Which Kinds of Legitimacy is Important?

A Case Study on the Corporate Life Cycle in an IT Company

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ABSTRACT

Although legitimacy has been identified as a vital issue for firms, existing literatures of legitimacy for firms mainly focus on one stage in their life cycle. To this end, this article applies the theory of cooperate life cycle to explore what the proper legitimacy that firms should obtain to increase their performance at their development stages. The authors develop a research model and run an empirical test on 496 IT firms. The results show that cognitive legitimacy, normative legitimacy, and regulative legitimacy play different roles across the life cycle of firms. The authors also find that proper strategy at the three stages in firms' life cycle can help them acquire and enhance the appropriate legitimacy. Furthermore, the proper legitimacy will help firms improve their performance. The findings are proved in a case study on 58.com, a leading classifieds information provider in China. This article makes contributions to management literature by extending the theory of legitimacy for firms and providing guidelines for firms to obtain the proper legitimacy at each stage of their life cycle.

KEYWORDS

Corporate Life Cycle, E-Business, IoT, Legitimacy, Performance

INTRODUCTION

Firms, particularly new ventures, face great challenges from uncertainty surrounding, availability of resources, technological feasibility, market needs, institutional legitimacy, and adoption of innovations (Aldrich & Fiol, 1994; Carroll & Hannan, 2004). Information technology firms, particularly those focusing on E-business, are facing more challenges in the era of Internet of Things (IoT) (Li, 2013; Li & Zhou, 2013; Li, Xu, & Zhao, 2015, 2018; Oliverio, 2018; Viriyasitavat & Martin, 2017; Wang, Chaudhry, & Li, 2016; Xu & Duan, 2018; Xu, He, & Li, 2014; Xu, 2011, 2016; Xu, Liang, & Gao, 2008; Xu, Xu, & Li, 2018). Existing literatures have attribute these challenges to many factors, such as adapting to new products, technologies or services, access to needed resources, capital or markets, immature institutional environments and the lack of legitimacy (Aldrich & Fiol, 1994; Stinchcombe,

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1965). Specifically, Stinchcombe and March (1965) point out the liability of newness that firms have to overcome at their initial stage. As firms grow, they face new challenges, including the anomalies, miscues, imitation failures, and innovations. External shocks threaten the legitimacy of firms, even the most secure ones especially if such misfortunes either arrive in rapid succession or are left unaddressed for a significant period of time (Suchman, 1995).

Among many resources, legitimacy is the one that a firm must to acquire for survival (Zimmerman, 2002). According to Scott (1995), legitimacy is “a condition reflecting cultural alignment, normative support, or consonance with relevant rules or laws” (p. 45). It is asocial judgment of acceptance, appropriateness, and/or desirability (DiMaggio & Powell, 1991). Scott (1995) categorizes legitimacy into cognitive legitimacy, normative legitimacy and regulative legitimacy. Legitimacy is vital for firms to survive and develop. Proper strategy can help firms acquire and enhance their legitimacy. Furthermore, the proper legitimacy will help firms improve their performance.

According to Van de Ven and Poole (1995), firms evolve through a predetermined sequence of stages, named the life cycle model. The stages in a life cycle are viewed as representing a linear progression, while each stage exhibits different integral complementarities among variables such as strategy, structure, and decision-making methods (Miller & Friesen, 1984). The transformation from one stage to another of firm frequently results from upheaval, such as a crisis of leadership during the start-up period (Van de Ven & Poole, 1995). Although most firms seek several types of legitimacy simultaneously, different legitimation strategies are needed at each stage (Suchman, 1995). Therefore, firms should implement proper legalization strategy and obtain the proper legitimacy at each stage.

Legitimacy has been identified as a critical issue for new ventures and mature firms (Aldrich & Fiol, 1994; Hunt & Aldrich, 1996), but previous studies of legitimacy for firms mainly focus on one stage in their life cycle. Accordingly, this paper applies the theory of cooperate life cycle to explore what the proper legitimacy that firms should obtain to increase their performance at their development stages. We develop a research model and run an empirical test on 496 IT firms. The results show that cognitive legitimacy, normative legitimacy, and regulative legitimacy play different roles across the life cycle of firms. We also find that proper strategy at the three stages in firms’ life cycle can help them acquire and enhance the appropriate legitimacy. Furthermore, the proper legitimacy will help firms improve their performance. The findings are proved by a case study on 58.com, a leading classifieds information provider in China. This paper makes contributions to management literature by extending the theory of legitimacy for firms and providing guidelines for firms to obtain the proper legitimacy at each stage of their life cycle.

LITERATURE REVIEW

Legitimacy

Legitimacy has been studied in management literature for several decades. Many scholars define legitimacy from diverse perspective. For example, Suchman (1995) defines legitimacy as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (p. 574). Later, Zimmerman and Zeitz (2002) define legitimacy as “a relationship between the practices and utterances of an organization and those that are contained within, approved of, and enforced by the social system in which the organization exists” (p. 416).

As the acceptance of the organization by its environment, legitimacy is vital for businesses to survive and to success (Dowling & Pfeffer, 1975; Hannan & Freeman, 1984; Meyer & Rowan, 1977). In order to survive, businesses need to deal with uncertainty surrounding, availability of resources, technological feasibility, market needs, and adoption of innovations (Aldrich & Fiol, 1994; Carroll & Hannan, 2000). Previous studies on organizational legitimacy have built solid theoretical foundation for examining these challenges (D’Aunno, Sutton, & Price, 1991; Dowling & Pfeffer, 1975; Meyer

& Scott, 1983; Scott, 1987; Scott, 1995). As Scott (1995) points out, legitimacy is not just another kind of resource but “a condition reflecting cultural alignment, normative support, or consonance with relevant rules or laws” (p45).

Scholars have not agreed with the categorization of legitimacy. For instance, Suchman (1995) groups legitimacy into pragmatic legitimacy, moral legitimacy, and cognitive legitimacy. In contrast, Scott (1995) categorizes legitimacy into cognitive legitimacy, normative legitimacy, and regulative legitimacy. Cognitive legitimacy is “widely held beliefs and taken-for-granted assumptions that provide a framework for everyday routines, as well as the more specialized, explicit and codified knowledge and belief systems promulgated by various professional and scientific bodies” (Scott, 1994, p81). Cognitive legitimacy comes from adopting a common frame of reference or definition of the situation. Cognitive legitimacy requires to adopt an orthodox structure or identity in order to relate to a specific situation. Normative legitimacy is derived from the norms and values of society or from a level of the societal environment relevant to the new venture (Scott, 1995). A normative conception stresses a deeper moral base for assessing legitimacy. It countenances actions departing from mere legal requirements (Scott, 1995). Regulative legitimacy is derived from regulations, rules, standards, and expectations created by governments, credentialing associations, professional bodies, and even powerful organizations (Scott, 1995). It ascertains whether an organization is legally established and whether the organization is acting in accord with relevant laws and regulations. Legitimate organizations are those established by and operating in accordance with relevant legal or quasi-legal requirements. Normative controls are much more likely to be internalized than are regulative controls, and the incentives for conformity are hence likely to include intrinsic as well as extrinsic rewards. Suchman (1995) points out that cognitive legitimacy may involve either affirmative backing for an organization or mere acceptance of the organization as necessary or inevitable based on some taken-for-granted cultural account. Thus, it is important to note that the three conceptions may lead to varying conclusions regarding the legitimacy of an organization.

Although most organizations seek several types of legitimacy simultaneously, different legitimization strategies operate with different logics. Suchman (1995) notes that few organizations pursue all three forms of legitimacy with equal zeal. What legitimacy means to business organizations is that it provides a basis for decision making that is important for any business organization throughout its life cycle. The first question that a new business faces maybe which legitimacy is the primary one. Given the importance of legitimacy selection for business, however, existing literatures about legitimacy neglect this issue, particularly which legitimacy businesses should choose at different stages of their life cycle. Neither is the question how businesses improve their legitimacy in different stages answered by existing literatures. Guided by network theory, Zimmerman and Zeitz (2002) find that legitimacy can be enhanced by strategic actions, such as building network with the large business that are taken by the new venture. In addition, they find that such action is not only particularly important for new ventures, but also for mature businesses to integrate resources, to maintain a high level of legitimacy, and to achieve sustainable development. Their findings are proved by other research. For example, Dacin, Oliver, and Roy (2007) confirm that strategic alliances serve an important legitimating function for firms and that the essence of alliance enterprises is to raise legitimacy through establishing relationship with alliance members.

In addition, studies on the roles that legitimacy plays at different development stages in business life cycle are not available, either. Existing literatures study legitimacy from the perspective of institution or resource. But they neglect the significant role social networking structure plays at different stages of legitimization. Accordingly, Wry and Deephouse (2006) call for more empirical studies on legitimacy. Therefore, this paper develops a conceptual framework for exploring the role of legitimacy playing at different phases of an entrepreneurial process. Specifically, this paper argues that different legitimacy is required at the stages in a business life cycle.

Corporate Life Cycles and Legitimacy

Firms are evolving entities and their path of evolution is determined by internal factors and external factors (Dickinson, 2011). Firm life cycles are distinct phases that result from changes in these factors. Models of life cycle stages are not new in the literature of organizations (Chandler, 1962). Scholars have developed diverse approaches for identifying the stages in firms' life cycle. For example, Miller and Friesen (1984) propose five phases for a corporate life cycle, including the birth phase, the growth phase, the mature phase, the revival phase, and the decline phase. Later, Baird and Meshoulam (1988) proposes a four-stage model, which consists of start-up, emerging growth, maturity, and revival. Regardless the name of stages in a corporate life cycle, each stage represents certain characteristics and resources that reflect an organization's congruence with its business objectives, including the ability of making adjustment to the conditions in the environment and of establishing competitive position vis-à-vis competitors (Porter, 1980). Furthermore, dominant problems, such as those related to legitimacy and networking issues, are found to be correlated with life cycle stages (Kazanjan, 1988). The stages of life cycle models are viewed as representing a linear progression, in which each stage exhibits different integral complementarities among variables, such as strategy, structure, and decision-making methods (Miller & Friesen, 1984). Legitimacy issues might be different at various stages in a business life cycle. Many legitimacy problems associated with new ventures appear to stem from a lack of customers' knowledge and understanding of the new ventures. Although particular concern to entrepreneurs has been given to cognitive legitimacy (Shepherd & Zacharakis, 2003), some scholars study legitimacy problems in large enterprises. For instance, Kostova and Zaheer (1999) examine organizational legitimacy in the context of multinational enterprises (MNE). They analyze legitimacy of a MNE as a whole and in parts. They explore the answers for issues such as internal legitimacy versus external legitimacy, as well as positive and negative legitimacy spillovers. Although legitimacy for new ventures has been studied (Aldrich & Fiol, 1994), and legitimacy has been identified as a critical issue that mature business organizations face (Hunt & Aldrich, 1996), studies on the role that legitimacy plays at the stages in a corporate life cycle are not available. Particularly, the roles that each kind of legitimacy plays at the stages in a corporate life cycle needs to be explored. According to Zimmerman and Zeitz (2002), legitimacy plays a key role in the process of understanding the creation, survival, and growth of new ventures. Characteristics, resources, and goals are different at the stages of a corporate life cycle. However, the strategies proposed by Suchman (1995) for overcoming challenges of legitimacy threshold do not consider corporate life cycle. Some relationship might exist between legitimation strategies and corporate life cycle. Firms at their initial stage face the challenge of how to overcome the liability of newness (Freeman, Carroll, & Hannan, 1983; Stinchcombe & March, 1965) and gaining legitimacy (Suchman, 1995). Firms at their growth stage face the challenge of how to maintain their legitimacy, whereas firms at their mature stage face the challenge of how to maintain and repair their legitimacy (Suchman, 1995). There is no need for firms to consider legitimacy at their decline stage, because they face many other serious issues, such as shrinking market, falling profits, management confusion, staff turnover, and even close to death. Enlightened by Aldrich and Sakano (1998), this paper defines corporate development stage as the time beginning at an enterprise is created and ending when the enterprise become mature. Specifically, a corporate life cycle consists of the newly established stage, the early growth stage, and the mature stage.

Firm Performance

Firm performance is a multidimensional construct. There are many ways to measure performance, financially and strategically, in prior research (Peng & Luo, 2000). For small firms, performance is evaluated with sale growth, return on sales (ROS), net profit, and gross profit (Lumpkin & Dess, 2001). Growth measures and financial success measures have been widely used on small firms (Runyan, Droge, & Swinney, 2008). Particularly, Niehm (2002) and Frazier (2000) develop a special scale to measure performance of small firms, namely compared to last year, compared to major competitors,

and compared to other similar firms in the industry. For non-small businesses, return on investment (ROI), Return on asset (ROA), Return on Equity (ROE), Return on sales (ROS), and market share have been widely adopted to measure firm performance. Although there has been some debate about using ROA instead of ROS or ROE, the results generated by these approaches are the same (Markides, 1995). Some scholars argue that market share can be better regarded as a size variable than a performance variable. Oster (1999) points that market share and profit are highly correlated.

THEORY DEVELOPMENT

Research Model

Given the categories of legitimacy faced by enterprises and the stages in a business life cycle discussed in the previous sections, this paper proposes a research model describing the relationship between enterprises' legitimacy and the stages in their life cycle as shown in Figure 1. Enterprises' performance is chosen to measure the effect of the relationship.

Legitimacy at Newly Established Stage

The newly established stage is the period when a new firm is attempting to become a viable entity. Firms at this stage are young and dominated by their owners. They also have simple and informal structures. However, new ventures fail at an alarmingly high rate. According to Timmons (1999), twenty-four percent of new ventures fail within their first two years. This phenomenon is explained by Stinchcombe and March (1965) with the term "the liability of newness". The cause of the liability of newness is identified as the legitimacy threshold (Singh, Tucker, & House, 1986; Aldrich & Fiol, 1994). The legitimacy threshold is generated by the lack of the business confidence and effective market information among new ventures' stakeholders, including suppliers, distributors, customers, employees, and society (Singh, Tucker, & House, 1986). Firms with low business confidence and low effective market information among their stakeholders have low public awareness and low degrees of recognition (Aldrich & Fiol, 1994). As a result, they lack cognitive legitimacy. Rao, Chandy, and Prabhu (2008) argue that new ventures can gain legitimacy by creating associations with established entities.

For new ventures, survival is their primary goal. They must let customers know their products or services. Because legitimacy associated with new ventures appear stem from a lack of knowledge and understanding (Aldrich & Fiol, 1994; Hannan & Carroll, 1992), it is easier for new ventures

Figure 1. Research model

to get legitimacy if they know their stakeholders better. In order to attain legitimacy at their newly established stage, firms need to let their stakeholders know all aspects about them. Therefore, cognitive legitimacy is essential for firms to survive at their newly established stage. A cognitive view stresses the legitimacy that comes from adopting a common frame of reference or definition of the situation. When stakeholders know more about a firm, the firm has higher cognitive legitimacy (Scott, 1995). As a result, stakeholders trust the firm and they might provide more resources and support for the firm. The firm can improve its operation and consumers can enjoy better products or services provided by the firm. This leads to the following hypothesis:

Hypothesis 1 (H1): At their newly established stage, firms have better performance by obtaining cognitive legitimacy than by obtaining other legitimacies.

Legitimacy at Early Growth Stage

Firms enter their early growth stage after they established their distinctive competences. At this stage, firms enjoyed their initial product-market success. Firms become larger scale, aiming for achieving advantages via rapid sales growth and access to amassing resources (Miller & Friesen, 1984). The main challenge for firms is how to acquire resources and how to deal with uncertainties. Their strategic goal is to grow fast (Hite & Hesterly, 2001). They need to take proper strategies to stabilize production and product (and/or service) reliability, to match demand increases, and to maintain cash flow (Dodge & Robbins, 1992). Therefore, firms at this stage need abundant resources to improve the pace of development. However, because they are still new, it is difficult for them to obtain necessary resources.

A regulative view ascertains whether a firm is legally established and whether it is acting in accord with laws and regulations. Legitimate firms are those that are established and operated in accordance with legal or quasi-legal requirements. In transitional economies, governments hold a strong control on scarce resources. The market required by fast-grow firm is usually controlled by governments. Particularly, major banks and financial institutions are state-owned in transitional economies. In order to achieve fast growth, firms must follow regulations from governments, banks, and financial institutions. Therefore, firms' regulative strategy plays a key role at their early growth stage. In other words, firms must follow the regulations to ensure their access to resources. Furthermore, firms need to obtain business licenses and probably favorable policies and regulations from governments. They also need to be consistent in following regulations. In this way, they get regulative legitimacy, which in turn promotes their development. Firms build relationships with governments to obtain regulative legitimacy and further achieve the access to resources, increase their market shares, and protect their operation (Nee, 1992; Khanna & Palepu, 1997; Peng, 1997; Walder, 1995). This leads to the following hypothesis:

Hypothesis 2 (H2): At their early growth stage, firms have better performance by obtaining regulative legitimacy than by obtaining other legitimacies.

Legitimacy at Mature Stage

With a stable market share in the market, firms' strength has been greatly improved at mature stage. In addition, firms have gained strong assets and more advanced technology. Their corporate culture and organizational structure become stable. Therefore, other than economic benefits, firms begin to focus on their social benefits. Their strategic objective changes into pursuing stability and sustainable development.

Existing literatures have proven that competition among firms has evolved from the competition of equipment, funds, and other tangible assets to the competition of intangible assets, such as knowledge, technology, personnel, management, innovation, and corporate culture. Firms at mature stage already have plenty of tangible assets. Their goal switches to intangible assets. Among intangible

assets, corporate management is extremely important because it can help firms realize their public values, social responsibilities, gain good reputation, improve product quality, increase brand value, and improve quality of personnel. Thus, corporate management is an important intangible asset for firms to maintain stable development resources. Moreover, members of firms can ultimately lead to their acquisition of legitimacy (Elsbach & Sutton, 1992). Furthermore, a clear business philosophy is necessary for firms to build corporate identity. Business philosophy represents the corporate culture and values of a firm. When the values of a firm and social values are consensus, it is easier for the firm to establish a good public image (Kotter & Heskett, 1997). Stressing moral obligations, the normative orientation may countenance actions departing from “mere” legal requirements. Once a firm creates a good corporate image among the public, its image can hardly be changed by changes in environment, leadership, and staff. This becomes an inexhaustible power for the healthy and sustainable development of a firm.

Firms at mature stage should devote to establish good corporate image and enhance the consistency of their values, social norms, and public values. In addition, these values should be transmitted to the public and improve the firm’s legitimacy of norms. In this way, can firms have a sustainable competitive edge. This leads to the following hypothesis:

Hypothesis 3 (H3): At their mature stage, firms have better performance by obtaining normative legitimacy than by obtaining other legitimacies.

METHOD

Sample and Procedures

In order to test the hypotheses, we conduct a survey from January 1, 2014 to March 10, 2014 on 920 IT firms in 27 provinces across China. Respondents of the survey include method time management (MTM) members, firm managers, and general managers. Among the 920 IT firms, we drop those without firm background information, submitting incomplete surveys, and providing the same answers for all questions in the survey. At the end, we have 496 IT firms.

The average age of the IT firms in the sample is 16.29 years ($SD = 19.10$ years). In terms of the size, 10% of the firms have fewer than 10 employees. 21% of the firms have 10-50 employees. 26% of the firms have 50-200 employees. 14% of the firms have 200-500 employees. 26% of the firms have more than 500 employees. Regarding industry, 34% of the firms are in manufacturing industry. 33% of the firms are in service industry. In terms of ownership, 17.5% of the firms are state-owned. 58% of the firms are privately owned. The rest are foreign joint venture firms.

Measures

For all survey items, unless specified, a five-point Likert scale is applied (1 = strongly disagree; 5 = strongly agree).

Firm Growth Stages

In this paper, we categorize growth stage into newly established stage, early growth stage, and mature stage. According to Zhao and Aram (1995), we defined firms less than 2 years old as start-up ones, firms between 3 and 8 years old as early growth ones, and firms older than 8 years as mature ones.

Legitimacy

We study 3 types of legitimacy, namely cognitive legitimacy, normative legitimacy, and regulative legitimacy, in this paper. Measurements for logomachy developed by Aldrich and Von Glinow (1992), Scott (1995), and Suchman (1995) have been widely adopted in existing literatures. The original measurement scales are written in English. We select 14 items in their scale to measure legitimacy of

firms. First, we translate all 14 items into Chinese by following the commonly used translation-back translation procedure (Brislin, 1980). Then we do a pretest to confirm the accuracy of the translation.

Performance

Performance of new ventures are usually measured with two approaches. For listed firms, their growth rate of market share, growth rate of employee, and net profit growth rate can be found in their reports (Yu, 2013). In China, because list procedure is cumbersome, it usually takes many years for a firm to successfully be traded by public. It is hard to find new ventures in the listed public traded firms. Thus, it is difficult to assess their performance (Watson, 2007). Because sales and profit of new ventures are sensitive data, they are hard to be got via survey. Given these difficulties, we adopt the scale in Watson (2007) to assess the performance of new ventures.

Control Variables

Based on previous studies, we choose firm size (represented by the numbers of employees), industry (manufacturing, service, and other), and ownership (SOE, POE, and joint venture) as control variables in this study.

RESULTS

Table 1 shows descriptive statistics for all variables in the research model. It lists the means, variances and correlation coefficients for all variables.

As shown in Table 1, market guanxi and government guanxi are positively related to the three kinds of legitimacies. Cognitive legitimacy and firm performance($r = 0.59$, $p < 0.01$), regulative legitimacy and firm performance($r = 0.59$, $p < 0.01$), and normative legitimacy and firm performance($r = 0.63$, $p < 0.01$) are all positively correlated. At the same time, firm size($r = 0.24$, $p < 0.01$) and firm performance have significant correlations. In addition, industry ($r = -0.05$, n.s.) and ownership ($r = -0.07$, n.s.) have no significant correlation with firm performance.

Common Method Issues

Given that all the variables come from the same source, concern of the potential common method variance exists. In order to minimize common source bias, we apply several techniques. First, we

Table 1. Descriptive statistics and correlations

		Mean	S.D.	1	2	3	4	5	6	7	8	9
1	Firm stage ^b	2.51	0.61									
2	Firm size ^c	3.24	1.33	0.40**								
3	Industry ^d	1.94	0.81	-0.06	-0.12*							
4	Ownership ^e	2.11	0.80	-0.12*	-0.08	-0.01						
5	Market guanxi	3.61	0.73	0.02	0.12*	-0.07	-0.07					
6	Government guanxi	3.11	0.80	0.00	0.20**	-0.06	-0.06	0.36**				
7	Cognitive legitimacy	3.65	0.74	0.10*	0.20**	-0.06	-0.07	0.42**	0.28**			
8	Regulative legitimacy	3.77	0.70	0.10*	0.25**	0.00	-0.07	0.35**	0.31**	0.58**		
9	Normative legitimacy	3.53	0.73	0.05	0.18	0.01	-0.01	0.31**	0.28**	0.52**	0.58**	
10	Performance	3.35	0.58	0.07	0.24**	-0.05	-0.07	0.33**	0.25**	0.59**	0.59**	0.63**

a. N ranges from 472 to 496, * $p < .05$, ** $p < .01$; ^b Categorical variable, 1 = Manufacturing firms, 2 = service firms, 3 = others; ^c Number of employees: 1 = 1-10, 2 = 11-50, 3 = 50-200, 4 = 200-500, 5 = above 500; ^d Industry: dummy variable, 1 = manufacturing industry, 2 = service industry, 3 = others; ^e Ownership: 1 = SOEs, 2 = POEs, 3 = joint ventures

promise that all surveys are confidential. In order to reduce responders' concerns, for example, we provide participants evaluation apprehension and social desirability at the beginning of survey. Second, we perform psychological separation by putting these variables in different parts and using different instructions. This procedure is commonly used for minimizing respondents' perception of direct connection among these variables (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Finally, we calculate the variance explained by the method factor and obtain a value of 21.18%, which is below the cut-off value of 25%. Thus, common method variance is not an issue in this study.

When testing hypotheses, we examine which type of legitimacy generates a better performance at different stages first. H1, H2, and H3 predict that cognitive legitimacy, regulative legitimacy, and normative legitimacy generate a better performance at firms' start up stage, early growth stage, and mature stage, respectively. We use three models listed in Table2 to test H1, H2, and H3.

In model 1, we can see that for start-up firms, cognitive legitimacy generates the highest performance ($b = 0.45$, $p < 0.01$). Performance generated by normative legitimacy is in the middle ($b = 0.24$, $p < 0.1$). Regulative legitimacy generates the lowest performance ($b = 0.04$, $p < 0.01$). Furthermore, model 1 is significant ($R^2 = 0.64$, $F = 6.22$, $p < 0.01$). Thus, H1 is strongly supported.

In Model 2, we can see that for firms at early growth stage, regulative legitimacy generates the highest performance ($b = 0.32$, $p < 0.001$). Performance generated by cognitive legitimacy is in the middle ($b = 0.15$, $p < 0.01$). Normative legitimacy generates the lowest performance ($b = 0.11$, $p < 0.05$). In addition, model 2 is significant ($R^2 = 0.57$, $F = 34.22$, $p < 0.01$). Thus, H2 is strongly supported.

Table 2. Results of regression between legitimacy and performance

Variables	Model 1	Model 2	Model 3
Constant	0.86 (0.56)	1.17*** (0.22)	1.11*** (0.19)
Firm size	0.04 (0.06)	0.05* (0.02)	0.02 (0.02)
Industry	0.09 (0.12)	-0.03 (0.04)	-0.04 (0.03)
Ownership	-0.11 (0.09)	-0.03 (0.04)	-0.02 (0.03)
Cognitive legitimacy	0.45** (0.14)	0.15** (0.05)	0.19*** (0.04)
Regulation legitimacy	0.04 (0.19)	0.32*** (0.05)	-0.01 (0.05)
Normative legitimacy	0.24† (0.13)	0.11* (0.05)	0.46*** (0.04)
R ²	0.64	0.57	0.55
Adjusted R ²	0.54	0.55	0.54
F	6.22**	34.22***	52.12***
N	28.00	163.00	259.00

Notes: † $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Standard error estimates are reported in parentheses.

In Model 3, we can see that for firms at mature stage, normative legitimacy ($b = 0.46$, $p < 0.001$) and cognitive legitimacy ($b = 0.19$, $p < 0.001$) generate the same level of performance. Regulative legitimacy generates a lower level of performance ($b = -0.01$, n.s.). Moreover, model 3 is significant ($R^2 = 0.55$, $F = 52.12$, $p < 0.01$). Thus, H3 is partly supported.

These results indicate that in order to improve performance, firms should obtain different legitimacies at the three stages in their life cycle. Particularly, at the newly established stage they should focus on obtaining cognitive legitimacy. At the early growth stage, they should focus on obtaining regulative legitimacy. At the mature stage, they should focus on obtaining cognitive legitimacy and normative legitimacy.

A CASE STUDY ON 58.COM

Founded on December 12, 2005, 58.com is for-profit version of Craigslist in China. The company 58.com operates the largest classifieds advertisement website serving local merchants and consumers in China. The website www.58.com and mobile applications enable local merchants and consumers to connect with others, share information, and conduct business. At present, 58.com's online marketplace contains a vast amount of credible and up-to-date local information in approximately 380 cities in China, across diverse content categories, including housing, jobs, used goods, autos, pets, tickets, yellow pages, and other local services (58.com, 2018a).

As one of the earliest online information platforms in China, 58.com experienced difficulties from the very beginning. At the newly established stage back in 2005, few people knew how to get information from the Internet in China. People tend to trust information provided by traditional media. Many people thought that most information on the Internet was fake. Thus, they refuse to get classified information by visiting www.58.com to. In order to gain people's trust, 58.com invited celebrities to endorse their service in TV commercials. Furthermore, it actively got involved in public events and was titled the Top 50 Firms Attracting Investment Most in October 2006. Its CEO won the award of Internet Innovation Individual in 2006 in China. In this way, 58.com was accepted by the public gradually. It obtained cognitive legitimacy and began to grow fast (58.com, 2018a).

At the early growth stage, 58.com worked closely with the local government. In 2010, 58.com won the award Top 30 Innovation Firms in Beijing. In 2014, 58.com purchased 450,000 m² office space from a local company Beijing Electric City Investment Ltd. In this way, 58.com builds good rapport with local government and gains regulative legitimacy. Once 58.com obtains regulative legitimacy, it achieves easy access to resources and expands quickly. On October 31, 2013, 58.com went public on the New York Stock Exchange. The number of its employees grows from over 5,000 in 2013 to about 10,000 in 2014 (58.com, 2018b).

At the mature stage, 58.com explores opportunities to corporate with main players in the IT industry. It focuses on building corporate social responsibility and aims to become a leading firm in information technology industry. In June 2014, 58.com got the investment of 736 million U.S. dollars from Tencent, one of the major IT companies in China. By March 2016, 58.com had connected 10,000,000 local merchants and 400,000,000 consumers in 400 cities across China (Zhang, 2016). In 2018, 58.com began to explore oversea market. By taking these measures, 58.com aims for obtaining and increasing normative legitimacy and cognitive legitimacy.

Regarding the performance across the stages in 58.com's lifecycle, the assets of 58.com rose from 56 million U.S. dollars in 2012 to 4 billion U.S. dollars in 2016. The profit rose from 87 million U.S. dollars in 2012 to 1.1422 billion U.S. dollars in 2016 (Futunn, 2018). The improvement of 58.com's performance proves that 58.com has adopted effective strategies at their development stages for obtaining the proper legitimacy.

CONCLUSION

The main contribution of this paper is that we apply the theory of cooperate life cycle to explore what the proper legitimacy that firms should obtain to increase their performance at their development stages. Previous studies of legitimacy for firms mainly focus on one stage in their life cycle, such as new ventures or large mature firms. This study expands the scope of legitimacy research to the whole life cycle of firms. Particularly, we find that cognitive legitimacy, normative legitimacy, and regulative legitimacy play different roles across the life cycle of firms. Legitimacy is vital for firms to survive and develop. Proper strategy at the three stages in firms' life cycle can help them acquire and enhance the appropriate legitimacy. Furthermore, the proper legitimacy will help firms improve their performance. The findings have been proved by a case study on 58.com. This paper not only extends the theory of legitimacy for firms, but also provides the direction for managers to acquire the proper legitimacy that fits the development stage of their firms and is helpful for achieving fast and sustainable development.

LIMITATION AND FUTURE RESEARCH

Although the findings in this study extends the theory of legitimacy for firms and provides managers practical guidelines, it has the following limitations.

First, the paper studies the relationship between legitimacy and firms' performance at the three stages in their life cycle. Besides development stage, many other factors impact firms' performance, such as the nature of business. This paper does not take these factors into account. Future research should verify the findings in this paper by consider these factors as well as other variables, including firms' ownership, size, and their industries. Particularly, future research should explore the role that guanxi plays in the process firms obtaining legitimacy.

Second, there is only one dependent variable in this research. This reduces the accuracy of data and lowers the reliability of this study. Future research should apply the common method by setting more dependent variables to verify the findings in this paper.

Third, data in this study is collected via participants' answers. The difference between participants' subjective perception and actual situation might cause error in this study. Future study should develop new approaches and collect objective data to verify the findings in this paper.

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REFERENCES

- 58.com. (2018a). Introduction of 58.com. Retrieved from <http://about.58.com/home/introduction.html>
- 58.com. (2018b). Investor relations. Retrieved from <http://58.investorroom.com/>
- Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review*, 19(4), 645–670. doi:10.5465/amr.1994.9412190214
- Aldrich, H. E., & Sakano, T. (1998). Unbroken Ties Comparing Personal Business. In *Networks, markets, and the Pacific Rim: Studies in strategy*.
- Aldrich, H. E., & Von Glinow, M. A. (1992). *Business start-ups: The HRM imperative*. In *International Perspectives on Entrepreneurial Research* (pp. 233–253). New York: North-Holland.
- Baird, L., & Meshoulam, I. (1988). Managing two fits of strategic human resource management. *Academy of Management Review*, 13(1), 116–128. doi:10.5465/amr.1988.4306802
- Brammer, S., & Millington, A. (2008). Does it pay to be different? An analysis of the relationship between corporate social and financial performance. *Strategic Management Journal*, 29(12), 1325–1343. doi:10.1002/smj.714
- Brislin, R. W. (1980). *Translation and content analysis of oral and written material*. In *Handbook of cross-cultural psychology*.
- Carroll, G. R., & Hannan, M. T. (2000). Why corporate demography matters: Policy implications of organizational diversity. *California Management Review*, 42(3), 148–163. doi:10.2307/41166046
- Carroll, G. R., & Hannan, M. T. (2004). *The demography of corporations and industries*. Princeton, NJ: Princeton University Press.
- Dacin, M. T., Oliver, C., & Roy, J. P. (2007). The legitimacy of strategic alliances: An institutional perspective. *Strategic Management Journal*, 28(2), 169–187. doi:10.1002/smj.577
- D'Aunno, T., Sutton, R. I., & Price, R. H. (1991). Isomorphism and external support in conflicting institutional environments: A study of drug abuse treatment units. *Academy of Management Journal*, 34(3), 636–661. PMID:10128668
- Dickinson, V. (2011). Cash flow patterns as a proxy for firm life cycle. *The Accounting Review*, 86(6), 1969–1994. doi:10.2308/accr-10130
- DiMaggio, P. J., & Walter, W. P. (1991). *The new institutionalism in organizational analysis*. Chicago, IL: University of Chicago Press.
- Dodge, H. R., & Robbins, J. E. (1992). An empirical investigation of the organizational life cycle model for small business development and survival. *Journal of Small Business Management*, 30(1), 27–37.
- Dowling, J., & Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior. *Pacific Sociological Review*, 18(1), 122–136. doi:10.2307/1388226
- Elsbach, K. D., & Sutton, R. I. (1992). Acquiring organizational legitimacy through illegitimate actions: A marriage of institutional and impression management theories. *Academy of Management Journal*, 35(4), 699–738.
- Frazier, B. (2000). *The Influence of Network Characteristics on Information Access*. In *Marketing Competence and Perceptions of Performance in Small, Rural Businesses*.
- Freeman, J., Carroll, G. R., & Hannan, M. T. (1983). The liability of newness: Age dependence in organizational death rates. *American Sociological Review*, 48(5), 692–710. doi:10.2307/2094928
- Futunn. (2018). Introduction of 58.com. Retrieved from <https://news.futunn.com/wiki/usWUBA>
- Hannan, M. T., & Carroll, G. R. (1992). *Dynamics of organizational populations: Density, legitimation, and competition*. Oxford University Press.
- Hannan, M. T., & Freeman, J. (1984). Structural Inertia and Organizational Change. *American Sociological Review*, 49(2), 149–164. doi:10.2307/2095567

- Hite, J. M., & Hesterly, W. S. (2001). The evolution of firm networks: From emergence to early growth of the firm. *Strategic Management Journal*, 22(3), 275–286. doi:10.1002/smj.156
- Hunt, C. S., & Aldrich, H. E. (1996). Why even Rodney Dangerfield has a home page: Legitimizing the world wide web as a medium for commercial endeavors. In *annual meeting of the Academy of Management*, Cincinnati, OH.
- Kazanjian, R. K. (1988). Relation of dominant problems to stages of growth in technology-based new ventures. *Academy of Management Journal*, 31(2), 257–279.
- Khanna, T., & Palepu, K. (1997). Why focused strategies may be wrong for emerging markets. *Harvard Business Review*, 75(4), 41–48.
- Kostova, T., & Zaheer, S. (1999). Organizational legitimacy under conditions of complexity: The case of the multinational enterprise. *Academy of Management Review*, 24(1), 64–81. doi:10.5465/amr.1999.1580441
- Kotter, J. P., & Heskett, J. L. (1997). *Dampak Budaya Perusahaan terhadap Kinerja [Corporate Culture and Performance]*. Prenhallindo.
- Li, L. (2013). The path to made-in-China: How it was done and future prospects. *International Journal of Production Economics*, 146(1), 4–13. doi:10.1016/j.ijpe.2013.05.022
- Li, L., & Zhou, H. (2013). Manufacturing practices in China. *International Journal of Production Economics*, 146(1), 1–3. doi:10.1016/j.ijpe.2013.09.006
- Li, S., Xu, L. D., & Zhao, S. (2015). The internet of things: A survey. *Information Systems Frontiers*, 17(2), 243–259. doi:10.1007/s10796-014-9492-7
- Li, S., Xu, L.D., & Zhao, S. (2018). 5G Internet of Things: A survey. *Journal of Industrial Information Integration*. doi:10.1016/j.jii.2018.01.005
- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429–451. doi:10.1016/S0883-9026(00)00048-3
- Markides, C. C. (1995). Diversification, restructuring and economic performance. *Strategic Management Journal*, 16(2), 101–118. doi:10.1002/smj.4250160203
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363. doi:10.1086/226550
- Meyer, J. W., & Scott, W. R. (1983). Centralization and the legitimacy problems of local government. *Organizational environments: Ritual and rationality*, 21(4), 199–215.
- Miller, D., & Friesen, P. H. (1984). A longitudinal study of the corporate life cycle. *Management Science*, 30(10), 1161–1183. doi:10.1287/mnsc.30.10.1161
- Nee, V. (1992). Organizational dynamics of market transition: Hybrid forms, property rights, and mixed economy in China. *Administrative Science Quarterly*, 37(1), 1–27. doi:10.2307/2393531
- Niehm, L. S. (2003). Retail superpreneurs and their influence on small communities.
- Oliverio, J. (2018) A Survey of Social Media, Big Data, Data Mining, and Analytics. *Journal of Industrial Integration and Management*. doi:10.1142/S2424862218500033
- Oster, S. M. (1999). *Modern competitive analysis*. OUP Catalogue.
- Peng, M. W. (1997). Firm growth in transitional economies: Three longitudinal cases from China, 1989–96. *Organization Studies*, 18(3), 385–413. doi:10.1177/017084069701800303
- Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal*, 43(3), 486–501.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *The Journal of Applied Psychology*, 88(5), 879–903. doi:10.1037/0021-9010.88.5.879 PMID:14516251

- Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competition*.
- Rao, R. S., Chandy, R. K., & Prabhu, J. C. (2008). The fruits of legitimacy: Why some new ventures gain more from innovation than others. *Journal of Marketing*, 72(4), 58–75. doi:10.1509/jmkg.72.4.58
- Runyan, R., Droge, C., & Swinney, J. (2008). Entrepreneurial orientation versus small business orientation: What are their relationships to firm performance? *Journal of Small Business Management*, 46(4), 567–588. doi:10.1111/j.1540-627X.2008.00257.x
- Scott, W. R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly*, 32(4), 493–511. doi:10.2307/2392880
- Scott, W. R. (1994). Institutional analysis: Variance and process theory approaches. Employee training: The expansion of organizational citizenship. In W. R. Scott, J. W. Meyer, & Associates (Eds.), *Institutional environments and organizations: Structural complexity and individualism* (pp. 81-99). Thousand Oaks, CA: Sage.
- Scott, W. R. (1995). *Institutions and organizations*. Thousand Oaks, California: Sage Publication.
- Shepherd, D. A., & Zacharakis, A. (2003). A new venture's cognitive legitimacy: An assessment by customers. *Journal of Small Business Management*, 41(2), 148–167. doi:10.1111/1540-627X.00073
- Singh, J. V., Tucker, D. J., & House, R. J. (1986). Organizational Legitimacy and the Liability of Newness. *Administrative Science Quarterly*, 31(2), 171–193. doi:10.2307/2392787
- Stinchcombe, A. L., & March, J. G. (1965). Social structure and organizations. *Advances in Strategic Management*, 17, 229–259. doi:10.1016/S0742-3322(00)17019-6
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571–610. doi:10.5465/amr.1995.9508080331
- Timmons, M. (1999). *Morality without foundations: A defense of ethical contextualism*. Oxford: Oxford University Press.
- Viriyasitavat, W., & Martin, A. (2017). The reviews and analysis of the state-of-the-art service workflow specification languages. *Journal of Industrial Information Integration*, 8, 1–7. doi:10.1016/j.jii.2017.07.002
- Walder, A. G. (1995). Local governments as industrial firms: An organizational analysis of China's transitional economy. *American Journal of Sociology*, 101(2), 263–301. doi:10.1086/230725
- Wang, P., Chaudhry, S., & Li, L. (2016). Introduction: Advances in IoT research and applications. *Internet Research*, 26(2), IntR-06-2015-0183. doi:10.1108/IntR-06-2015-0183
- Watson, J. (2007). Modeling the relationship between networking and firm performance. *Journal of Business Venturing*, 22(6), 852–874. doi:10.1016/j.jbusvent.2006.08.001
- Wry, T., & Deephouse, D. L. (2006). An examination of the relationship between corporate social performance and stakeholder perceptions of corporate social performance. In *Proceedings of 10th International Conference on Corporate Reputation, Identity, and Competitiveness*, New York.
- Xu, L. (2011). Enterprise Systems: State-of-the-Art and Future Trends. *IEEE Transactions on Industrial Informatics*, 7(4), 630–640. doi:10.1109/TII.2011.2167156
- Xu, L. (2016). Inaugural Issue Editorial. *Journal of Industrial Information Integration*, 1, 1–2. doi:10.1016/j.jii.2016.04.001
- Xu, L., & Duan, L. (2018). Big data for cyber physical systems in industry 4.0: a survey. *Enterprise Information Systems*, online published. DOI: .10.1080/17517575.2018.1442934
- Xu, L. D., He, W., & Li, S. (2014). Internet of things in industries: A survey. *IEEE Transactions on Industrial Informatics*, 10(4), 2233–2243. doi:10.1109/TII.2014.2300753
- Xu, L., Liang, N., & Gao, Q. (2008). An Integrated Approach for Agricultural Ecosystem Management. *IEEE Transactions on Systems, Man, and Cybernetics Part C*, 38(4), 590–599. doi:10.1109/TSMCC.2007.913894
- Xu, L., Xu, E., & Li, L. (2018). Industry 4.0: State of the art and future trends. *International Journal of Production Research*. doi:10.1080/00207543.2018.1444806

- Yu, M. (2013). State ownership and firm performance: Empirical evidence from Chinese listed companies. *China Journal of Accounting Research*, 6(2), 75–87. doi:10.1016/j.cjar.2013.03.003
- Zhang, W. G. (2016). How long will 58.com last? Retrieved from <http://finance.sina.com.cn/zl/international/2016-11-22/zl-ifxxwrwk1650017.shtml>
- Zhao, L., & Aram, J. D. (1995). Networking and growth of young technology-intensive ventures in China. *Journal of Business Venturing*, 10(5), 349–370. doi:10.1016/0883-9026(95)00039-B
- Zimmerman, M. A., & Zeitz, G. J. (2002). Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review*, 27(3), 414–431. doi:10.5465/amr.2002.7389921

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