The Antecedent Effects of Human Resource Development Capability of Auto Parts Businesses in Thailand
ผลกระทบของปัจจัยเชิงสาเหตุของความสามารถด้านการพัฒนาทรัพยากรมนุษย์ของธุรกิจชิ้นส่วนยานยนต์ในประเทศไทย

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Abstract

The purpose of this research is to investigate the effects of internal and external factors on human resource development capability. Data were collected 128 from 618 auto parts businesses in Thailand using questionnaire mail survey. The statistic techniques was analyzed by multiple regression analysis employed to examine all hypotheses. The results indicate that transformational leadership orientation, organizational resource readiness, information technology capability, and environmental complexity force have significant influences on human resource development capability. Moreover, conclusion and suggestion for future research will be discussed. Both theoretical and managerial contributions and limitation are clearly provided.

Keywords: Human Resource Development, Transformational Leadership Orientation, Human Capital Policy, Organizational Resource Readiness, IT Capability, Environmental Complexity Force

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อทดสอบปัจจัยภายในและปัจจัยภายนอกที่ส่งผลต่อความสามารถด้านการพัฒนาทรัพยากรมนุษย์ เก็บรวบรวมข้อมูลจำนวน 128 จากทั้งหมด 618 กิจการของธุรกิจชิ้นส่วนยานยนต์ในประเทศไทยโดยใช้การส่งแบบสอบถามทางไปรษณีย์ การวิเคราะห์ข้อมูลใช้การวิเคราะห์เชิงถดถอยในการทดสอบสมมุติฐาน ผลการวิเคราะห์ระบุว่า การมุ่งเน้นภาวะผู้นำแบบเปลี่ยนแปลง ความเพียบพร้อมของทรัพยากรขององค์กร ความสามารถด้านเทคโนโลยีสารสนเทศ และแรงกดดันของความซับซ้อนของสิ่งแวดล้อม มีอิทธิพลเชิงบวกต่อความสามารถด้านการพัฒนาทรัพยากรมนุษย์ นอกจากนั้นผลการศึกษานี้ยังสามารถใช้เป็นข้อสรุปและแนวทางของงานวิจัยในอนาคต รวมทั้งด้านทฤษฎีและเชิงปฏิบัติ และข้อจำกัดในงานวิจัย

คำสำคัญ: การพัฒนาทรัพยากรมนุษย์ การมุ่งเน้นภาวะผู้นำการเปลี่ยนแปลง นโยบายด้านทุนมนุษย์ ความเพียบพร้อมด้านทรัพยากรขององค์กร ความสามารถด้านเทคโนโลยีสารสนเทศ แรงกดดันจากความซับซ้อนของสิ่งแวดล้อม

Introduction

Nowadays, world societies are collected in the single society by the link effects of technology, politics, economy and social-culture cause business firm to face with the competitive radical change (Schmitt & Klarmer, 2015). Business firm is needed to achieve a sustainable competitive advantage by its supply and effective use of resources both tangible and intangible resources (App, Merk & Büttgen, 2012). Technology, manufacturing process, products, service, and strategy are resources that are valuable and easy to be copied but human resource is difficult to copy and there is a unique competitive advantage (Pfeffer, 2000). Henry Ford (Radhakrishna & Raja, 2015) stated that “Take out my building, my machines and all capitals but leave my men with me I will become Henry Ford again”. Human resource contributions emphasize fuller integration of analysis relationship human resource with firm performance outcome (Jain & Gulati, 2016).

Human resource development (HRD) system is a sub-set of human resource management (Jain & Gulati, 2016). HRD is a process of developing and unleashing skill or ability for driving of improving employee, team, operational process, and firm performance (Swanson, 2001). It is the cause of employee, team ability development and the cause of sustainable competitive advantage (Jain & Gulati, 2016). Contingency theory shows that the nature of firm capability is improved by examining its antecedents in terms of both internal and external factors (Atuahene-Gima & Murray, 2004). HRD is influenced by many of concerned internal factors. (For example, transformational leadership orientation, human capital policy, organizational resource readiness and information technology capability) and external factor of environmental complexity force (Azadegan, Patel & Zangoueinezhad, 2013; Kratzer, Gemunden & Lettl, 2008; Norton, Zacher & Ashkanasy, 2014; Vermeeren, 2014).

From literature review, it has very little researches that study in the best characteristic of effective human resource development. In this research, the concept of human resource development capability is integrated, proposed, and defined as best characteristic of human resource development systems that can be successful in developing human resources working in an organization by modernizing their knowledge and upgrading their skill, attitudes and perceptions. Several context variable influence on HRDC of organization. The context of internal and external environment as antecedents are taking effect on HRDC.

Research Objectives

This research aims to investigate the effects of transformational leadership orientation, human

capital policy, organizational resource readiness, information technology capability, and environmental complexity force on human resource development capability in Thai auto parts businesses. The main question is "How do transformational leadership orientation, human capital policy, organizational resource readiness, information technology capability, and environmental complexity affect human resource development capability?"

Literature Review and Hypothesis Developments

The contingency theory is widely employed to examine the various endogenous and exogenous factors of firm capability (Wallace & Kreutzfeldt, 1991). This theory is applied to explain the effects of internal and external factors on human resource development capability (Figure 1). The definitions of each variable are explained as follows.

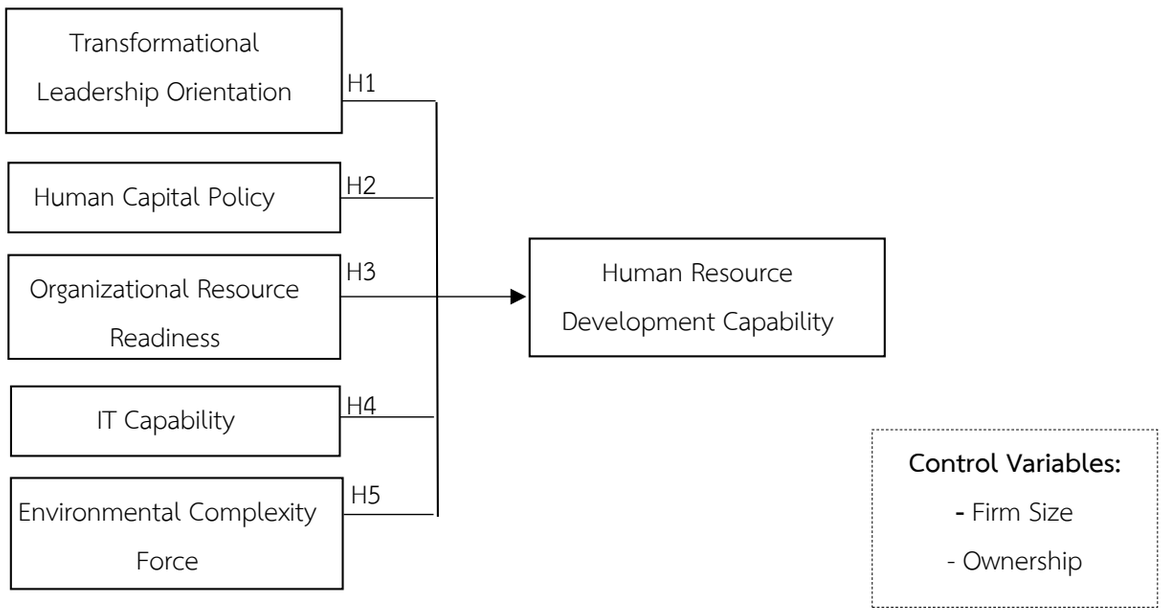

Figure 1 : A Conceptual Framework

Transformational Leadership Orientation

Transformational Leadership Orientation (TLO) is defined as leadership behavior of organization that focused on leaers' roles to employees, leader that motivated inspiration of employees, stimulated the intellectual of subordinate and considered in individual of employee's problem (Bass & Avolio, 1989; Waldman, Ramirez, House & Puranam, 2001). The transformational leadership increases job satisfaction of employee with the training intention that leads to a positive attitude which is shared between leader and follower (Barling, Weber, & Kelloway, 1996). The role of transformational leadership focuses on the training to motivate employees to work better efficiently (Hassan, Fuwad & Rauf, 2010). It enhances a perceived HRM of individual level of employee (Vermeeren, 2014). Therefore, the proposed framework above demonstrates a significant trend, and leads to the hypothesis as follows:

H1: Transformational leadership orientation is positively related to human resource development capability.

Human Capital Policy

Human capital policy (HCP) is defined as the awareness and place the importance of organization in knowledge, skill, ability, and other characteristic of organization that is important and impacts to organizational operation and perfor-

mance (Bailey, 2011). Human capital policy is affected to behavior and operation of employee (Norton, Zacher & Ashkanasy, 2014). The policy of human capital is the impact to strategic, tactical and organizational operation and performance (Wognum, 2001). Human capital policy in the strategic level with top management is served as starting point for HRD processes (Tjepkema & Wognum, 1999). Therefore, the proposed frame work above demonstrates a significant trend, and leads to the hypothesis as follows:

H2: Human capital policy is positively related to human resource development capability.

Organizational Resource Readiness

Organizational resource readiness (ORR) is defined as firm ability in the completion and fruitfulness of both tangible and intangible factor for supporting the operation of firm process to achieve organizational goal including allocating the existence of any resource of organization to maximize benefits (Ray, Barney & Muhanna, 2004). It is shared resource; the updated information has been shared over the organization where the capability creates new service, product and processes (Kratzer, Gemunden & Lettl, 2008). The resource readiness in the part of employee work processes impacts to perception and awareness of employees to human resource management and development (Garg, 2015). The organizational resource planning system is the implementation in employee development and processes in organization (Abdinnour-Helm, Lengnick-Hall & Lengnick-Hall, 2003). Therefore, the proposed framework above demonstrates a significant trend, and leads to the hypothesis as follows:

H3: Organizational resource readiness is positively related to human resource development capability.

Information Technology Capability

Information technology capability (ITC) is defined as organization ability of infrastructure in collecting, processing, storing, analyzing, integration and utilization the related information with organizational operation to support the decision-making and achievement of organizational goal (Mark & Su, 2010). IT enhances the capability of effective action in the market and it is an important factor for dynamic technology and change (Wene, 2007). It creates business growth and supports the operational activities such as strategic cost management in an organization includes supporting the role of the human resource (Snellen, 2012). IT capability can be used to develop competitive product, service and process as well as to improve decision-making processes. It improves human resource management and development system, operation and planning decision (Broderick & Boud reau, 1991). IT capability is significant relationship on human resource management capability (Turulja & Bajgoric, 2016). Therefore, the proposed framework above demonstrates a significant trend, and leads to the hypothesis as follows:

H4: Information technology capability is positively related to human resource development capability.

Environmental Complexity Force

Environmental complexity force (ECF) is defined as the perception level of variation business conditions that has uncertainty and instability or heterogeneity of external factors that are involved by the organizational potential to continuous perception to explain things, rapid changes, and adaptation to survive in change effectively (Ashill & Jobber, 2014; Cannon & John, 2007). The environmental complexity force is affected on decision -making in state uncertainty and developing process (Ashill & Jobber, 2014). It influences on orga-

nizational work and skill and affects to context and practice of training, development and human resource development (Garavan, et al., 2008). It is a positive effect to lean procedures and gain on operating performance (Azadegan, Patel, Zangoueinezhad & Linderman, 2013). Therefore, the proposed framework above demonstrates a significant trend, and leads to the hypothesis as follows:

H5: Environmental complexity force is positively related to human resource development capability.

Human Resource Development Capability

Human resource development capability (HRDC) refers to the best characteristics of HRD systems that consist of employee competency analysis, individual ability support, continuous learning enhancement, strategic-development connectivity, and innovation creativity focus (Alagaraja & Egan, 2013; Ambrozova, Koleňák & Pokorný, 2016; Armstrong & Foley, 2003; Ehlen, et al., 2013; Huda, Anika & Khaled, 2014) which is successful in developing human resources working by modernizing their knowledge and upgrading skills, attitudes and perceptions.

Research Methodology

The sample is auto parts businesses in Thailand. Based on the database of the Thai Auto Parts Manufacturers Association. There are 618 auto parts businesses (Thai Auto Parts Manufacturers Association, 2016). This research used auto parts businesses as a population because it is one of businesses that drives Thai economy and represents highly competitive industries (Sriboonlue & Ussahawanitchakit, 2014). The criteria of ISO9001/TS 16929 that regards human resources (HR) are consistent with the research topic (Hekelova & Srdosova, 2009). The questionnaires mailing was used in data collection and HR managers or directors are key informants. Valid mailing was 593 surveys. Finally, 128 complete questionnaires were usable for analysis. The effective response rate was approximately 21.59 percent. Aaker, Kumer & Day (2001) suggest that the average mail survey response rate should be more than 20 percent. Therefore, response rate level is acceptable.

The non-response bias test was used to compare the firm characteristic of early and late respondents by chi-square test (Armstrong & Overton, 1977). It can be confidently mentioned that non-response bias is not a serious problem.

Measurements

The five point Likert scale was used for measurement of all construct, ranging from 1 (strongly disagree) to 5 (strongly agree). The questions of all constructs were developed to measure by the definition of each construct and demonstrated the relationship from theoretical framework and previous literature reviews. The variables measurement is shown as follows.

Dependent Variable

Human resource development capability is measured through HR manager and/or director perception towards characteristics of human resource systems in utilizing of employee competency analysis, individual ability support, continuous learning enhancement, strategic-development connectivity, and innovation creativity focus. The five-item scale is newly developed.

Independent Variables

Transformational leadership orientation is measured through HR manager and/or director perception regards to encouraging and advocating the employees to develop according to organizational objectives (Bass & Avolio, 1989). This

construct is adapted from Bass & Avolio (1989), including a four-item scale.

Human capital policy is measured by HR manager or director perspective in broad organizational mission and agenda that focuses on enhancement and improvement of knowledge, skill, ability, and other characteristics of the employees (Bailey, 2011). This construct is adapted from Bailey (2011), including a four-item scale.

Organizational resource readiness is assessed by HR manager or director perception towards fruitfulness of tangible and intangible resources of an organization (Ray, Barney, & Muhanna, 2004). This construct is adapted from Ray, Barney, & Muhanna (2004), including a four-item scale.

Information technology capability is measured through HR manager or director perception in ability of a firm implementation or physical infrastructure and other information in technology support (Mark & Su, 2010). This construct is adapted from Turulja & Bajgoric (2016), including a four-item scale.

Environmental complexity force is assessed by HR manager or director perception in level of variation business conditions that has uncertainty and instability or heterogeneity of external factors that are involved by the organizational potential (Ashill & Jobber, 2014). This construct is adapted from Ashill & Jobber (2014), including a four-item scale.

Control Variables

Firm size number of workers is the representative of business size and is widely used in the literature on management and organization. It is represented by a dummy variable in which 0 means the firm has employees lower than or equal to 300 employees, and 1 means a firm has employee more than 300 employees (Ji, Tang, Wang, Yan & Liu, 2012). Ownership is substantial variation in the way human resources that is managed among different ownership types and regions. It is represented by a dummy variable in which 0 means the firm is a single unit and 1 means the firm is a franchised unit (Brand & Croonen, 2010).

Instrumental Tests

The validity and reliability were employed first thirty respondents to pre-test procedures (Table 1). The value of factor loadings of each construct is between 0.679 and 0.934, and is greater than 0.4, which indicates acceptable construct validity (Nunnally & Bernstein, 1994). The Cronbach's Alpha coefficient of all variables are between 0.881 and 0.946, and are greater than 0.70 (Hair, Black, Babin & Anderson, 2010).

Table 1: Results of Measure Validation

Constructs	Factor Loadings	Cronbach's Alpha
Transformational Leadership Orientation (TLO)	0.759 - 0.934	0.898
Human Capital Policy (HCP)	0.728 – 0.912	0.889
Organizational Resource Readiness (ORR)	0.679 – 0.880	0.881
Information Technology Capability (ITC)	0.705 – 0.916	0.911
Environmental Complexity Force (ECF)	0.786 – 0.960	0.896
Human Resource Development Capability (HRDC)	0.889 – 0.915	0.946

The multiple regression analysis was used to test all hypotheses. The general formula for the model is $HRDC = \alpha + \beta_1 TLO + \beta_2 HCP + \beta_3 ORR + \beta_4 ITC + \beta_5 ECF + \beta_6 FS + \beta_7 OS + \varepsilon$

Table 2: Descriptive Statistics and Correlation Matrix

Variables	TLO	HCP	ORR	ITC	ECF	HRDC	FS	OS	VIF
Mean	4.134	4.169	4.093	4.068	4.388	4.148	n/a	n/a	n/a
S.D.	0.635	0.613	0.672	0.693	0.568	0.571	n/a	n/a	n/a
TLO	1								4.125
HCP	.844**	1							5.550
ORR	.807**	.851**	1						4.894
ITC	.766**	.805**	.818**	1					3.838
ECF	.622**	.661**	.657**	.671**	1				2.031
HRDC	.793**	.797**	.816**	.818**	.680**	1			n/a
FS	.295**	.420**	.408**	.301**	.341**	.325**	1		1.380
OS	.236**	.241**	.198*	.214*	.170	.158	.301**	1	1.141

*** P<.01, ** P<.05, * P<.10

Results and Discussions

Table 2 presents correlation matrix for all constructs. Correlation coefficients between constructs are ranging from 0.622 to 0.851, which is exceeding 0.80 (Hair, Black, Babin & Anderson, 2010). Therefore, variance inflation factor (VIF) was used to test the multicollinearity problems. The VIF values are between 2.031 and 5.550, below the cut-off score of 10 (Hair, Black, Babin & Anderson, 2010), meaning that the independent variables are not multicollinearity problem.

Table 3: Results of Effects of Antecedents on Human Resource Development Capability

Independent Variables	**Dependent Variables**
	HRDC
Transformational Leadership Orientation (TLO): H1	**0.212*** **
	(0.081)
Human Capital Policy (HCP): H2	0.072
	(0.093)
Organizational Resource Readiness (ORR): H3	**0.209** **
	(0.088)
Information Technology Capability (ITC): H4	**0.279*** **
	(0.078)
Environmental Complexity Force (ECF): H5	**0.119** **
	(0.056)
Firm Size (FS)	0.014
	(0.093)
Ownership (OS)	-0.096
	(0.086)
Adjusted R2	0.758
Maximum VIF	5.550

P<.01, ** P<.05, * P<.10 Beta coefficients with standard errors in parenthesis

Table 3 shows the results of hypothesis testing that consistent with concept of contingency theory to examine endogenous and exogenous factors of firm capability. Firstly, transformational leadership orientation is a significant positive effect on human resource development capability (H1: β1 = 0.212, P<.01). It is consistent with previous research in that transformational leadership orients the employee toward a positive attitude about learning and training that can lead to operational efficiency (Pearce, Yoo & Alavi, 2004). Transformational leadership has moderated a perceived HRM of individual levels of employees (Vermeeren, 2014). Therefore, Hypothesis 1 is supported.

Secondly, human capital policy is not significantly related to human resource development capability (H2: β2 = 0.072, P>0.10). Although organizational policy has positive relationship to team of behavior and certain situations (Norton, Zacher & Ashkanasy, 2014) including human capital policy should support the human resource system in organization (Bailey, 2011), this finding is consistent with previous research in that human resource policies fail to support workplace learning, training and development (Clarke, 2004). Because the workplace learning, training and developing are wanted in relation to meeting much of complex knowledge and skill needs to be required in today's workplaces (Raper, Ashton, Felstead & Storey, 1997). Therefore, Hypothesis 2 is not supported.

Thirdly, organizational resource readiness is a positive relationship with human resource development capability (H3: β3 = 0.209, P<.05). The finding is consistent with previous research in that the firm utilizing, the shared resource of the updated information should be gained and shared by processes, including information-sharing, resource-sharing, techniques and know-how sharing, and opportunity-sharing (Takeno, Okamoto, Uetake & Sugawara, 2001). Organizational resource readiness has been shared all over the firm where the capability creates new products, new services and new processes to increase (Kratzer, Gemunden & Lettl, 2008). Therefore, Hypothesis 3 is supported.

Fourthly, information technology capability is a positive relationship with human resource development capability (H4: β4 = 0.279, P<.01). This finding is consistent with previous research in that information technology supports several parts of human resource development such as intechnical skill, managerial and interpersonal skill (Couger, et al., 1995). The achievement of information system implementation (set of interrelated components are used to collect, process, store and disseminate information to support decision-making, analysis and management controls in an organization) (Coulter, 2002), and integration and utilization of data from a common database for generating information for operations and decision -making (Chapman, 2005). Therefore, Hypothesis 4 is supported.

Finally, environmental complexity force is a positive relationship with human resource development capability (H5: β5 = 0.119, P<.05). This finding is consistent with previous research in that environmental complexity is a function of heterogeneity, dissimilarity, or diffusion among them and it is a function of the sophisticated or technical knowledge required to interact effectively with them (Cannon & John, 2007). It relates to the ability to forecast the effects of environmental trends of the firm, the ability to examine the effects of organizational decisions, and the utility of environmental information in expectations which affect decision-making (Boyd & Fulk, 1996). Therefore, Hypothesis 5 is supported. Moreover, firm size and ownership have no significant effect on HRDC (β6 = 0.014, β7=-0.096). It can be interpreted that HRDC is not influenced by firm size and ownership.

Contributions

Theoretical Contributions

This research is an insight in providing clearer understanding of antecedent factors of human resource development capability. It provides unique

theoretical contribution expanding on previous knowledge and literature of HRDC. This research develops a model and test the relationship between antecedent factors and human resource development capability consists of transformational leadership orientation, human capital policy, organizational resource readiness, IT capability and environmental complexity force. The results reveal that transformational leadership orientation, organizational resource readiness, IT capability and environmental complexity force have a positive significant effect on human resource development capability. Moreover, the contingency theory is used to explain the relationship in this research.

Managerial Contribution

There are four recommendations about managerial contribution. Firstly, human resource directors and managers must pay attention to activities that support firm's leadership, emphasize support, and moderate the human resource development activities. Secondly, human resource directors and managers should facilitate their employees with substantial resources. The appropriate resource allocation is an important internal factor that promotes employee training and development activities. Thirdly, firms should be continuously engrossed in technology, techniques and process development in operations. Information technology in collecting, analyzing, storing, and presenting the relevant information is the crucial facility to support human resource development operations. Firms should be aware of the external environment changing that affects to theirs operation.

Suggestion for Future Research

The limitations of this study are using just single population. It may limit the generalizability. The newly-proposed concepts of human resource development capability can be reproposed its concepts and including the consequences to the conceptual model. The future research may employ other sampling population involved manufacturing that has used the efficiency workforce in operation such as industrial parts manufacturer or aircraft industry to compare and confirm the results. This may employ other constructs to improve the conceptual framework such as employee commitment, organizational development, and organizational performance.

Conclusion

This research aims to investigate the effects of transformational leadership orientation, human capital policy, organizational resource readiness, information technology capability, and environmental complexity force on human resource development capability in Thai auto parts businesses from auto parts businesses in Thailand. Multiple regression analysis was used in hypothesis testing. Certainly, those of the relations are positively significant and no significant supported. Especially, further study is needed to conceptualize the measurement of some dimensions antecedents of human resource development capability that are not significant in other context. For the suggestion, the research should be an interesting point that moderators may play a better moderating role on the relationship between antecedents and human resource development capability, such as leader-member exchange and justice perception to develop and expand the human resource development literatures.

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