant. As our results suggest, the figure indicates that when the relatedness of an individual’s human capital and the human capital required to exploit an opportunity is low, franchise

opportunities will appear more attractive than founding an independent venture. Likewise, when the relatedness of an individual's human capital and the human capital required to

exploit an opportunity is high, founding an independent venture will appear more attractive than franchise opportunities.

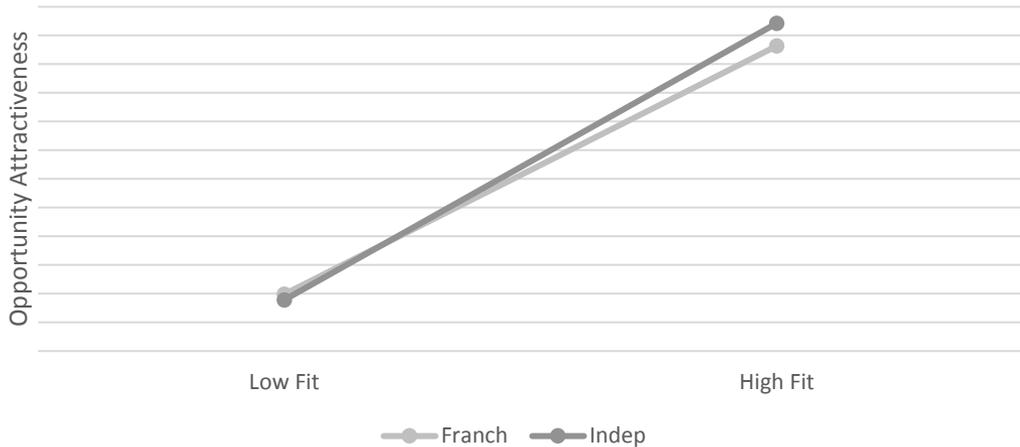


Figure 3. Graphical impact of a form-fit match.

Finally, it is important to discuss the unexpected interaction effect revealed during post-hoc analysis. Although previous researchers have suggested that RBV may be an integral theory for understanding the evaluation of franchise opportunities (Welsh et al., 2011), in this sample we find that the impact of inimitability is also contingent on organizational form. The positive interaction between organizational form and inimitability suggests that while entrepreneurs assess highly inimitable independent ventures as more attractive than independent ventures with low inimitability, the impact of inimitability may not be as clear in franchise opportunities. One explanation for this could be that a key implication of entering a franchise agreement is the ability to imitate or replicate the procedures and processes perfected by the franchisor (Dada & Watson, 2013).

Potential Methodological Limitations

This research is not without its limitations. First, judgement and decision-making research utilizing conjoint analysis is subject to criticism of the artificial nature of the experiment, the external validity of conjoint analysis tasks, and the risk that participants attribute importance to decision criteria simply because they are part of the experiment. However, conjoint analysis has been employed thousands of times (Green et al. 2001), and decision-making observed in conjoint analysis experiments has been shown to accurately reflect decision-making processes in the real world (Brown, 1972; Hammond & Adelman, 1977). Although we advance conjoint analysis as an appropriate tool to investigate our research question, we acknowledge and attempt to mitigate these potential limitations. Hence, we pilot tested our study with a student sample to ensure

clarity and comprehensibility. We also carefully selected attributes strongly established in theory, extending several prior studies built on the FVRI framework. Finally, we collected and compared self-reported preference data with the decision policies we observed in the conjoint analysis results.

A second limitation is the concern over the use of compensated, on-line participant pools, such as MTurk, as reliable sources of participants in entrepreneurship research. However, within the social sciences, researchers have already begun to tap MTurk participants for a variety of research in industrial psychology such as ethical leadership (Lin, Ma, & Johnson, 2016), self-control and supervisor abuse (Yam, Fehr, Keng-Highberger, Klotz, & Reynolds, 2016), employee voice (Lin & Johnson, 2015), and leader-member exchange (Erdogan, Bauer, & Walter, 2015). Further, Aguinis and Lawal (2013) and Kraus, Meier, and Niemand (2016) both highlighted the Mechanical Turk as potentially valuable subject pools for entrepreneurship research.

Implications for Research and Practices

Extending the literatures on both RBV and opportunity evaluation, our findings offer insight on the complex relationships that exist between an entrepreneur's human capital and opportunity evaluation. Additionally, this research contributes to the franchising literature in several ways. First, the focus of this research is on how entrepreneurs evaluate the attractiveness of franchise vs. independent ventures as potential opportunities. A vast majority of the extant franchising literature focuses on franchisors rather than franchisees (Combs, Ketchen, Shook, & Short, 2010),

providing ample opportunities for inquiry into the antecedents of franchising from the perspective of the franchisee. Second, following the research call of Combs et al. (2010), this research provides insights to the question of whom might be drawn to franchising and why. Our findings indicate that when the relatedness between an entrepreneur's human capital and the knowledge domain of an opportunity is low, a franchised organizational form is more appealing than attempting to exploit an opportunity independently. In short, when an entrepreneur perceives that his/her knowledge regarding an opportunity is low, it is more likely that the entrepreneur will seek to leverage the knowledge of a franchisor, rather than initiate an independent business. However, the inverse of this relationship is also true. When an entrepreneur's human capital is highly related to a potential opportunity, an independent venture is evaluated as more attractive. These explanations merit further investigation in future research. For instance, the knowledge domain of the industry is only one relative knowledge domain that may be related to an entrepreneurial opportunity. In order to fully understand the relationship between knowledge and entrepreneurial opportunity evaluations, future research should also consider other relevant knowledge domains, such as knowledge related to customers, to markets, and to technologies.

We believe this research also holds practical implications. Recent research has suggested that franchisors seek and value entrepreneurial individuals as franchisees (Dada, Watson, & Kirby, 2015). Bennett, Frazer and Weaven (2010) suggest that independent entrepreneurs might be a fruitful avenue from which to recruit new franchisees.

Our findings provide several suggestions for franchisors in recruiting, training and retaining franchisees. First, franchisors should be careful about seeking out current independent firms in their own industry. When an entrepreneur has specific knowledge relevant to an opportunity, he or she is likely to view independent ventures as more attractive than franchised ventures. If franchisors want to target entrepreneurs of existing firms, they should seek out firms in adjacent industries who may benefit from the expertise of the franchisor, but may need more industry specific training and support. Second, the longer franchisees remain in a franchise system, the less they will rely on the knowledge and training of the franchisor. Franchisees are exceptionally concerned with value, evidence by the complaints concerning initial franchise fees, royalties, and advertising fees as well as have difficulty perceiving and describing the value of franchise systems to which they belong (Grünhagen & Dorsch, 2003). In order to increase recruitment, satisfaction, motivation, and retention, franchisors may have to highlight idiosyncratic benefits to franchisees with longer tenure or industry experience, such as the benefits of structural and relational capital.

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Denise M. Cumberland is an assistant professor of human resources and organization development in the Organizational Leadership and Learning program at the University of Louisville. Her research interests include governance, leadership, and training within global organizations, franchising firms and the nonprofit sector. She has been published in *Human Resource Development Review*, *Human Resource Development International*, *Nonprofit Management Leadership*, *Journal of Developmental Entrepreneurship*, *Journal of Marketing Channels* and the *International Journal of Management Education*

Shaun Paul Digan is a Ph.D. Candidate in Entrepreneurship at the University of Louisville. He holds an M.B.A. from the University of Cincinnati. His research focuses on entrepreneurial learning, cognition, and decision making.

Robert P. Garrett, Jr. is an associate professor of entrepreneurship and the coordinator of the undergraduate Entrepreneurship Minor at the University of Louisville. His research interests include internal corporate venturing and family business. He has been published in *Organization Science*, *Journal of Business Venturing*, *Entrepreneurship Theory and Practice*, *Strategic Entrepreneurship Journal*, *Journal of Small Business Management*, and *Small Business Economics*.

Sharon A. Kerrick is the Dean for Bellarmine University's Rubel School of Business. Previously she was the Associate Director of the Forcht Entrepreneurship Center at the University of Louisville's College of Business (2002-2016). She has published research in the areas of entrepreneurship, e-learning and financial literacy and her work has been cited by Forbes. She is an Enterprise Angel investor and the creator of the "Launch in Louisville" \$100,000 Cardinal Challenge package as well as founder of VetStart -an entrepreneurship startup program for military veterans (an SBA Awarded program).