

**INVESTIGATING EFFECTS OF
ENTREPRENEURIAL ORIENTATION AND MANAGEMENT ON PERFORMANCE:
PUBLIC SECTOR vs PRIVATE SECTOR**

By
KWON, Moonju

THESIS

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KDI School of Public Policy and Management
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ABSTRACT

INVESTIGATING EFFECTS OF ENTREPRENEURIAL ORIENTATION AND MANAGEMENT ON PERFORMANCE: PUBLIC SECTOR vs PRIVATE SECTOR

By

Moonju Kwon

This study explores how corporate entrepreneurship affects to organizational performance in private and public sector. In particular, this study investigates i) how the level of organizational performance differs based on the sectors; ii) how effects of entrepreneurial orientation and management differ performance objectives including satisfaction with performance and public value orientation; iii) how the effect of entrepreneurial orientation and entrepreneurial management on satisfaction with performance and public value orientation differs public sector from private sector organizations. The results of this study find that according to the sectors and performance objectives, the different variables of entrepreneurial orientation and management are significant on satisfaction with performance and public value orientation. This study provides managerial and theoretical implications to organizational entrepreneurship. To enhance the organization's performance, distinctive management strategies should be applied for public sector and private sector as well as considered type of performance objectives.

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I . Introduction

What is entrepreneurship in organization? Does it effective in all type of organization even in the public sector? Entrepreneurship, which often referred to innovation, risk-taking and proactiveness, has been underpinned as secret of success not only in economic development but also management researches. With the introduction of New Public Management (NPM) in 1980s, the public sector adopts private management skills in to its domain to overcome efficiency problems (Hafsi, Montreal, and Bernier 2007). As one of those private management skills, the entrepreneurial management also have attentions both in practical and theoretical domains (Kelly, Mulgan, and Muers 2002).

Despite it has been argued over two decades, the theory and empirical evidence are relatively a little compared to one of private sectors (Rauch et al. 2009). In particular, the effect on performance enhancement, which is main motivation of adoption, brings controversy whether it is effective in public sector as well. In this context, the corporate entrepreneurship has been tested under various considerations. However, the studies only focused on single type of organization or sector at once (Zahra 1991; Luke, Kearins, and Verreyne 2011). Even though academicians have been interested in comparative studies of public and private organizations (Perry and Rainey 1988), it is limited to normative researches or comparing the impact of performance management (Hvidman and Andersen 2013), behaviour concept (Steinhaus and Perry 1996) and organization management features (Meier and O'Toole 2009). In the field of corporate entrepreneurship, empirical studies comparing both sector has been rarely conducted (Kearney, Hisrich, and Roche 2009).

Therefore, this study poses following three research questions; i) how the level of organizational performance differs based on the sectors; ii) how effects of entrepreneurial

orientation and management differ performance objectives including satisfaction with performance and public value orientation; iii) how the effect of entrepreneur orientation and entrepreneurial management on satisfaction with performance and public value orientation differs public sector from private sector organizations.

II. Literature Review

In chapter two, to give theoretical background on the subject, the concept of entrepreneurship in both of private and public would be discussed. Also the typology of public sector is suggested. Lastly the relationship between public entrepreneurship and performance in existing literatures would be articulated.

2.1 Review on Entrepreneurship within Organization

In this section, the historical progress on the concept of public entrepreneurship would be addressed. Since the concept has been derived from entrepreneurship of private sector, the origin of entrepreneurship and relevant arguments would be described first to help better understanding of the concept. The meaning and boundary of public sector in the context also are examined. Thereafter, the development toward public entrepreneurship and its characteristics compared to private entrepreneurship would be summarised.

Among many others, this thesis would focus on firm-behavioural approach. This approach provides more appropriate concept for testing the relationship between entrepreneurship and performance. Because when the performance is evaluated at organization level the relationship would be clearer since individual activities show performance through the organization (Kim 2008). Second, knowing the behavioural manifestations of entrepreneurship enables measuring the entrepreneurial level of firms as well as allowing managerial intervention which open up the considerable possibility of promoting performance

(Covin and Slevin 1991).

2.1.1 Concept of Entrepreneurship within Organization

The concept of entrepreneurship and its application have evolved and extended interdisciplinary throughout the history in various domains such as business management, economics, sociology and psychology (Ripsas 1998). Depending upon approaches to the concept, its interpretation has been diversified. Therefore, confusions on terms has been induced and sometimes overlapped, even contradicted to each other (Sharma and Chrisman 1999).

The term 'Entrepreneurship' was originated by French economist Richard de Catillon (1734), cited in Palmer (1971), to indicate self-employer's risk-taking activity in business market of selling and purchasing at uncertain level of price. A century later, Say (1827) enlarged the range of entrepreneur to "the master-manufacturer in manufacture ...the person who takes upon himself the immediate responsibility, risk, and conduct of a concern of industry, whether upon his own or a borrowed capital," in other words, manager of a firm who risk themselves for entrepreneurial profit through allocation of resource currently owned within given industry. Even if the motivations of entrepreneur activities or ownership status in each definition have been varied, it would be fair to say that initial emergence of entrepreneurship limited to 'the role of individuals expecting to benefit directly from the entrepreneurial profits of their labours' (Boyett 1996).

Profit-seeking activities of individual are, however, not the major concern to define entrepreneurship in academic fields afterward. Schumpeter (1934), 'the intellectual fathers of modern interpretation of entrepreneurship (Sharma and Chrisman 1999)' have given some starting point of different views and one of them is behavioural view (Ripsas 1998). Schumpeter (1934) mainly demonstrates the role of entrepreneur in the price-mechanism but

also explains it as “...it can be performed by entire organizations ... easily exceed or even circumvent the contributions of one central actor (Miller 1983).” This means that the boundaries of entrepreneurship are broadened to the extent that something could be carried on at organizational level.

The entrepreneurship as academic subject is begun to flourish in 1970~80s (Cornelius, Landstrom and Persson 2006; Low and MacMillan 1988). With the increasing amount of money invested in venture capital in the United States, larger corporations became interested in entrepreneurship within organization as a mean of innovation for better performance in changing environment (Stevenson 1983). In this context, one of the main arguments is what Gartner (1988) asserts that behavioural approaches are more productive perspective compared to trait approaches which focused on individual entrepreneur’s psychological traits. Inviting managerial behaviours of Mintzberg (1973), Gartner (1988) questions ‘what the entrepreneur does’ and considers entrepreneurship as a series of activity participating in organization creation. This creation entails Schumpeterian innovation that, regardless of the birth or rebirth of an organization, the change materially affects the nature of the organization (Sharma and Chrisman 1999). This behavioural view concentrates on organization level analysis rather than individuals who are only limited to undertake activities enabling ‘organizations to come into existence (Gartner 1988).’.

After these observations, scholars in 1990s to early 2000s turned their eyes to entrepreneurship in terms of organizational attributes as medium or means of entrepreneur activities (Kim and Yang 2013). The concept became a functional rather than a static since the entrepreneurial behaviour is ceased once organization created (Ripsas 1998) where the entrepreneurship is ‘a process of becoming, not a static phenomenon’ (Heinonen 2001). Covin and Slevin (1991) agree with this opinion that entrepreneurial behaviour is not the attributes or

features of the organization, rather it is the management strategy that the firms can employ.

Table 1. Terminologies of Corporate Entrepreneurship (modified from Diefenbach 2011)

Terminology	Definition	Study
Corporate Entrepreneurship	“ <i>Corporate entrepreneurship</i> in this paper refers to the process whereby firms engage in diversification through internal development. Such diversification requires new resource combinations to extend the firm’s activities in areas unrelated, or marginally related, to its current domain of competence and corresponding opportunity set.”	Burgelman (1983, pp157)
	“... <i>corporate entrepreneurship</i> : extending the firm’s domain of competence and corresponding opportunity set through internally generated new resource combinations.” (emphasis removed)	Burgelman (1984, pp. 154)
	“The topic of <i>corporate entrepreneurship</i> encompasses two types of phenomena and the processes surrounding them: (1) the birth of new businesses within existing organizations, i.e. internal innovation or venturing; and (2) the transformation of organizations through renewal of the key ideas on which they are built, i.e. strategic renewal.”	Guth and Ginsberg (1990, pp. 5)
	“ <i>CE</i> refers to the activities a firm undertakes to stimulate innovation and encourage calculated risk taking throughout its operations. These activities reinforce the company’s position in existing markets while allowing it to enter new and perhaps more lucrative growth fields.”	Zahra et al. (2009, pp. 248)
Entrepreneurship	“... <i>entrepreneurship</i> , the process by which organizations renew themselves and their markets by pioneering, innovation, and risk taking.” “An entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with ‘proactive’ innovations, beating competitors to the punch. ... We can tentatively view entrepreneurship as a composite weighting of these three variables.”	Miller (1983, pp.770–771)
Intrapreneur(-ship)	“ <i>Intrapreneurs</i> are any of the ‘dreamers who do.’ Those who take hands-on responsibility for creating innovation of any kind within an organization. They may be the creators or inventors but are always the dreamers who figure out how to turn an idea into a profitable reality.”	Pinchot (1985, pp. ix)
	“ <i>The intrapreneur</i> acts like an entrepreneur in that he/she realises his/her own ideas without being the owner of the enterprise. <i>Intrapreneurship</i> is here defined to mean entrepreneurial way of action in an existing organization.”	Cunningham and Lischeron 1991; Heinonen (2001, pp. 3)
	“In this study <i>intrapreneurship</i> is defined as entrepreneurship within an existing organization. It refers to a process that goes on inside an existing firm, regardless of its size, and leads not only to new business ventures but also to other innovative activities and orientations such as development of new products, services, technologies, administrative techniques, strategies, and competitive postures.”	Antoncic and Hisrich (2001, pp. 498)

These arguments have given birth to abundance of terms to capture the entrepreneurship within existing organization. Diefenbach (2011) summarise those terminologies (Table 1) which includes *corporate entrepreneurship* (Burgelman 1984; Guth and Ginsberg 1990), *entrepreneurship* (Miller 1983), *intrapreneurship* (Antoncic and Hisrich 2001; Pinchot 1985), *entrepreneurial posture* (Covin and Slevin 1991), *entrepreneurial orientation* (Lumpkin and Dess 1996), and *entrepreneurial intensity* (Morris and Sexton 1996).

Sharma and Chrisman (1999) reconcile numerous terms referring to the entrepreneurship within existing organizations. Their definition of corporate entrepreneurship is specified based on Collins and Moore (1970)'s work which distinct organization is created *independently* as new organization or *administratively* within existing organization;

Entrepreneurship encompasses acts of organizational creation, renewal, or innovation that occur within or outside an existing organization (Sharma and Chrisman 1999, p17).

Corporate entrepreneurship is the process whereby an individual or a group of individuals, in association with an existing organization, create a new organization or instigate renewal or innovation within that organization (Sharma and Chrisman 1999, p18).

Not only the definitions, but also many works on conceptual structuring of corporate entrepreneurship has been conducted (Table 2). Two influential works in this field are entrepreneurial orientation of Miller, Covin and Slevin and the Stevenson's entrepreneurial management (Brown and Davidsson 1998). Miller (1983) structured conceptualisation of entrepreneurial orientation in three dimensions; innovativeness, risk-taking, proactiveness which intensively quoted throughout the literatures. Based on his concept, Covin and Slevin (1991) theorize a conceptual model of entrepreneurship as firm behaviour combining cross-related three levels of variables; environmental, organizational, and individual. They argued that the entrepreneurial posture; risk taking, innovativeness, and proactiveness affect to firm performance associated with other moderate effect such as external environment, strategic

variables (mission strategy, business practices and competitive tactics) and internal variables (top management values and philosophies, resources and competencies, culture, structure). Zahra (1993) revised and extended Covin and Slevin's work to capture wholeness of the entrepreneurship, specifying entrepreneur behaviour, what Covin and Slevin called entrepreneurial posture, in terms of intensity, formality, type and duration. This addition provides a model that takes into account various internal conditions and the level specific interaction effect.

Entrepreneurial orientation means 'how a firm operates rather what it does' strategically, applying entrepreneurial postures on their decision-making styles, practices and methods (Lumpkin and Dess 1996), by being innovative to adopt new idea to old practices, being proactive for new market opportunities and taking risk to explore new products, services, and market (Covin and Slevin 1991). This can be an significant measure of how a firm taking advantage of market opportunities (Barringer and Bluedorn 1999, Ireland et al., 2003; Wiklund and Shepherd 2003; Zahra and Garvis 2000) and lead to new entry (Lumpkin and Dess 1996). A firm keeps transferring entrepreneurial orientation into strategic behaviour to meet the organizational goals and achieve higher performance to respond to the dynamic and competitive environment (Li, Huang, and Tsai 2009). Later, Lumpkin and Dess (2001) add two more dimension competitive aggressiveness, and autonomy. But three attributes are most frequently applied in many empirical researches either in summed or multidimensional indexes (Rauch et al. 2009).

Table 2. Definitions on Corporate Entrepreneurship Dimensions (modified from Diefenbach 2011)

Terminology	Definition	Study
Entrepreneurial postures	“... firms with <i>entrepreneurial postures</i> are risk taking, innovative, and proactive.” “An entrepreneurial posture is reflected in three types of organizational-level behaviors: top management risk taking with regard to investment decisions and strategic actions in the face of uncertainty; the extensiveness and frequency of product innovation and the related tendency toward technological leadership; and the pioneering nature of the firm as evident in the firm’s propensity to aggressively and proactively compete with industry rivals.”	Covin and Slevin (1991, pp. 7–10)
Entrepreneurial Orientation	“... new entry explains what entrepreneurship consists of, and <i>entrepreneurial orientation</i> describes how new entry is undertaken. ... An EO refers to the processes, practices, and decision making activities that lead to new entry. ... The key dimensions that characterize an EO include a propensity to act autonomously, a willingness to innovate and take risks, and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities.”	Lumpkin and Dess (1996, pp. 136–137)
	“ <i>EO</i> is an organizational state or quality that is defined in terms of several behavioral dimensions. Based on the pioneering work of Miller (1983), Covin and Slevin (1991) defined EO as implying the presence of organizational behavior reflecting risktaking, innovativeness, and proactiveness. Lumpkin and Dess’s (1996) model of EO adds competitive aggressiveness and autonomy to this list of attributes.”	Ireland et al. (2009, pp. 24)
	“ <i>EO</i> represents the policies and practices that provide a basis for entrepreneurial decisions and actions. Thus, EO may be viewed as the entrepreneurial strategy-making processes that key decision makers use to enact their firm’s organizational purpose, sustain its vision, and create competitive advantage(s).”	Rauch et al. (2009, pp. 763)
Entrepreneurial intensity	“an organization’s overall <i>entrepreneurial orientation, or intensity</i> , is the result of combining the number of entrepreneurial events that are taking place(frequency) with the extent to which these events are innovative, risky, and proactive(degree).”	Morris and Jones (1999, pp. 76)
	“... <i>entrepreneurial orientation, or intensity</i> , which is a reflection both of how many entrepreneurial things they are doing, and how innovative, risky, and proactive those things tend to be.”	Morris et al. (2011, pp. 118)
Entrepreneurial Management	“From our perspective, entrepreneurship is an approach to management that we defined as follows: the pursuit of opportunity without regard to resources currently controlled.”	Stevenson (1983, pp. 3)
	“ Entrepreneurial management , defined as a set of opportunity-based management practices, can help firms remain vital and contribute to firm and societal level value creation.”	Brown, Davidsson and Wiklund (2001, pp. 2)

With sharing the recognition of limitation of traditional functional approaches or trait approaches, another behavioural approach would be discussed within opportunity-based conceptualizations. It is what Brown, Davidsson and Wiklund (2001) called entrepreneur management. This concept is originated Stevenson (1983) comparison between promoter type and trustee type of firm behaviour. Stevenson (1983) believes aspects of entrepreneurial orientation only gives partial explanation of entrepreneurial activity and even it premise sufficient resource enough to bare the risks. Therefore, he focuses on entrepreneurship as ‘mode of management’ which pursue the opportunity regardless resources they currently owned. This perspective also share some points with Kirzner’s (1999) view of entrepreneurship as “alertness to opportunity” in functional perspective theory (Stevenson and Jarillo, 1990; Brown, Davidsson and Wiklund 2001).

These managerial aspects of entrepreneurship elaborated in continuum of two ends points of promoter-type and trustee-type firm, in six critical dimensions that shows a cohesive pattern of managerial behaviour: strategic orientation, the commitment to opportunity, the resource commitment process, the concept of control over resources, the concept of management, and compensation policy (Stevenson 1983). The description is partly overlapped with entrepreneurial orientation concept as well as supplements its weakness (Brown, Davidsson, and Wiklund 2001) such as ambiguousness of proactiveness dimension (Lumpkin and Dess 1996), lack of measuring opportunity exploitation (Shane and Venkataraman 2000). Also, it is established upon comprehensive understanding of management regardless with size or age of their organization (Brown and Davidsson 1998). Therefore, the concept would be useful to review the entrepreneurship within all type of organizations.

To revisit the concept of corporate entrepreneurship in previous part, Sharma and

Chrisman(1999) defined it as a process whereby individual or a group of individual (who) convey new organization creation, renewal or innovation(what) within existing organization(when). However, they do not explicitly mention 'how' the concept is exploited. In this context, to capture the wholeness of corporate entrepreneurship, entrepreneurial orientation as attitude of organization in its decision making process and entrepreneurial management as behaviour of organization how they act on the issue should be included within the definition. Therefore, in this study the corporate entrepreneurship are defined as below;

Corporate Entrepreneurship is a process that entrepreneurial oriented individuals or a group of individual creates new organization or carry out renewal of existing organization through entrepreneurial management tactic.

2.1.2 Classification of Public Sector

To develop corporate entrepreneurship in private sector to public one, meaning of the 'public organization' must be understood in advance. This issue have attracted many scholars over the world due to its international relevance (Rainey and Bozeman 2000). Despite of many researches, the distinction between private and public left vague (Diefenbach 2011). However, it is no doubtful that public organizations are pursuing the goal of public interest, national commitment and life quality of the general public on behalf of the government with delegated authority and accountability by government (Kipf 2011). Even under the similar goals, however, the way of pursuing them and structures it carries may varied. Thus the categorization of public sectors could be complicate.

As much as its complexity, each nation refers public institutions in various terms. In UK, public sector is broadly divided into three parts in terms of autonomy and financial dependency on departments; government department, Non-Departmental Public Bodies (NDPBs) and public corporation (UK Cabinet Office 2012). NDPB is defined as a bespoken

body in legislation which play a role in national policy execution in accordance with minister's strategic framework, whereas public corporations are organizations which generate more than 50% of their revenue from market (i.e. a chartered or statutory corporation, a government-owned company and a joint venture or public private partnership) (UK Cabinet Office 2012).

New Zealand also gives legal classification on public sector through *State Sector Act 1988* depending on degree of publicness and independency. According to State Service Commissioner (2016), it divides public sector into three parts: public service, state services and state sector. Public service means government bodies and state services is "all instruments of the Crown in respect of the Government of New Zealand, whether departments, corporations, agencies, or other instruments," and state sector refers to the agencies whose financial situation and performance are reported to the government under the *public Finance Act 1989* (State Service Commissioner 2016). Sweden's public sector shows simple categorization consisting of ministry, agency, public enterprises and SOEs in general definition (Kipf 2010). However, statistically it does not include public sector in national account due to its market exchange of products whereas the output of Public Enterprises are consumed in political manners (Kipf 2010).

In Korea, *Act on the Management of Public Institution* suggests certain legal evidence to be public institutions. It broadly categorises them in State Owned Enterprise(SOE), quasi-governmental Institution and others providing public goods and services (Lim 2008). It includes institutions which government grants exceeds one-half of the amounts of its total revenue or holds at least 50 percent of the outstanding shares. Also, the government may secure practical control over through the exercise of the power to appoint executives with at least 30 percent of the outstanding shares or otherwise (Kipf 2011).

Even the terminologies are varied across the nations, the categorization could be done under the combinations of common criteria; autonomy (independency), publicness and financial grants. These criteria could be constructed from not only in practical context but also in theoretical context. Rainey, Backoff and Bozeman (1976), in his comprehensive reviews on literatures, suggests three common dimensions of distinction; environmental factors, organization-environment transactions and internal structures and process. Within those dimensions, many variables have been discussed afterward; funding and ownership, sovereignty, the relationship between outputs and resources (Wamsley and Zald 1973), political authority and economic authority (Bozeman 1987), a combination of ownership, funding and mode of social control (Perry and Rainey 1988). Also, abundance of empirical studies has been conducted on goal complexity and goal ambiguity, organization structure (mainly formalisation and red tape), formalization of personnel and purchasing processes (Rainey and Bozeman 2000). But these are rather influential variables on organizational behaviour what Bozeman (1987) refer to goal setting, resource acquiring, transforming, motivation, structuring controlling, and effectiveness. Lane (1995) insists public-private distinction is not one distinction but several; exchange and authority, competition and hierarchy, laissez-faire and planning, market economy and command economy, capitalism and socialism, and freedom versus authority.

Among them, Dahl and Lindblom (1953) suggest a continuum placing different type of organization somewhere middle of two other points; the government agency and private enterprises (Table 3). They provide some hybrid organizations but did not suggest specific criteria to divide (Rainey 2009). Wamsley and Zald (1973)'s distinction is worth to have attention since '*ownership* and *funding*' is clearly distinctive feature of organization both in practical and theoretical manner (Perry and Rainey 1988). Public organizations is owned and

funded by government whereas private organizations lives on their own with sales of product and services (Wamsley and Zald 1973). This would embrace Bozeman(1987)’s distinction based on authority which differentiate political authority as government funding from economic authority as self-classified market orientation, since this leads to funding issue as well. In addition to those two criteria, introduction of quasi-private management in public sector, such as privatization makes the distinction more complex. Stemming from dissatisfaction with problem of traditional bureaucratic public sector, such as leadership as well as efficiency, it introduces private management techniques into public sector (Lane 1995). These makes two sectors more closer and even work together by bringing the concept of market, customer orientation and efficiency (Heinonen 2001), therefore, blurred the distinctions.

Table 3. Agencies, Enterprises, and Hybrid Organizations (Dahl and Lindblom1953; Rainey 2009)

	Private non-profit organizations totally reliant on government contracts and grants	Private corporations reliant on government contracts for most revenue	Heavily regulated private firms	Private corporations with significant funding from government contracts but the majority of revenue from private sources	Private corporations subject to general government regulations such as affirmative action, Occupational Safety and Health Administration regulations	Private Enterprise
Government Agency	State-owned enterprise or public corporation (SOE)	Government-sponsored enterprise	Government Ownership of part of a private corporation		Government program or agency operated largely through purchases from private vendors or producers	

Note: Below the central line are arrangements generally referred to as public, government-owned, or nationalized. Above the line are organizational forms usually referred to as private enterprises. On the line are arrangements considered neither public nor private.

To this extent, Perry and Rainey (1988) draw these social control literatures and add third variable ‘*mode of social control*’ that asking which external hegemony has greater

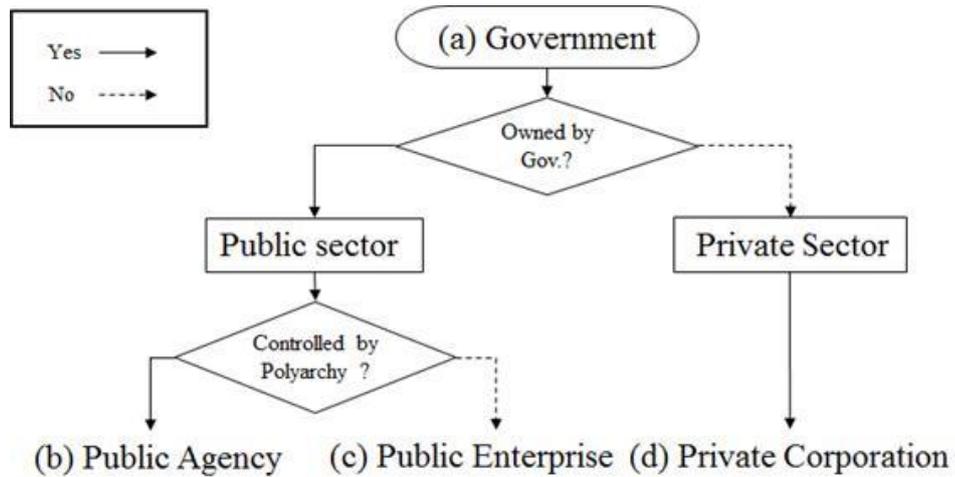
influences on major components of organization: polyarchy or markets. The former is the one controlled by governmental authority through rules and directives, the latter is the one controlled by market exchange referring consumer sovereignty (Perry and Rainey 1988). The typology of organizations with suggested the criteria are presented in Table 4.

Table 4. Typology of Organizations by Ownership, Funding, and Mode of Social Control (Perry and Rainey 1988)

	Ownership	Funding	Mode of Social Control	Example
Bureau	Public	Public	Polyarchy	Bureau of Statistics
Government Corporation	Public	Private	Polyarchy	Pension Benefit Guaranty Corporation
Government Sponsored Enterprise	Private	Public	Polyarchy	PBC
Regulated Enterprise	Private	Private	Polyarchy	Private utilities
Governmental Enterprise	Public	Public	Market	Bureau of Printing
State-Owned Enterprise	Public	Private	Market	Airbus
Government Contractor	Private	Public	Market	Grmman
Private Enterprise	Private	Private	Market	IBM

These criteria seem to be not always uniformed in theoretical or practical observed cases in various countries. Also, the mixture of each features may brought many type of organization which displayed within continuum to other ends; public and private like Dahl and Lindblom(1953) suggested. For the universality, however, this study would adopt simple distinction of Perry and Rainey (1998) typology which gives certain border line over the continuum. Then following questions could be draw to categorise organization in reality; (i) Ownership- does government own the organizations? (ii) Mode of social control- is the organization socially controlled by polyarchy (or market)?

Figure 1 Classification of Organizations by Questions



(a) **Government** (ministry, department, public service): both centrals and locals government bodies.

(b) **Public Agency** (agency, quasi-governmental institution, NDPBs): are not governmental bodies but institutions which execute, manage policy (activity) on behalf of government.

(c) **Public Enterprises** (SOE, Government enterprise and public corporation): are owned by government and regulated, but generate more than 50 percent of revenue from outside source in the market

(d) **Private Corporations**: equally refer to private sectors

The funding criteria may be less significant issues to judge public or private since no matter which type of funding from government- government grants or share-holding by government up to some of totals, it cannot help accompanying with political hegemony. Therefore, the mode of social control is unique questions to categorize them at next level. For instance, public enterprises typically show various combinations of ownership and funding status, but both governmental enterprise and state-owned enterprises presents the market exchange of products, therefore they could fall into public enterprises category. Thus, this study assumed no significant difference would exist among them. According to above questions, organization classification (Figure 1) and features is elaborated (table 5).

Table 5. Features of Classified Organization by Ownership, Funding, and Mode of Social Control

Sector	Organization Type	Ownership	Funding	Mode of Social Control
Public	Government	Public	Public	Polyarchy
	Public Agency	Public	Public	Polyarchy
	Public Enterprises	Public	Private	Market
Private	Private corporation	Private	Private	Market

2.1.3 Review on Entrepreneurship in Public Sector

Compared to intensive researches on entrepreneurship in private sector, relatively the fewer are done in public sectors. The concept of policy entrepreneur was first introduced to demonstrate policy advocacy who invest their resources in return for future policies they favour (Kingdon 1984). Some researcher such as King and Roberts (1989) attempts to categorize individual public entrepreneur into policy entrepreneurs, bureaucratic entrepreneurs, executive entrepreneurs and political entrepreneurs depending on their role within professions. Zerbinati and Souitaris (2005) also divide five types of entrepreneurs by background career-path, goal-related and management method; professional politician, spin-off creator, business entrepreneur in politics, career-driven public officer, politically ambitious public officer. They generate new idea, design, implement and be in leadership position or elected (Zerbinati and Souitaris 2005). In general, the entrepreneurship may refer to how those entrepreneurs carry their missions. However, in this study, entrepreneurship is not what single entrepreneur does but how the entire organization does.

When we revisit the definition of private corporate entrepreneurship from previous section, public entrepreneurship is not the simple matter of replacing the ‘organization’ to ‘public sector’ or ‘public organization’. Since the entrepreneurial motives in the manner of private sector may conflict with public service values, the effectiveness is still controversial

(Edwards et al. 2002). Nevertheless, entrepreneurship has meaning not only for-profit business but also for a public-service agency, a non-profit group or a governmental institution (Heinonen 2001; Fox 2008). It arises from facing many challenges for the greater profitability within contemporary hostile environment change and the limitation of past bureaucratic management in organizations (Morris and Kuratko 2002). These challenges also come for public sector as well and bring introduction of the new public management (NPM) in 1980s, which pursue efficiency gains in public sector by adopting effective practices from private sector (Hafsi, Montreal, and Bernier 2007). Therefore, NPM related themes are reflected on early arguments of public entrepreneurship, attempting to adopt business-like managerial tactic to overcome the limitation of rigid bureaucracy and to promote underperforming public service organizations (Edwards et al. 2002). Also this accord in line with the change of the ways of action in a public sector organization from planning oriented, effectiveness oriented to customer oriented (Heinonen 2001).

As the challenges that public organizations face alike with private organizations, the opportunity for innovation and entrepreneurial elements could be the feature of public organization. Because as an entrepreneurial entity (Kearney, Hisrich, and Roche 2007), public organization also allocates resources to create the value for sake of the public society while seek for the opportunities within allowed boundaries of public organizations (Morris and Kuratko 2002). Also it is fair to say that both public and private organizations have many common features such as formalized hierarchies, established stakeholder groups with competing demands, deeply entrenched cultures and procedures to guide operations, a desire for power and security, and quite rigid systems governing financial controls, budgeting and employee rewards (Morris and Jones 1999). According to the research which conducted on 152 public sector managers from south Africa, obstacles of public organizations also are much alike

with corporate one (Morris and Jones 1999).

Morris and Jones (1999) defined the public entrepreneurship as “the process of creating value for citizens by bringing together unique combinations of public and/or private resources to exploit social opportunities.” Whereas Ostrom (2004) argues that the public entrepreneurship is “a particular form of leadership focused primarily on problem solving and putting heterogeneous processes together in complementary and effective ways.” Kim (2010) defines it as ‘any attempt that creates new opportunities and carried the improvement in government performance’. Whether it is an action or process, it could be conducted by a variety of individuals - the entrepreneur (Klein et al. 2010) or become collective and systemic depending on the nature of the opportunities considered and on the context within which it takes place (Hafsi, Montreal, and Bernier 2007). The state is even considered as a broad organization in extended perspectives (Dunleavy et al. 2006). In short, the improvement would be brought by public entrepreneurship in the ways of pursuing effective way of doing things.

In practical view, Edwards et al. (2002) conduct focused group interview with fifty panel from UK public sector and draws a definition and essential characteristics. Edwards et al. (2002) reformulate the public entrepreneurship as generating social benefits to be received by society and following features are figured out; risk orientation in certain areas of public service, innovation in service delivery, leveraging of resources, the use of partnerships to create added value and problem-solving, finding and satisfying unmet needs. King and Roberts (1989) state necessary elements of public sector entrepreneurship which are the new idea and its implementation, indeed the innovation, translating the idea into some action in a new ways of doing things-law, policy, procedure or administrative structure- distinguished from old one. King and Roberts (1989) added that any business decision under conditions of uncertainty

makes chance to mistake as well as to make profit. This would mean that exploring uncertainty may be risky but profitable. As above studies figured out, the generic postures of private entrepreneurship –innovating, risk-taking, proactiveness- are all include in public organizations. Therefore, it is not far-fetched assumption that the organizational entrepreneurship is universal construct to any type of organization (Morris 1998; Morris, Kuratko and Covin 2011). Moreover, public entrepreneurship and private entrepreneurship mutually substitutes or completes each other and path dependently evolves together (Ostrom 1990; Klein et al. 2010). Therefore, entrepreneurship could be a set of solution just like private organization to satisfy social and economic needs when the public organization faces the challenges (Fox 2008).

Then how this change could be occurred? Previous researches focused on how the entrepreneurship works and evolved along the times within public organizations. Baumgartner and Jones (2002) suggest entrepreneurial behaviour facilitate the feedback loops moving to punctuated equilibrium, where positive feedback loops influence as self-reinforcing and negative feedback loops do as self-corrective mechanisms. According to Baumgartner and Jones (2002), the organizational tactics maybe adjusted toward maximising chance for success, which eventually lead to new equilibrium or otherwise return to the old one. This series of equilibrium would also become the cyclic patterns of organizational entrepreneurship. Hafsi, Montreal and Bernier (2007) suggest contingency theory of public entrepreneurship which is evolutionary cycles of institutional entrepreneurship when public sector facing challenges. The state faces and calls for different entrepreneurship of identifying-resolving-evacuating to solve different challenges; generally individual entrepreneurship for social-economic or environmental needs in the first cycle, systemic entrepreneurship for organizational effectiveness in the second and legislative entrepreneurship for legislative and managerial

needs in final cycle (Hafsi, Montreal and Bernier 2007). These three patterns of institutional entrepreneurship are observed “in the first, heroic entrepreneurs build activities and organizations. In the second, collectives transform organizations. Finally, a flowering of entrepreneurial forms leads to a clear separation of the state legislative and managerial function (Hafsi, Montreal and Bernier 2007).”

Even though the public entrepreneurship able to innovate and reach to ideal equilibrium through repeated reinforcing-corrective loops, the trial and error process is what most citizens do not want government because failures accompanied with wasting of tax money (Cohen, Eimicke, and Salazar 1999). This is major difference between private and public sector entrepreneurship. Moreover, whereas private entrepreneurship are characterize as well defined objectives, clear market signals of success (economic profit) and failure (loss), competitive selection process, public entrepreneurship is described as complicated objectives, no clear signals of performance, persevere for reasons other than customer satisfaction and shareholder wealth (Mueller 2003; Klein et al. 2010), red tape, limits on rewards (Morris and Jones 1999).

Upon these differences, application of corporate entrepreneurship to public sector organization needs to be cautious. Level of entrepreneurship should be tailored for public sector organizations, and the strategies also have to be akin to its level (Morris and Jones 1999). Also in public organization, details of organizational entrepreneurship tend to be dependent to the relationship between state and the organization considered (Hafsi, Montreal, and Bernier 2007). For example SOEs may have relatively low political pressures, which gives more flexibility to apply organizational entrepreneurship (Hafsi, Montreal, and Bernier 2007). This phenomenon implies that public entrepreneurship needs to be carefully designed and managed depending on

organizational attributes.

2.2 Corporate Entrepreneurship and Performance

Apart from works on definitions, there are attempts to establish model of corporate entrepreneurship. The concept has been analysed in multiple unit; individuals, team, organizations, communities (Fox 2008) or level; corporate, strategic business unit or functional level (Zahra 1993), organization's external and internal factors (Covin and Slevin 1991). However, ultimate dependent variable would be individual firm performance – in this thesis, organization performance, since general belief in entrepreneur activity promote economic development as well as individual firms (Covin and Slevin 1991). To figure out this relationship, not only the theoretical works but also numerous empirical studies on entrepreneurship and performance relationship have constructed various models both in private and public sector. Those works are summarised in this section and the relationship between public entrepreneurship and organizational performance would be discussed.

2.2.1 Organizational Performance

Prior to examine the relationship between entrepreneurship and performance, the meaning of performance has to be discussed. Performance would be demonstrated in two aspects; individual's behaviors in work which relevant for organizational goal and the outcomes as consequences of those behaviors (Sonnetag and Frese 2002). As the performance closely interrelated to behaviours pursuing organizational goal, the higher performance implicit the higher achievement of organizations goal, therefore, improving performance is key point of managing organizations. After NPM bring the idea of effectiveness/efficiency to public sectors, the effectiveness becomes major concern for public organization management. The term effectiveness not only refers to good results but also implies to integrate these results

through its own management, design, and other features (Rainey 2009).

Then how are the performance managed to be effective? Harrington (1994) the quality management guru, cited in Spitzer (2007), remarks that “If you can’t measure something, you can’t understand it. If you can’t understand it, you can’t control it. If you can’t control it, you can’t improve it”. From this point of views, measuring of performance is the foremost step to review current operational capabilities and corporate performance achieved against established goals and objectives. In other words, the new goals are set on the measured performance in the past for efficient and effective organization operation. Therefore, measuring performance is common issue regardless of private and public domains.

To answer these questions, various aspects for performance construct are accumulated within organizational theory and strategic management literatures (Caruana, Ewing and Ramaseshan 2002). Most frequently used variables are the firm performance as financial variables - growth and profitability, for example sales growth rate, return on assets, the profit to sales ratio (Covin and Slevin 1991) revenue, cash flow, return on equity (Li, Huang, and Tsai 2009), archived and perceived financials (Wiklund and Shepherd 2005). When we focused on the fact that performance is closely related to organization’s operation goals, the financial performance is adequate to measure private firm’s actual business operation for the private firms since its clear goal is profit generation. Similar context are applicable to public organization, however, there are another obstacles to measuring performance. Unlike the for-profit firms, public organization does not looking for financial interest. Therefore, financial measures cannot be appropriate tool for public sector performance. Particularly, quantifiable objectives-measures of performance rarely exist in public organization. And the organizational goals of public sector, generating public value via policy tool, has relatively longer time lag to be effective (Kearney, Hisrich, and Roche 2007).

Therefore comparing performance of different type is not an easy job. Fortunately, organizational management does not only affect to the financial outcomes. Zahra (1993) insists that entrepreneurial posture in the corporates may be influential to non-financial performance in early stage such as increasing motivation, task involvement, which these leads to financial performance in later stage. In entrepreneurial approaches, it can be assumed that nonfinancial goals have less straightforward and indirect impact on performance, but financial measurements and non-financial measurement does not have significant differences in explaining the performance (Rauch et al. 2009). Therefore combination of financial and non-financial measures, for example, perceived sales growth, customer satisfaction, loyalty and brand equity could be alternatives (Li, Huang, and Tsai 2009). Nonfinancial outcomes by itself could be the useful means to judge the performance as well (Wiklund and Shepherd 2005) such as retaining of key employees, delivery of new products or services for external audiences, improvement of internal processes, knowledge gathering and change management (Fox 2008).

Another non-financial measure is Public Value. Kelly, Mulgan, and Muers (2002) refer it to “the value created by government through services, laws regulation and other actions which citizens - either individually or collectively- are willing to get in return instead of their sacrifice (e.g. personal resources, taxes, time).” Kelly, Mulgan, and Muers (2002) also insist that the concept could be a yardstick to gauge the performance of public institutions. Scholars and practitioners adopt public value as means of performance measures and management framework in public sector (Diefenbach 2011). However, the public value does not necessarily be created by public sector. Rainey and Bozeman (2000) asserted, all organizations have some level of publicness. Therefore, private sector is also able to create public value when their business behaviour suit to citizen’s preference at society’s aggregate level.

In general, performing well is always the main topic of management regardless with sectors, therefore, many researches have attempted a number of different approaches to measure that. Rainey (2009) argues that one of them is participant-satisfaction approach that measuring participants' satisfaction with performance of their organization. This approaches focus on how the members of the organization internally evaluate the results comparing with shared goals and objectives, where the members can be employees, suppliers, customers, regulators and external controllers and allies (Rainey 2009). It seems to be appropriate methods to gauge the organizational performance subsequent to entrepreneurial activities, since the entrepreneurial way of action gives personal satisfaction at the individual level (Heinonen 2001). One may argue the limitation of perceptual measures. However, it is proved throughout various literature public agency performance (Caruana, Ewing. and Ramaseshan 2002; Brewer and Selden 2000; Chun and Rainey 2005) and its reliability and validity (Ketokivi and Schroeder 2004). Therefore, for the cross sectoral comparison, the model employed perceptual non-financial performance of organizations.

2.2.2. Relationship between Entrepreneurship and Performance

In previous chapters various dimensions of entrepreneurship are introduced. Not only the concepts and variables but also their relationships with organizational performance are continuous agendas in academic fields. In this stream of research some of them examine entrepreneurial orientation and performance, others do on entrepreneurial management and performance and the others even take into account entrepreneurial orientation and entrepreneurial management together. Moreover, a variety of different target group are analysed such as private firms in different industries, government department, SOEs irrespectively organization size, age, attributes and so on. Also, numerous anecdotes, consequences and its impacts on the relationship have been tested simultaneously (De Clercq,

Dimov, and Thongpapanl, 2010; Li, Huang, and Tsai, 2009). However, the purpose of this study is to compare differences of the impact among the public organizations. Therefore, the advanced research on relationship of corporate entrepreneurship and performance in different groups are mainly discussed.

Many theoretical and empirical researches provide robust evidence on positive entrepreneurial orientation -Performance relationship regardless of operationalisations for key variables as well as cultural contexts (Covin and Slevin 1991). For example, Zahra (1991) reports that corporate entrepreneurship activities may increase long term firm performance in terms of profitability, growth, and risk-related. Same conclusion is drawn from Zahra and Covin (1995) study on longitudinal analysis on corporate entrepreneurship and 108 firm's financial performance. Their study also support the positive relationship of between two variables and found out the fact that as times goes the impact are strengthen with first few years pay-off effect (Zahra and Covin 1995). In these past works, selected variables to measure the corporate entrepreneurship are entrepreneurial orientation - innovation, risk-taking and proactiveness.

Most entrepreneurial orientation-performance model done in North American context and to retest them in different cultural context is important to set the general boundary conditions and theorising (Rauch et al. 2009). Therefore, researchers from other countries have proved the universality of relationship (Wiklund 1999; Wiklund and Shepherd 2003; Rauch et al. 2009). Wiklund (1999) tests the sustainability of entrepreneurial orientation -performance relationship and again confirm the previous researches that entrepreneurial orientation have positive impact on company's performance with long-term impact ($r^2=.21$, $p<.001$). More recently, Wiklund and Shepherd (2003) holds previous ideas of entrepreneurial orientation with

knowledge based resources-performance relationship in their 384 researches on Swedish SMEs.

Compared to private sector, the empirical studies on public sector are relatively less but still few researches are done in public context. Caruana, Ewing and Ramaseshan (2002) confirm the entrepreneurial orientation -performance relationship of $\beta=0.98$ ($p<.01$) with positive mediating effect of external environment (technology turbulence, heterogeneity, munificent) and negative internal (centralization) effect in 136 public organizations in Australia. Diefenbach (2011) have reorganised past works on public entrepreneurship and report EO accompanied with anecdotes such as support, resources (staff motivation), expectation (multitude of expectations), localism have influence (.560, $<.001$) to public value orientation in terms of performance in public sector. Bakar and Maharati(2014) gauge the entrepreneurship of 246 academic leaders from 20 public universities and examine the relationship with performance, resulting $\beta=.368$ ($p<.001$).

Some works, for example, Fox (2008) considers entrepreneurial management together to measure the organizational entrepreneurship and its impact on the performance within a national educational network in U. S. Each entrepreneurial orientation and entrepreneurial management explained 32 and 21 per cent of performance variance. On the other hand, Moghaddam, Khorakian, and Maharati(2015) suggest the entrepreneurship does not exist in government organization from empirical test of the entrepreneurship consist of entrepreneurial orientation and entrepreneurial management dimensions with performance of 70 governmental organizations in the city of Machhad in Iran. Moghaddam, Khorakian, and Maharati(2015) found out that entrepreneurial orientation and two factors of entrepreneurial management (concentration, entrepreneurial culture) are not significant but the other factors of entrepreneurial management such as strategic orientation(+.343), formality(-.110), reward

philosophy(+.29) have meaningful impact on performance. They point out it may due to the fact that lack of entrepreneurial culture in Machhad government organizations or the other environment factor must cosidered (Moghaddam, Khorakian, and Maharati 2015).

Even though the measured items and methods, sectors, target are different, most accumulated studies strongly support the relationship between corporate entrepreneurship and performance. Heinonen (2001) point out that the previous experience of success oppositely affects to firms' attitude having entrepreneurship. However it would not be considered since its difficulties to measure its causality.

Table 6. Corporate Entrepreneurship-Performance Relationship in the Literatures

Study	CE	Other Variables	Performance Measures	Sample	Results
Zahra(1991)	CE	Environmental dynamism, hostility, heterogeneity, growth-oriented strategies, strategy of stability, formality, clear organizational value, systemic risk	Financial	119 of the Fortune 500 industrial firms (1986-1989)	Positive
Zahra and Covin (1995)	CE index (EO)	Environmental hostility	Financial	24 medium-sized manufacturing firms, 39 chemical companies, 45 Fortune 500 firms	Positive and strengthened over time
Wiklund (1999)	EO	Environmental dynamism Capital availability	Financial	132 Swedish small firms	$\beta = .25$ ($p < .01$)
Wiklund, and Shepherd (2003)	EO	Knowledge Heterogeneity Munificence Past performance	Perceived non-financial	384 Swedish SMEs	$r^2 = .21$ ($p < .001$).
Diefenbach (2011)	EO	Management support Resource availability Multitude of expectations Localism	Perceived non-financial	250 middle managers of German Federal Labor Agency	$\beta = .56$ ($p < .001$)
Fox (2008)	EO EM		Financial and Perceived non-financial	National educational network (Public)	Positive EO $r^2 = .32$, EM $r^2 = .21$
Bakar and Maharati (2014)	EO	Transformational Leadership	Perceived non-financial	246 academic leaders from 20 public universities of Iran	$\beta = .368$ ($p < .001$).
Moghaddam, Khorakian, and Maharati (2015)	EO EM		Perceived non-financial	70 governmental organizations in city of Machhad	Strategic orientation(.343), Formality(-.110), Reward philosophy(.29)
Caruana, Ewing, and Ramaseshan (2002)	EO	External, Internal variables	Perceived financial and non-financial	136 Australian public sector entities, governmental department	$\beta = 0.98$; $p < 0.01$

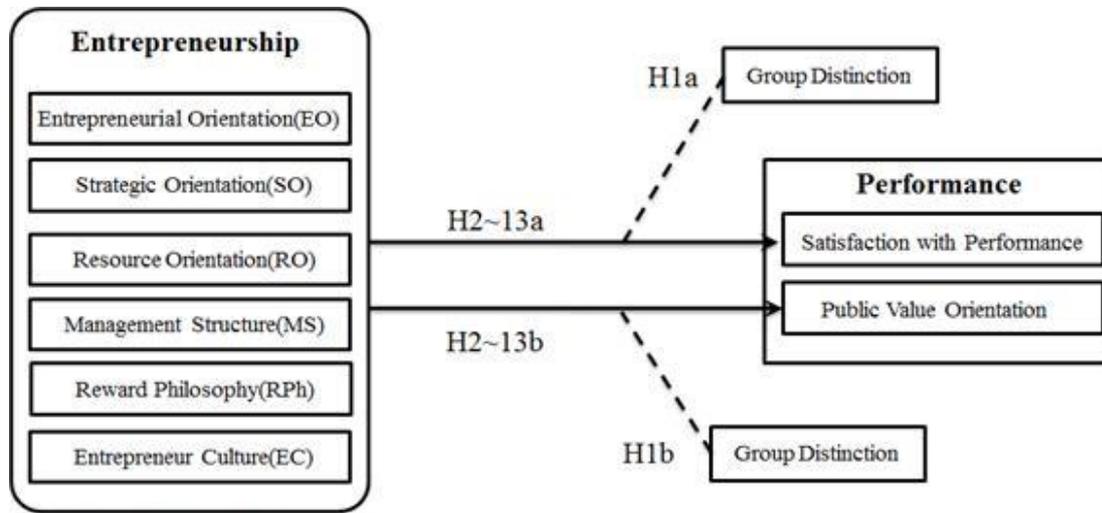
III. Hypotheses Development

The efficiency, effectiveness and performance agenda among private and public organization have been discussed more than three decades. To overcome the limitation of bureaucracy which hinders efficiency gain, the public entrepreneurship adopting business-like managerial tactic has been studied to promote underperforming public service organizations (Edwards et al. 2002). Moreover, researches on the effects of entrepreneurship on organization's performance are also major body of literatures. However, compared to private entrepreneurship researches, there are less empirical evidences supporting this relationship in public sector. Moreover those works are limited to seek the entrepreneurship and performance linkage within particular type of organization. The differences of corporate entrepreneurship between private and public organization have been dealt with but sectoral comparison of its impact is rarely done. Even though its impact in private sector has been fully supported, since adopting organizational entrepreneurship requires massive resources and initial pay-off periods, the performance improvement in public sector must be questioned in terms of efficiency and effectiveness.

To close the research gap identified above, a model and hypotheses are developed. Figure 1 demonstrates the model, which is mainly adapted from Fox (2008), who studied the organizational entrepreneurship-performance relationship in public university extent, and Moghaddam, Khorakian, and Maharati (2015). Corporate entrepreneurship construct draws from the prior studies (Miller and Friesen 1982; Stevenson 1983; Brown and Davidsson 1998) consist of two dimensions; entrepreneurial orientation and entrepreneurial management. Since this thesis aims for cross-sectional comparison between private and public sectors, the chosen performance measures should be applicable to both sectors. Therefore, perceived non-financial performance would be employed which are satisfaction with performance and public value

orientation. The model is elaborated in figure 1 and detailed demonstration on each construct would be argued following sections.

Figure 2 Model of Effect of Corporate Entrepreneurship and Performance



Note: Group distinction as Public sector and Private sector.

Note: The model is adapted from Fox (2008) and Moghaddam, Khorakian, and Maharati (2015), Group distinction as public sector and private sector

3.1 Performance

The performance constructs consist of two dimensions of satisfaction with performance and public value oriented. Since measuring the performance of both public and private organization on the same line is difficult, two views are employed simultaneously. The satisfaction with performance indicates the degree which the participants, the employees, satisfy with their organization's performance. This has the basis upon the participant's satisfaction model that the behavioural literatures take into accounts (Rainey 2009). Fox (2008) developed Performance Satisfaction index based on discrepancy theory, whereby perceptive gap between goal and realisation is a genuine measure of successful performance. Fox (2008) draws six non-financial items focusing on overall performance; retaining key employees; delivering new programs, products, or services for external audiences; improving internal

processes; gathering and using knowledge; and managing change. The other dimension is public value orientation that refers to whether the organization acts upon the public value that accord with citizen's preference at society's aggregate level. Even though those two dimensions may refer to performance, their attributes are clearly different. Therefore, satisfaction with performance (H1~18a) and public value orientation (H1~18b) would tested separately.

3.2 Sectoral Differences

In advanced chapter, the sectors are classified into distinctive groups – private and public sector according to three criteria. Even though general relationship are supported, the effectiveness in public sector is still questioned because “the entrepreneurial motives in the manner of private sector may conflict with public service values (Edwards et al. 2002)”. If general NPM ideas of incentives, autonomy, and goal clarity introduce performance management in public organizations, the organizational characteristic may mediates the effects (Hvidman and Andersen 2013). Meier and O'Tool (2011) suggest that impact of management actions may be distinctive on private and public sectors. Also, some case reports that the entrepreneurial orientation and entrepreneurial culture does not exists in government orgnaization (Moghaddam, Khorakian, and Maharati 2015). Hvidman and Andersen (2013) test relative effectiveness of managerial efforts of performance management in educational organization from both sector and find that the effectiveness of managerial efforts is different.

However, some researches support there is no sectoral differences between public and private sector. Bozeman and Kingsley (1998) test the public manger's risk-aversion, which is one of the dimensions of EO to several items as anecdotes such as political control, nature of reward systems, levels of formalisation and red tape, bureaucratic structures, and goal ambiguity. In their empirical study, result have shown that no significant sectoral difference

between public and private sector to risk taking culture, instead, the organization with high politicians influence, more red tape, weaker promote-performance relationship is more likely to risk aversion (Bozeman and Kingsley 1998). The result is interesting since politicians influence, red tape are typical attributes of public organizations. It could be assumed that the sectoral division itself does not strictly involved with the corporate entrepreneurship-performance relationship, rather certain factor influences, since public and private organizations have a lot in common. However the type of organizations may intervened the degree of entrepreneurial orientation and different appropriate strategies (Morris and Jones 1999). Thus, it would be meaningful to test whether the differences of the performance exist depending on sectors.

H1a: There is mean differences of satisfaction with performance depending on the sector.

H1b: There is mean differences of public value oriented depending on the sector.

3.3 Effect of Entrepreneurial Orientation on performance

Entrepreneurial Orientation refers to organizations' strategic attitudes in their management process. It is manifested in their decision-making styles, practices, and methods (Lumpkin and Dess 1996) in the hostile environment. Through having entrepreneurial attitudes, the organization exploits the market opportunities and ultimately yields high performance. According to Rauch et al. (2009), three variables are most frequently used-innovation, proactiveness, risk-taking. Some literatures(Lumpkin and Dess 1996; Li, Huang, and Tsai 2009) using five dimension adding competitive aggressiveness and autonomy, however there have been not enough studies to prove strong relationship (Rauch et al. 2009). Thus, all items are drawn from previous studies that heavily used three items (Covin and Slevin 1991; Zahra 1993;

Fox 2008; Diefenbach 2011; Moghaddam, Khorakian, and Maharati 2015). Most studies strongly support the relationship (Zahra 1991; Zahra and Covin 1995; Wiklund 1999; Wiklund and Shepherd 2003; Diefenbach 2011; Bakar and Maharati 2014; Caruana, Ewing and Ramaseshan 2002) irrespective to methods, sectors, target. Thus, this study hypothesizes followings.

H2a~b: Entrepreneurial orientation in public sector organization is significant to satisfaction with performance/public value orientation.

H3a~b: Entrepreneurial orientation in private sector organization is significant to satisfaction with performance/public value orientation

3.4 Effect of Entrepreneurial Management on performance

Stevenson (1983) asserts that entrepreneurial orientation dimensions alone do not present entrepreneurship enough. Therefore, he adopt opportunity based approaches to capture the entrepreneurial action of entrepreneurship (Stevenson and Jarillo 1990). Brown, Davidsson, and Wiklund (2001) suggest comprehensive framework adapted from Stevenson's Entrepreneurial management concept consist of six dimensions- strategic orientation, the commitment to opportunity, the resource commitment process, the concept of control over resources, the concept of management, and compensation policy. They are the managerial tactic to achieve higher performance established upon comprehensive understanding of management regardless with size or age of their organization (Brown, Davidsson, and Wiklund 2001). Not only in private sector entrepreneurship, but also in public manner it is believed that managerial efforts is likely to promote organization's entrepreneurial process and behaviour (Kim 2010). Therefore, the concept might be useful to review the entrepreneurship within all type of organizations.

Relatively few studies are done for entrepreneurial management dimensions. However series of studies show different result which makes the issue controversial. Some works such as Fox (2008) considers entrepreneurial management together to measure the organizational entrepreneurship and it explains 21% of firms' performance variance. Whereas Moghaddam, Khorakian, and Maharati(2015) suggest only three variables are significant out of six, which are strategic orientation, reward philosophy with positive correlation and negative with formality. Both are done within public sector therefore, it maybe controvercial whether the entrepreneurial management actually inhance the performance. Therefore, this study hypothesize peformance would be influenced in both sectors but each dimensions of entrepreneurial management, strategic oreintation, resource orientation, management structure, reward philosophy and entrepreneurial culture, would applied differently.

3.4.1. Strategic Orientation (SO)

Strategic orientation questions that which aspects are the major concerns of establishing organizational strategy. According to Stevenson and Jarillo (1990), opportunity is core of entrepreneurship and the decision making have to be done upon opportunity seeking rather than the resource currently the organization has. Many managers agree with the relationship between strategic orientation and entrepreneurial behaviour (Moghaddam, Khorakian, and Maharati 2015). Thus, this study assumed that strategic orientation upon opportunity seeking behaviour will eventually promote the performance of organization.

H4a~b: Strategic orientation in public sector organization is significant to satisfaction with performance/public value orientation.

H5a~b: Strategic orientation in private sector organization is significant to satisfaction with performance/public value orientation.

3.4.2. Reward philosophy (Rph)

Kearney, Hisrich, and Roche (2009) assert that reward may provoke the entrepreneurship by bringing motivation of individual motivations. This motivation-performance relationship is already evident in organization theory and psychology literature (Stevenson and Jarillo 1990). Therefore, appropriate reward is the most crucial factors in corporate entrepreneurship (Moghaddam, Khorakian, and Maharati 2015) as well as performance enhancement. This reward does not necessarily need to be financial rewards. Regardless of non-financial rewards (e.g. psychic income), it does promote the performance (Kim 2010). Thus, this study hypothesizes that level of reward philosophy affects to organizational performance.

H6a~b: Reward philosophy in public sector organization is significant to satisfaction with performance/public value orientation.

H7a~b: Reward philosophy in private sector organization is significant to satisfaction with performance/public value orientation.

3.4.3. Management Structure (MS)

One can seek for the opportunities without concern about the organization internal networks such as hierarchical structure or procedures. This is the central ideas of entrepreneurial management structure. Therefore, formality has been argued as restriction factor of behavioural patterns which might minimize unforeseen loss (Ingram and Clay 2000). It is because the organization might miss the chance, instead of going through the multiple layers of decision making process. Whereas empowerment which granting autonomy and votes for decision making process would increase entrepreneurial posture- risk-taking, innovativeness (Kim 2010). Thus, for better performance, the greater flexibility, adaptability, and informal management structure possibly have influences to performance. Thus, this study hypothesizes followings.

H8a~b: Management structure in public sector organization is significant to satisfaction with performance/public value orientation.

H9a~b: Management structure in private sector organization is significant to satisfaction with performance/public value orientation.

3.4.4. Entrepreneurial Culture (EC)

The culture of cooperation, creativity, independence, responsibility and risk taking (Moghaddam, Khorakian, and Maharati 2015), consistent internal and external learning track (Tosterud 2000) is features of entrepreneurial culture of organization. This might slightly overlapped with EO dimensions. But this dimension is more about the management system or methodology that organizations carry rather the spirit within organization. Corporate culture clearly has influence on performance of firms (Rashid, Sambasivan and Johari 2003). Then, how about the public sector organization? Thus, this study hypothesizes like followings.

H10a~b: Entrepreneurial culture in public sector organization is significant to satisfaction with performance/public value orientation.

H11a~b: Entrepreneurial culture in private sector organization is significant to satisfaction with performance/public value orientation.

3.4.5. Resource Orientation (RO)

The opposite direction of opportunity seeking is usually resource based decision making. When organization obsessed to given boundaries of the resource currently owned, there should be the limitation of opportunities, consequently loss of chance to success might happened. Due to the fact that public sector get yearly based government grant for pre-planning objectives, this might takes as huge obstacles. But public sector organization is also able to involve value-creation by weight entrepreneurial approach over owed resource (Caruana, Ewing and Ramaseshan 2002). This issue is not about magnitude or size of resources, but the

willingness to weight the objectives, goals, opportunities over designated resources. Thus, this study hypothesizes like followings.

H12a~b: Resource orientation in public sector organization is significant to satisfaction with performance/public value orientation.

H13a~b: Resource orientation in private sector organization is significant to satisfaction with performance/public value orientation.

IV. Research Methodology and Data Analysis

This chapter describes the research methods and results of the theoretical model developed in the previous chapter. First, the sample selection and questionnaire development with relevant measures would be described. Then the result of data analysis would be explained.

4.1 Research Method

To test the hypotheses, a questionnaire survey approach is chosen to collect data. The survey consists of four sections to measure entrepreneurial orientation and entrepreneurial management of corporate entrepreneurship, performance and general information. All items are drawn from established scales given in five-point Likert-style ranged from 1=strongly disagree to 5= strongly agree. The survey is originally constructed in English and translated into Korean. To check reliability, initial translated version is re-translated into English and compared. Also both English and Korean versions are distributed together. To enhance the logics of the established survey, selected respondents were pre-tested and interviewed intensively who are not included in final sample. To check validity, factor analysis is applied while Cronbach's α was applied to check reliability. To test the hypotheses, ANCOVA and multiple regression analysis are conducted.

4.1.1 Sample and Data Collection

Data were collected from online survey of employees who works in public and private organizations. This survey distributed to employees of both private and public sector with at least two years of experience. The questionnaire was sent out to randomly extract 612 samples and total 300 respondents were reached to the survey. After elimination of 133 dropped or incomplete samples, the final valid answers are 167 which give response rate of 27.2 percent.

4.1.2 Questionnaire Development and Measures

To measure the EO dimensions, Covin and Slevin (1989)'s instrument scale, which is heavily used in entrepreneurship research, are adopted due to its reliability. Diefenbach (2011) adjust their scale in public manner by adding three questions in each variables; innovation (often implement new approaches to meets its responsibility), proactiveness (my organization rarely behave hesitant), risk-taking (often get involved even if the outcomes is initially uncertain. Therefore her version is employed. To gauge the entrepreneurial management, Fox (2008) and Brown, Davisson and Wiklund (2001) are adopted. They originally provide the items in opposite statement scale. However, this study converts them in five point-Likert scale for consistency of variables. Among the scales, two dimensions- resource orientation and reward philosophy are given as reverse questions to avoid persistent bias. For the performance construct, selected items from Fox (2008)'s scales for satisfaction with performance and public value orientation scales of Diefenbach (2011) are adapted.

Table 7. Questionnaire Items on Corporate Entrepreneurship Dimensions

Construct	Dimensions	No. of Questions	Adapted from
EO	Innovation	3	Covin and Slevin(1989), Diefenbach (2011)
	Proactiveness	3	
	Risk-Taking	4	
EM	Strategic Orientation	3	Brown, Davidsson, and Wiklund(2001), Fox(2008)
	Reward Philosophy(R)	2	
	Management Structure	6	
	Resource Orientation(R)	4	
	Entrepreneurial Culture	3	
Perceptual Performance	Satisfaction with performance	6	Fox(2008)
	Public Value Oriented	5	Diefenbach (2011)
General	Organization	3	-
	Respondent	4	

Note: (R) means reverse questions

4.2 Data Analysis

Sample distribution and the result of hypotheses testing would be suggested in this section.

4.2.1 Descriptive Statistics

The descriptive statistics of valid 167 samples are displayed in Table 8. In terms of organization size, more than half of the samples are from large organizations with above 1,000 employees. But at the same time, organization less than 10 employees takes second place. 36.5 per cent of respondents' organizations have been operated for more than 30 years while only 9 (5.4 per cent) organizations established five years ago. For the respondents feature, employees above middle manager level have replied most with 48.5 per cent of total respondents. All of the respondents receive higher than university level educations. And male and female rate are relatively even with 59.3 and 40.7 per cent each. Most of them are below in their 40s.

Table 8. Descriptive Statistics of Control Variables

Category	Variables	Category	Frequency	Percent
Organization	Organization Type	Government	36	21.6
		Public Agency	39	23.4
		SOE	33	19.8
		Private Firms	59	35.3
	Organization Size	More than 1,000 employees	86	51.5
		300~999 employees	14	8.4
		20~299 employees	19	11.4
		10~19 employees	22	13.2
		Less than 10 employees	26	15.6
	Organization Ages	More than 30 years	61	36.5
		20~29 years	30	18.0
		10~19 years	43	25.7
		5~10 years	24	14.4
		Less than 5 years	9	5.4
	Respondent	Leadership Position	Employee	50
Lower manager			36	21.6
Middle manager			64	38.3
Top manager			17	10.2
Education status		Graduate School(PhD)	13	7.8
		Graduate School(Master)	98	58.7
		University	56	33.5
		High School	0	0
Gender		Male	99	59.3
		Female	68	40.7
Age		20-30	42	25.1
		31-40	57	34.1
		41-50	49	29.3
		51-60	16	9.6
		More than 60	3	1.8

4.2.2 Hypothesis Testing

Before the hypotheses are tested, exploratory factor analysis is employed to reduce several dimensions of each construct. The principal component technique with varimax rotation is chosen for extracting a feasible factor structure using observed items. The initial result shows that one item ($R_{sk10}=.352$) has lower communalities than 4.0. Thus, the item was dropped and the data are re-analysed. Final result gives each entrepreneurial dimension loaded on 6 factors with an eigenvalue greater than 1.

Table 9 Factor Loadings of Entrepreneurship Constructs

Intended Construct	Items	1	2	3	4	5	6
EO	Inn1	.736					
	Inn2	.763					
	Inn3	.723					
	Pro1	.725					
	Pro2	.720					
	Pro3	.582					
	Rsk1	.551					
	Rsk2	.601					
	Rsk3	.545					
EM	SO1		.700				
	SO2		.705				
	SO3		.644				
	Rph1			.806			
	Rph2			.696			
	Rph3			.805			
	MS1				.727		
	MS2				.833		
	MS3				.665		
	MS4				.649		
	MS5				.493		
	EC1					.815	
	EC2					.679	
	EC3					.740	
	RO1						.465
	RO2						.764
RO3						.726	
RO4						.554	

Note: Principal components analysis, Rotated with Varimax with Kaiser Normalization.

In the same context, for the performance dimensions, one item which has low communalities (PV6=.264) is eliminated and finally 2 factors are structured. This result verifies the suitability of survey. According to Hari et al. (2009), sample size above 150 to 200 requires factor loadings between .40~.45 at significant level .05. Therefore, all the loading values are acceptable which explains 65% of total variance. The reliability test are conducted on structured factors and resulting acceptable level of Cronbach's alpha; entrepreneurial orientation ($\alpha = .908$), strategic orientation ($\alpha = .806$), reward philosophy ($\alpha = .839$), management structure ($\alpha = .847$), entrepreneurial culture ($\alpha = .734$). Resource orientation

shows slightly lower coefficient ($\alpha = .587$), however, because it is close to .60 with high correlation, inclusion of resource orientation scale is acceptable. Therefore reliability of all the scales is proven. From now on these factor loadings are used in subsequent analyses.

Table 10 Factor Loadings of Performance Construct

Intended Construct	Items	1	2
Organization Performance	Pfm1	.659	
	Pfm2	.778	
	Pfm3	.766	
	Pfm4	.826	
	Pfm5	.665	
	Pfm6	.738	
	PV1		.853
	PV2		.783
	PV3		.837
	PV3		.855
	PV4		.858
	PV5		.727

Note: Principal components analysis, Rotated with Varimax with Kaiser Normalization.

Before testing the relationship among variables, analysis of covariance (ANCOVA) is conducted to test the hypotheses (H1a~b) concerning mean differences of performance depending on sectors with fixed effect of other independent variables. This aims to verify the availability of different regression lines for each sector. In Table 11, the result of ANCOVA on satisfaction with performance indicates a significant sectoral difference ($p < .01$). Therefore, H1a is accepted. Post hoc test revealed that private sector reported higher levels of satisfaction with performance than public sector. The mean differences is also confirmed on public value orientation ($p < .001$), where public sector relatively has higher public value orientation than private sector. Therefore, H1b is accepted. With the sectoral differences, covariates also are significant on performance construct. Four covariate entrepreneurial orientation ($p < .001$), reward philosophy ($p < .001$), management structure ($p < .001$) and entrepreneurial culture ($p < .05$) have meaning to satisfaction with performance. For the public value orientation,

entrepreneurial orientation ($p < .01$), reward philosophy ($p < .05$) and strategic orientation ($p < .001$) are significant. This means except resource orientation, all other covariate have meaning to performance constructs depending on sectors. Then, it brought another questions of how and how much they are related.

Table 11 Result of Analysis of Covariance

Dependent	Source of variance	Type III sums of squares	df	Mean square	F	Partial η^2	R ² (Adj. R ²)
Satisfaction With Performance	Entrepreneurial orientation	14.671	7	9.760	23.881***	.131	.412 (.386)
	Strategic orientation	.447	1	8.370	.728	.005	
	Reward philosophy	8.370	1	.572	13.625***	.079	
	Management structure	26.369	1	14.671	42.921***	.213	
	Entrepreneurial culture	2.470	1	26.369	4.020*	.025	
	Resource orientation	.001	1	.001	.002	.000	
	Sector	6.317	1	6.317	10.282**	.061	
Public Value Orientation	Entrepreneurial orientation	6.650	7	6.650	8.518**	.051	.252 (.219)
	Strategic orientation	12.503	1	12.503	16.014***	.092	
	Reward philosophy	3.676	1	3.676	4.580*	.028	
	Management structure	.668	1	.668	.856	.005	
	Entrepreneurial culture	.044	1	.044	.056	.000	
	Resource orientation	.192	1	.192	.246	.002	
	Sector	16.939	1	16.939	21.696***	.120	

Note: *** $p < .001$, ** $p < .01$, * $p < .05$

To test relationship among entrepreneurship dimensions and two different dependent variables in each sectors (from H2a~b to H13a~b), multiple regression is conducted. The overall results show that F-value is significant at p-value 0.05, Durbin-Watson score is close to 2 and VIF score is lower than 10. Therefore the independent and multicollinearity assumptions are satisfied. The normality of residuals is visually confirmed with Q-Q plot. Since all the assumptions are satisfied, the all four models are suitable for regression analysis. The statistics of the models would get better when less significant variables are eliminated. However, this study includes all the variables to see and compare how the variables influence to different performance dimensions as well as the sectors.

The models for private organizations are tested first and the results are presented in Table 12. Only the reward philosophy is significant to higher performance ($p < .05$) and model has relatively strong fitness ($R^2 = .213$). Therefore, only H7a are accepted. However, entrepreneurial orientation shows relatively smaller p-value (.075) compared to other variables, therefore it is possible to concern that entrepreneurial orientation has somewhat positive influences to dependent variables. This result supports many previous findings that entrepreneurial orientation affects to firm performance in positive way. Regards with public value orientation and the variables ($R^2 = .225$), only the management structure is significant at level of .01 and has strongest negative impact. Thus, only H9b are accepted.

Table 12 Result of Regression Analysis of Private Organizations

Dependent	Dimension	β	SE	R ² (Adj. R ²)	F
Satisfaction With Performance	Entrepreneurial orientation	.226	.101	.213 (.122)	2.343*
	Strategic orientation	.194	.112		
	Reward philosophy	.292*	.112		
	Management structure	.080	.093		
	Entrepreneurial culture	.122	.104		
	Resource orientation	.119	.100		
Public Value Orientation	Entrepreneurial orientation	.200	.110	.225 (.136)	2.519*
	Strategic orientation	.078	.122		
	Reward philosophy	.136	.122		
	Management structure	-.341**	.102		
	Entrepreneurial culture	-.119	.114		
	Resource orientation	-.005	.109		

Note: *** p<.001, ** p< .01, * p< .05

Table 13 suggests the result of multiple regressions in public organizations. The model of Satisfaction with performance in public sector explains 45 per cent of variance and has four significant dimensions: entrepreneurial orientation (p<.001), strategic orientation (p<.01), reward philosophy (p<.001), and entrepreneurial culture (p<.01). Thus, H2a, H4a, H6a, H10a are accepted which states positive linear relationship among entrepreneurial orientation, strategic orientation, reward philosophy, entrepreneurial culture and satisfaction with performance. Among them reward philosophy (β =.506) has strongest impact on performance then entrepreneurial orientation comes after (β =.382). Public value orientation of public organization is significant to entrepreneurial orientation (p<.01), strategic orientation (p<.001), management structure (p<.05). Thus, H2b, H4b and H8b are accepted. Except for entrepreneurial orientation (β =.216), which are positively associated with public value orientation, the other variables have negative effect on public value orientation.

Table 13 Result of Regression Analysis of Public Organizations

Dependent	Dimension	β	SE	R² (Adj. R²)	F
Satisfaction With Performance	Entrepreneurial orientation	.382***	.076	.450 (.417)	13.761***
	Strategic orientation	.239**	.075		
	Reward philosophy	.506***	.076		
	Management structure	.015	.083		
	Entrepreneurial culture	.174**	.079		
	Resource orientation	-.064	.076		
Public Value Orientation	Entrepreneurial orientation	.216**	.090	.169 (.119)	3.412**
	Strategic orientation	-.262***	.088		
	Reward philosophy	.079	.089		
	Management structure	-.238*	.097		
	Entrepreneurial culture	-.002	.093		
	Resource orientation	-.068	.090		

Note: *** p<.001, ** p< .01, * p< .05

V. Conclusion

The purpose of this paper is to examine the relationship among entrepreneurial dimensions such as entrepreneurial orientation, entrepreneurial management elements and organizational performance. The results show that the performance level is different depending on sectors. This study also finds that effects of entrepreneurial orientation, reward philosophy, management structure, strategic orientation and entrepreneurial culture differ public sector from private sector. However, resource orientation does not show significance with sectoral differences in both performances construct: satisfaction with performance and public value orientation. This study also reveals that influential entrepreneurship dimensions on performance are different in all four models; including six entrepreneurial dimensions with satisfaction on performance and public value orientation both in private and public sectors. In private sector, entrepreneurial orientation and reward philosophy have positive effect on satisfaction with performance. Only management structure affects negatively to public value orientation. In public sector, the results are more prominent. Effects of entrepreneurial orientation, strategic orientation, reward philosophy and entrepreneurial culture on satisfaction with performance show significance, while effects of entrepreneurial orientation on public value orientation show positive and effects of strategic orientation and management structure on public value orientation show negative.

The findings of the study include that first, regardless with the sector, entrepreneurial action leads to overall performance enhancement. This result confirmed that previous researches of positive relationship between EO and organization's performance not only in private but also in public sector (Caruana, Ewing. and Ramaseshan; 2002, Fox 2008; Bakar and Maharati 2014). But this study also finds that entrepreneurial orientation has no sign of effects with public value orientation in private sector. Since entrepreneurial orientation respond

to organizational interest, it seems to be only effective when the performance considered is relevant to organizational objectives. Second, entrepreneurial management generally have positive impact on satisfaction with performance in both sectors. In particular, appropriate reward based on performance would increase organizational performance that employees perceived in private as well as public sectors. Strategic orientation and entrepreneurial culture, which are only effective to public sector, lead to higher satisfaction with performance. Third, entrepreneurial management seem to be somewhat discourage the public value orientation. To be specific, informal management structure may decrease public value in both sectors. Meanwhile strategic orientation, which has negative impact on public value, is only meaningful in public sector.

The result partially support Moghaddam, Khorakian, and Maharati (2015)'s assertion that strategic orientation, reward philosophy in positive way and formality in negative way influence to public orgnaizational performance. Both studies confirmed that management structure somewhat influences the performance in public sector. However, it is interesting that the effect of management structure shows different directions. Of course, the fact has to be considered that their study sets management structure variable as formality, while this study refer management sturcture to informality and flexibility. This defferences possibly comes from the fact that effect of variables-management sturcture get clearer with the detailed classification of performance consturct in this study. In the other words, informality may have positve impact in general performance such as employee retention and satisfaction, but negative effects on public value oriented behavior. This implies the high flexibility and involvement of decesion making process somehow provide possiblity that the individual act on be half of their own interest, so-called agent problems.

The finding of this study provides several implications to organizational management in both sectors. Raising entrepreneurial orientation is recommended to both sectors to increase organizational performance, especially the one relevant with its goal. Also managerial efforts should be made on appropriate reward system to enhance employees' perceived performance in both sectors. More importantly, unlike private sector, for the public sector the appropriate level of formality have to be brought into management structure to increase public value orientation which explains identity of public organization.

This study contributes to literature with following points. First, this study includes entrepreneurial orientation and entrepreneurial management as well as two different performance constructs such as satisfaction with performance and public value orientation. Both performance constructs have been examined separately in entrepreneurial orientation, entrepreneurial management-performance (Moghaddam, Khorakian, and Maharati 2015), and entrepreneurial orientation-public value orientation (Diefenbach 2011). However, this study tests both constructs to measure different effects of variables and enables clear comparison analysis. Second, this study also provides empirical evidence of public and private sector comparison with corporate entrepreneurship. There are some researches compare the impact of performance management (Hvidman and Andersen 2013), behaviour concept (Steinhaus and Perry 1996) or organization management features (Meier and O'Toole 2009), while empirical comparison within the context of organizational entrepreneurship rarely exist.

The limitations of this study include that the model has not considered external environmental change, adopting assumption that environmental change is same conditions for both sectors in aggregate society. However, the degree and type of such challenges that public and private organizations face might be different. According to Kearney, Hisrich, and Roche

(2007), measures of entrepreneurial posture as well as performance must be sophisticatedly designed to capture the distinct types of opportunities in the public sector organizations. However, the model in this study applies established scales with a little adjustment for sectoral differences. Finally, relatively small number of samples for private sector organization might undermine the effect.

Therefore, this study suggests further researches. The total inclusion of external factor could explain the differences of impact from external environment. Moreover, due to their advanced research stream and political background the practical and academic researches has been conducted under the name of public entrepreneurship mainly in North America and Europe (Edwards et al. 2002). However it is likely to be cultural differences among nations, particularly for useful management tactic for entrepreneurship. Therefore, cross-cultural analysis may be an interesting topic. Also public organizations are generally heterogeneous, therefore simple public/private dichotomy for empirical research is not always appropriate (Steinhaus and Perry 1996). In earlier part, this study categorize public sector into government, agency and extend SOEs Thus, proposed hypotheses in this study might be tested on those hybrid organizations within public organization.

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APPENDIX

APPENDIX A

Survey Questionnaire

Corporate Entrepreneurship and Performance in private/public sector

In this risky world, the corporate entrepreneurship, entrepreneurship within existing organization seeking opportunity, is considered as a mean to yield better performance not only in private sector but also in public sector. This study examines the relationship on corporate entrepreneurship and performance in private and public sector.

Your kind response will be utilized as valuable data for the thesis for master degree. Therefore, please answer carefully to each question about your organization. This survey consist of four section; corporate entrepreneurship, organization performance and general information. It will take about 7 minutes to complete this survey. All the answers are confidential and anonymous, please answer them frankly. Any inquires for this survey will be welcomed to following contacts;

Thank you.

Moonju Kwon (particular.mj@gmail.com, mjkwon@kiet.re.kr)

Section 1: Organizational Entrepreneurship

Please respond as candidly as possible to the following statements by ticking on five point scales that best represents as it was during the past five years. In order to get a complete assessment of organizational entrepreneurship, this study explores both entrepreneurial orientation and entrepreneurial management.

1.1 Entrepreneurial Orientation:

This part of the scale is based on Miller and Friensen(1982), Covin and Slevin(1996)'s extensively tested scale that includes a combination of three sub-dimensions: innovativeness, proactiveness, and risk-taking.

A. Innovation

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1. Changes in products or services happens frequently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Our organization frequently markets new products/services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Our organization often implement new approaches to meet its responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. Proactiveness

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
4. Typically, our organization initiates actions which other organizations respond to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Compared to similar organizations, we are often the first to introduce new products or services, administrative techniques, operation technologies, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Our organization rarely behaves hesitant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C. Risk-Taking

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
7. Our top leaders have a strong tendency to pursue high-risk projects (with chances of very high returns).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Our top leaders believe that, owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the organization's objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. When confronted with decision-making situations involving uncertainty, we typically adopt a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Our organization often get involved even if the outcome is initially uncertain.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1.2 Entrepreneurial Management:

This part of the scale is based on Stevenson(1983)'s contrast of opportunity seeking behaviors of promoter-type firms that pursue and exploit opportunities regardless of resources controlled with trustee-type firms that focus on efficiently using resources controlled.

D. Strategic Orientation

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
11. As we define our strategies, we are driven by our perception of opportunity. We are not constrained by the resources at(or not at) hand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Our fundamental task is, not limited to our current resources, to pursue opportunities we perceive as valuable and then to acquire the resources to exploit them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Opportunity control our business strategies than resources we have.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

E. Resource Orientation

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
14. Since our objective is to use our resources, we will usually invest heavily and rapidly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. We prefer to totally control and own the resources we use, not just the ability to use them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. We prefer to only use our own resources in our organization than borrowing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. In exploiting opportunities, access to money is more important than just having the idea.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

F. Management Structure

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
18. We prefer loose, informal control. There is a dependence on informal relations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. We strongly emphasize getting things done even if this means disregarding formal procedure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. We strongly emphasize adapting freely to changing circumstances without much concern for past practice/principles/norms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Manger's operating styles are allowed to range freely from very formal to very informal throughout the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. There is a strong tendency to let the requirements of the situation and the personality of the individual dictates proper job behavior, rather than adhere to formal job descriptions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

G. Reward Philosophy

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
23. Our employees are evaluated and compensated based on the value they add to the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. We try to compensate our employees by devising ways for them to benefit from the increased value of the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. An employee's standing is based on the value s/he adds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

H. Entrepreneur Culture

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
26. We find it difficult to find a sufficient number of promising ideas to best utilize all of our resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. The products and services we offer cannot be linked to information about customers, the market, and/or changes in society-at-large.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. It is difficult for our organization to find creative ideas that can be converted into products/services that are valued by our key stakeholders.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 2: Organizational Performance

Understanding and improving performance is a central aim of corporate entrepreneurship. Because performance is multidimensional in nature both in financial and non-financial. For this performance construct in this study consists of two non-financial indicators since universal application to both private and public sector. All information will remain confidential.

2.1. Satisfaction with Performance

Some of the very best managerial actions do not yield measurable financial performance but they define the organization and give meaning to its different activities. Satisfaction is a fundamental measure of the perception of successful performance. Please respond as candidly as possible to the following statements by check a numbers in 5 point scales that best represents your organization as it was during the past five years.

	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
1. Overall performance- overall performance of your organization based on outputs&impacts	<input type="radio"/>				
2. Retaining key employees- ability of your organizations to keep the organization's best&most talented people	<input type="radio"/>				
3. Delivering quality products and services for external audiences- including new programs, new delivery methods and reaching new people.	<input type="radio"/>				
4. Improving internal processes- such as new operational structures or new methods to process financial transaction, enhance communications, or create efficiencies in workflow.	<input type="radio"/>				
5. Gathering and using knowledge- such as market research, new advisory groups, trend reports or tother approaches that provide extension personnel with timely and quality information for decision-making	<input type="radio"/>				
6. Managing change- personnel throughout our organization enhance organizational performance by being attentive to external changes and leading internal changes in structure, strategy and operational methods.	<input type="radio"/>				

2.2. Public Value Orientation

In view of the above evaluated entrepreneurial orientation and management, rate your organization in comparison to other organization. My organization in comparison to other organization...

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Consistently focusses on public value	<input type="radio"/>				
2. Creates high public value beyond figures and data within the legal mandate.	<input type="radio"/>				
3. Contributes sustainably to public value	<input type="radio"/>				
4. Is a reliable cooperation partner in the region	<input type="radio"/>				
5. Is a trustworthy institution	<input type="radio"/>				
6. Significantly shapes public opinion regarding the labor market.	<input type="radio"/>				

Section 3 General Information

1. (Organization) Choose the closest classification to your organization.

- Government: meaning central and local governmental bodies
- Public Agency: the institutions operate on behalf of government
- State-Owned Enterprises(SOEs)
- Private corporation: any type of for-profit firm

2. (Organization) Which is your organization size group?

- More than 1000 employees
- 300~999 employees
- 20~299 employees
- 10~19 employees
- Less than 10 employees

3. (Organization) Which is your firm age?

- More than 30years
- 20~29 years
- 10~19 years
- 5~10 years
- Less than 5 years

4. Which is your leadership position?

- Employee
- Lower manager
- Middle manager
- Top manager

5. Which is your last education status?

- Graduate School(PhD)
- Graduate School(Master)
- University
- High school

6. Which is your gender?

- Male
- Female

7. Which is your age group?

- 20-30
- 31-40
- 41-50
- 51-60
- More than 60

***** Thank you for your cooperation *****