THE THAILAND QUALIFICATION FRAMEWORK: SIMILARITIES AND DIFFERENCES IN THE MEASURED AND DESIRED ATTRIBUTES

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ABSTRACT

There is a mismatch between employers' expectations of the abilities of new graduate employees, and the realities. This paper synthesizes studies which deal with this mismatch. It reviews previous studies of quality assurance standards, expectations, and actual measurement. In the 'Thai Qualifications Framework for Higher Education' (TQF: HEd), five dimensions evaluate the attributes of all freshly recruited graduates. Content analysis has been used to examine annual TQF Assessment Reports of 20 universities in Thailand. The key five domains of the Office of Higher Education Council (OHEC), were compared with the desired attributes synthesized from previous research into the assessments of graduates' Thai employers. In those previous studies, the most desirable attributes were categorized into twenty-five items. The recommendation in this paper is to add some attributes, such as the Domain of Psychomotor Skills (Arit.chandra.ac.th, n.d., p.2); and decrease the five domains to only three, in accordance with the National Education Act, 1999 (Thai year 2542). Three main latent attributes have been examined to cover the three perspectives, which were: A) Academic knowledge to provide foundation for their further development; B) Practical knowledge which directly transforms into work readiness; and C) Ethical and moral mindsets to perform professional practices. The most important was defined as professional ethics. The integration of the findings, resulting from the interpretation of the variables, constructs, models and meanings, is shown in the Appendices, categorized by the three types of stakeholders: Students, Job Candidates, and Employers.

Keywords: *Attribute, Employers, New Graduates, TQF, Qualification Framework*

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บทคัดย่อ

บทความนี้มีวัตถุประสงค์เพื่อศึกษางานวิจัยก่อนหน้าที่เกี่ยวข้องกับมาตรฐานประกันคุณภาพการศึกษา
ระดับอุดมศึกษา (TQF: HEd) กรอบคุณภาพในห้ามิติ ใช้การวิเคราะห์เนื้อหา ในประเด็นคุณลักษณะ
ทั้งหมดของผู้สำเร็จการศึกษาที่จบใหม่ การตรวจสอบเนื้อหางานวิจัยใช้รายงานการประเมินจาก
มหาวิทยาลัยชั้นนำ 20 แห่งในประเทศไทย องค์ประกอบตัวแปรหลักทั้งห้าประการของสำนักงานเลขาธิการ
สภาการศึกษาระดับอุดมศึกษา (สกอ) ที่กำหนดไว้ วิธีการสังเคราะห์ตัวแปรในคุณลักษณะของนายจ้างที่มี
ต่อบัณฑิตจบใหม่ การออกแบบในข้อคำถามต่างๆ ในการศึกษาก่อนหน้านี้ คุณลักษณะที่เป็นที่ต้องการ
ที่สุดแบ่งออกเป็น 25 ประการ ข้อเสนอแนะสำหรับการวิจัยนี้ คือ การเพิ่มคุณลักษณะบางประการเข้าใน
องค์ประกอบ เช่น จิตทักษะ (อ้างใน Arit.chandara.ac.th, น.ป., เล่ม 2) การลดบางมาตรการเหลือเพียงสาม
มิติตามที่กระทรวงศึกษาธิการแห่งชาติบังคับใช้พระราชบัญญัติ ฉบับปี พ.ศ. 2542 ซึ่งกำหนดคุณลักษณะ
แฝง 3 ประการหลักเพื่อกำหนดขอบเขตครอบคลุมใน 3 มุมมองหลัก ได้แก่ (ก) ความรู้และความสามารถ
ทางวิชาการเป็นพื้นฐานในด้านการศึกษา (ข) ความรู้และความสามารถซึ่งจบการศึกษาและพร้อมที่จะ
ทำงาน (ค) จริยธรรม คุณธรรม และศีลธรรมในทักษะวิชาชีพและการปฏิบัติงาน ถือเป็นจุดสำคัญในการ
มุ่งเน้นสู่การกำหนดจรรยาบรรณของวิชาชีพผลการวิจัยค้นพบการบูรณาการระหว่างองค์ประกอบตัวแปร
การถอดความหมายและตีความ (แสดงในภาคผนวก) ซึ่งแสดงโครงสร้างรูปแบบใน 3 มิติ (หลักวิจัย 3 เส้า)
เป็นมุมมองทัศนะผ่านผลวิจัยจาก 3 ฝ่ายผู้ได้เสีย ได้แก่ นักศึกษา ผู้สมัครงาน และนายจ้าง โดยนำ
คุณลักษณะเหล่านี้สำหรับนักวิจัยที่สนใจและเพื่อการประยุกต์ใช้พัฒนางานวิจัยในอนาคต

คำสำคัญ: คุณลักษณะ นายจ้าง บัณฑิตจบใหม่ กรอบประกันคุณภาพ

INTRODUCTION

According to the National Economic and Social Development Board (NESDB), Thailand faces the problem of increased unemployment, as entrepreneurs slow their business expansion and reduce jobs, and the agricultural sector also heads into a season of drought. In the third quarter of 2014, there were 326,616 unemployed workers in Thailand (about 0.84 percentages) an increase of about 0.77 percentages compared to the same period of 2013. As seen by employers, the Thai educational system simply does not produce enough quality graduates for the domestic labor market. Employers report their difficulty in hiring people with problem-solving skills and good work habits, and of finding applicants with even basic reading skills.

Research Objectives

1. To examine both the measured attributes universities use to assess the quality of their graduates, and the results of the employer survey of the desired attributes they expect from new graduates.
2. To find the similarities and differences in the measured and desired attributes.
3. To produce recommendations to enhance the similarities and reduce the differenhces between the measured and desired attributes.

LITERATURE REVIEW

Education in Thailand

Despite a long history of higher education reforms, scarcity of skilled, competent employees continues to be a major concern. In Thailand, firm-level evidence suggests that skill shortages and mismatches pose significant barriers to growth in the country: roughly one-third of companies in Thailand identify skill and educational shortages as major obstacles for the successful operation and growth of their businesses (Farangtong, 2010). Higher education has been seen as becoming far more important in providing the skills which workers need the most. In 2014, ten percent of Thai employees thought that the skills that they need the most can only be provided by higher education institutions (up from 12 percent in 2011). Skill mismatches and shortages continue, as further evidenced by firms' inability to fill vacant positions for professional or skilled employees, despite high wage premiums. One fifth of all the companies in Thailand have reported vacancies in professional positions which they cannot fill for over seven weeks on average (Charles & Zeufack, 2006). The persistence of labor market mismatches suggests that further work is required to improve the quality of the students and higher education institutions, by achieving a greater scale of skills matches, and equalize access to education.

Employee Attributes

Many employee attributes valued by employers in the TQF list were: Good human relations (interpersonal), Responsiveness (responsibility in the assignment), Persistence (desire for skill development and life-long learning for better outcomes), Self-confidence, and Morality. All these attributes were included in studies and reports for faculties of business administration graduates students who were already employed.

Earlier studies used TQF's five domains (Thai Qualifications Framework for Higher Education: TQF: HEd) as the same standard (OHEC, 2015, p.65). Almost everywhere in ASEAN, education institutions used levels in the quality performance index, which were adopted from well-known sources such as the five TQF domains of the National Qualifications Framework for Higher Education (NQF: HEd).

In this research, content analysis was applied to the TQF reports of 20 Universities in Thailand, and related to survey research on the employers' satisfaction with the graduates as new employees (see Table 1).

The Attributes were: 1) Development of Moral and Morality (Ethics, behavioral); 2) Knowledge and Ability skill; 3) Ingenious & intellectual skill; 4) Interpersonal relation with task responsibility; and 5) Analytical decision making and communication (which included or excluded information technology application skill). Some studies were modified into three dominants: a) ready to work; b) general skills; c) specific skills. These were referred to as the Need for graduates' characteristics, as explained in the next section.

Employers' desires as organizational requirements were: responsibility, persistence, morality and honesty, human relations, and contemplative. These were illustrated by many perceptions, employers expectations being expressed as 20 characteristics of employee attributes, which were: omniscience, fluency in English, multi-language capability; ability in the computer, information system and knowledge, new technology learning and practices; ability to communicate and public relations, presentation, human relations; ability to analyze; agility for change; morality and honesty; socialization responsibility; leadership; innovative thinking; altruistic; self-confidence; and visionary.

In a study by KKU (2000) using a survey in Northeast Thailand, the samples surveyed were groups of employers, a total 1,050 respondent firms who were asked about their selection attributes. These were divided into two sections. First, the required attributes of their existing employees (by education levels: 10,885 graduated below bachelor level, 3,431 with a bachelor degree, and 187 with higher degrees). Second, the expected attributes of new staff for future recruitment. The results showed that for existing employed staff (bachelor degree), the most impact came from good relations, then responsibility. For higher education (master degrees), the most impact came from their responsibility, then honesty. It is quite clear that *"Responsibility"* was the most critical needs in employers' aspects from their employees (either graduated or educated levels). But a problem with Master and Doctoral degrees was morality.

Next, came the preferred attributes requisite for new recruits. All firms were asked to respond with their preferred choice of attributes. What were the most important attributes in a new candidate, from an HR manager's viewpoint? The findings showed that the most important for new bachelor's graduates was responsibility, followed by tolerance. For higher educated recruits, the most important attributes were responsibility, and then morality and honesty.

Table 1: Milestones of Related Works on Graduates Attributes in Quality Assurances and Employers' Satisfaction Dimensions

No.	Authors	Year	Institutions	Titles
1	Koocharoenpaisarn et al.	2000	CMU	Demand for Management Faculty Graduates from the Northern Organizations. (in Thai).
2	Dept.Research & Plan	2000	CU	The study on Trends of Demand for Management Faculty Graduates. (in Thai).
3	Jeungsanguanpornsuk & Leksomboon	2000	KKU	The study on Trends of Demand for Management Faculty Graduates (Upper Northeast).(in Thai).
4	Siriputthaiwan	2004	TSU	Characteristics of TSU Graduates Affecting Job Employment Opportunities. (in Thai).
5	Paleehachinda et al.	2007	BU	Trends of Demand for Information Science and Editing Graduates. Chon Buri: Faculty of Humanities and Social Sciences, BuraphaUniversity. Keywords: Graduates needs, Editors (in Thai).
6	Barnes	2008	AU	Are Graduates of International MBA Programs in Bangkok Meeting the Management Needs of Employers?
7	Dept. of Monitoring and Evaluation of Graduates	2009	RMU	Questionnaire form: Employer's satisfaction on graduates in working and characteristics of graduates from Faculty of Humanities and Social Sciences since Thai year 2552 (in Thai).
8	Strategic Affairs, Office of Evaluation and QA	2009	KKU	Report of satisfaction on the quality of Khon Kaen University graduates' working performance Academic Year 2552, KhonKaen University.(in Thai).
9	Deita & Phuekchantruk	2009	SPU	Desired Traits of the English Business Communication Interns as Perceived by Business Organizations. (in Thai).
10	Student Development Division	2011	RMUTT	The satisfaction of the graduates with the efficient performance of graduates. Graduate characters of RMUTT (in Thai).
11	SNRU (Eds.).	2012	SNRU	The satisfaction of the graduate students. Characteristics of the Graduate Education Qualifications Framework (TQF).Sakon Nakhon Rajabhat University.(in Thai).
12	Tanuvorapat	2012	NORTHCM	Preferable Qualifications of the English for Communication Graduates, Faculty of Social Sciences and Liberal Arts, North-ChiangMaiUniversity.(in Thai).
13	Lertprachin & Meksuwan	2012	LPRU	Survey of Desired Characteristic of Graduates from Requirements of Graduate Users Faculty of Management Science, Lampang Rajabhat University.(in Thai).
14	Thawornchak	2012	RPU	The Employers Satisfaction for Graduate Students from RatchaphruekCollege in 2011.(in Thai).
15	Office of Educational Quality Development	2013	CMU	Research Report on the satisfaction of employers, entrepreneurs, graduates users. CMU Academic Year 2555, Chiang Mai University (in Thai).
16	Office of Academic Promotion &Registration	2013	SKRU	Report on Satisfaction of SKRU Graduates' employers Thai Academic Year 2556.(in Thai).
17	Kunrajsena & Parkamwang	2012	PCRU	Trends study on Demand for Bachelor graduates in Multimedia Technology Science from employers in Phetchabun Province (Phetchabun Rajabhat University).(in Thai).
18	Faculty of Education	2013	SSKRU	Survey Report from Graduates' Employers demands for graduates in SSKRU Undergraduate Faculty of Education, Academic Year 2556. (in Thai).
19	Faculty of Industrial Technology (n.p.).	(n.d.)	(n.p.)	Questionnaire form: Survey on Desirable need of Graduates' characters according to organizations, Bachelor of Industrial Technology (Agricultural Machinery Technology) and Bachelor of Technology Program in Computer Technology
20	Graduate School	(n.d.)	CU	Questionnaire form: The satisfaction of users on a graduate in working performance. And characteristics of graduates who have graduated from CU's courses (any fields), Chulalongkorn University.

Finally, the analyzed factors regarding the capabilities of bachelor graduated candidates were: ability in using a computer system (Windows and business applications) and resourcefulness. For Master degree recruits, the requisites were ability in a computer system, and personal characteristics. The Research Division, Finance and Planning Division, Faculty of Commerce and Accountancy, at Chulalongkorn University (CU, 2000) proposed ten attributes according to the employer's requirement for bachelor degree graduates. These were: responsibility, morality and honesty, tolerance, discipline, human relations, fluent in English, altruistic, contemplative, ability in the computer, and agile in changing. Ten attributes for master degree graduates were responsibility, fluent in English, morality and honesty, contemplative, leadership and tolerance, visionary, comment sharing and ability in communication, analysis and presentation, creativity, discipline, and human relations. The two most important attributes were responsibility and morality with honesty for bachelor recruits, and responsibility and fluency in English for master degrees. Table 2 presents syntheses of the most frequently cited attributes.

Need Assessment of Attributes, Concepts and for Graduates
This decade, one of most favored published research for education was an assessment of needs research. The theoretical base was the development of a basic hierarchy of needs. Gaber (as cited in Yurarach, 2011a, p.37) utilized his study of needs assessment works to apply in Human service agencies. Comparing what is (existing) with the future (expectation). The differences between the current situational appearance and the expected result would reveal a gap, with ranking and picking the most impactful item as an important key factor. Yurarach (2011b) recommended assessment result by vote counting.

Lyons (2015, p.18) suggested a well known CSE (Core self-evaluation) in HR research. CSE linked to motivation helps one to decide the degree of effort to invest in different activities.The CSE concept is measurable by four traits. First, Self-esteem is an overall appraisal of one's worth. Second, Self-efficacy is an estimate of one's ability to perform and cope effectively with a broad range of situations. Third, Emotional stability is a propensity to feel calm and secure. Furth, Locus of control is the belief that desired effects or outcomes result from one's behavior rather than by influencing others or fate. Moreover, he proposed that these four traits be highly correlated with one another and had been found to define a specific, single factor.

Table 2: Syntheses of Most Employed Graduates' Attributes for Evaluation by Employers

ITEMS	1	2a	2b	3a	3b	4	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TTLL
responsibilities		x	x	x	x	x		x	x				x	x	x	x		x		x	13
interpersonal relationship	x	x	x	x	x			x	x				x	x	x	x		x		x	13
ability to modern	x	x	x	x	x			x		x					x	x	x	x		x	12
ethical behavior, morality		x	x	x	x		x		x	x			x				x	x	x		11
altruistic	x	x	x	x	x			x			x	x			x	x				x	11
honesty	x	x		x	x	x		x			x	x			x					x	10
ability in communication		x	x	x	x			x		x					x	x	x	x			10
moral	x						x	x	x	x			x			x		x	x		9
academic knowledge							x	x		x			x		x	x		x	x	x	9
professional knowledge							x	x		x	x	x			x		x			x	8
other lang. (not English)	x			x	x						TH	TH	x				TH			TH	8
ability in IT and app.	x	x	x	x	x										x		x			x	8
analytical (Mathematical)		x	x	x	x			x							x	x		x			8
tolerance	x	x	x	x	x			x												x	7
contemplative	x	x	x	x	x											x				x	7
ingenious	x							x	x		x	x	x					x			7
ethical+honesty+moral	x	x	x	x	x			x													6
intellectual skill			x		x			x				x			x		x				6
English language skill	x	x	x	x	x															x	6
presentation ability		x	x	x	x										x					x	6
initiative		x	x	x	x										x					x	6
teamwork ability								x		x					x		x			x	5
adaptable in changing		x	x	x	x															x	5
visionary		x	x	x	x															x	5
leaderships		x	x	x	x															x	5
personality and character	x						x												x	x	4
propriety/appropriateness	x						x								x					x	4
on rules and discipline		x	x												x					x	4
self-confidence		x	x	x	x																4
diligence						x		x							x					x	4
energetic & enthusiasm	x							x							x						3
professional ethics							x			x					x						3
social relationship				x	x															x	3
opinion expression/		x	x												x						3
punctuality	x																			x	2
morality + honestly				x	x																2
loyalty to the organization	x	x																			2
business laws foundation	x																				1
Taxation knowledge	x																				1

* T = Thai language.
*papers numbered 5th and 6th omitted since no described items.

Table 3: Syntheses Desirable Graduate Attributes on Employers' Needs & Expectations

Needs for improvement	PAPER No* (a = Bachelor, b = Master degree) **																	Count
	1	2a	2b	3a	3b	4	8	9	10	11	12	13	14	15	16	17	18	
modern technology ability		x	x	x	X	x				x	x	x	x	x	x			10
English language skill	x	x	x			x	x	x			x	x	x				x	10
honesty		x	x	x	X	x			x		x							7
responsibilities		x	x			x			x		x			x	x			7
intellectual skill		x	x	x	X									x	x			6
propriety in personality		x	x	x	X				x		x							6
job training		x	x	x	X							x						5
on rules and discipline		x	x			x					x		x					5
functional capabilities								x		x	x			x		x		5
ability in IT/application										x	x	x		x		x		5
other languages skills								J*	T*		x		x				x	5
ability in communication										x				x	x	x		4
team ability/participation											x	x	x			x		4
analytical decision-making										x	x			x	x			4
initiative		x	x									x						3
tolerance		x	x								x							3
cultural environment		x	x									x						3
general foundation courses & practical		x	x									x						3
altruistic			x							x								2
diligence						x							x					2
punctuality							x				x							2
ability in planning and problem-solving						x					x							2
ethical behavior/morality			x											x				2
entrepreneurial likelihood		x	x															2
interpersonal relationship														x	x			2
adaptable in changing												x	x					2
self-confidence							x				x							2
expression and presentation										x	x							2
typing skill (TH-ENG)	x																	1
contemplative										x								1
personal skills development												x						1
service-mind											x							1
leaderships						x												1
visionary			x															1

* J = Japanese language, T = Thai language.
**papers 5th, 6th, were no employer's responses in attributes.
**papers 7th, 19th, and 20th had omitted because empty questionnaire form without employers' responses.

Phonapichat, Wongwanich & Sujiva (2015, p.1) applied the AHM (attribute hierarchy method) to their diagnostic test, as this was an alternative to rank the priority of needs for assessment. Yurarach (2011a) synthesized the needs assessment that can be done by Vote counting. His work had summarized nine papers syntheses (Yurarach, 2011b). Table 3 shows the most attributes employed in many studies. However, the need for assessment result applied only to teaching and learning outcomes as a standard of quality assurance.

FINDINGS & CONCLUSIONS

Most domains used in Thai universities for quality assurance reports were under TQF's domains described as 1) Ethics and Morals 2) Knowledge 3) Cognitive Skills 4) Interpersonal Skills and Responsibility, and 5) Numerical, Communication, and Information Technology Skills (Office of the Higher Education Commission, 2015, p.2. in Thai). Reports have produced an outcome from a major dominant latent in many items. However, the groups of attributes were still maintained in the same areas without more description in other perspectives.

Some may be classified as a Domain of Psychomotor Skills (Arit.chandra.ac.th, n.d., p.2). Also, some may be reduced to only three dimensions, following the Ministry of Education's National Education Act, 1999 (Thai year 2542). The three most important latent attributes are covered in the following perspectives:
   A) Knowledge and ability as academic fundamentals in the field of study.
   B) Awareness and ability as basically the need for readiness to work.
   C) Ethics, Moral and morality behavior in professional skills and practices.

Results in Table 2 above showed that because of the universities design, employer respondents had no freedom of choices other than to select from fixed items. Hence, the analyzed outcome found the most selected attributes to be: Responsibility (13), Interpersonal Relationship (13), Ability in Modern Technology (12), Ability in Business Application and Software Utilization, Ethical Behavioral and Morality (11), Altruistic (11), Honesty (10), and Ability in Communication, respectively

The results in Table 3 showed the most preferred graduates on employer's needs and expectations (for further graduates' development on campus). The findings showed critical attribute differently. These were: Ability in Modern Technology (10), Ability in the English Language (10), Honesty (7),

Responsibilities (7), Intellectual Skill (6), Propriety in Personality (6), and Job Training (5) werethe most needs.

A) Similarities
From seven top attributes, the similar attributes (but less in frequencies) were:

Ability in modern technology: this means that today fresh graduates are unable to utilize the business software well enough (on average). Most concerns were an ability to use computers both for computer business software, as well as all internet applications and networks. This attribute has to support ability in the English language, as most of the standard software applications are in English.

Honesty: the issue of career turnover was changing. Most new graduates work only for a short-term and later jump to work with other companies for higher salary.

Responsibility: being punctual on-time with assignment and accomplishment were at a low level, and difficulties of staff self-development. This related to the enthusiasm of an energetic candidate.

B) Differences
What employers most need, are different from the provided content items. Their expectations were:
Ability in the English language: The need of staff with ability in the English language in business communication, and thus able to use business software in English.

Intellectual Skill: refers to critical, analytical, synthesizing and problem-solving skills. Intellectual skills include the assimilation of new knowledge, the development of a critical analysis of studied information, and the application of basic knowledge in wider contexts.

The Sense of Ownership: This attribute leads to organizational loyalty, commitment, and ultimately citizenship. It is one of the rare attributes employers hardly find in graduates.

Job Training (not Communications Skills): Business today requires more realism in vocational education with a whole package of practices rather than only a single key ability. Business owners are trying to push this burden of training back to the campus, so that their students should be well trained before they begin to work.

Recommendations for Future Research

Other research measurements of graduate quality could utilize and compare the qualifications desired by employers surveyed in this study. Future studies should consider including other dimensions and attributes, such as skills, knowledge, and ability required in specific industries or specific types of firms, since firms are heterogenic, heuristic, and differentiate diffusely; a similar key driver for all can cause a bias.

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APPENDIX

Syntheses: Integrated Domain of Variables and Interpretations

ACADEMIC TERMS:

Five domains of TQF (Academic)
(1) Interpersonal Relationship (Organizational Teamwork and Reputation)
(2) Responsibility (Assignment Task and Accomplishment in Timeliness)
(3) Persistence (Skill development: skill from graduated knowledge & Ability skill to work)
(4) Self-confidence (Ability in Analytics decision making &communications)
(5) Morality (Personal Ethics related to HR)

Five main key attributes of THAI TQF(Academic)
1) Moral and Morality (Ethics behavioral: Late Attendance & Absence to work)
2) Knowledge and Ability skill (Knowledge Skill; Skill in English language)
3) Ingenious & intellectual skill (Skill in Equipment and software application)
4) Interpersonal relation with task responsibility (Working environment)
5) Analytical decision making and communication (Mistake avoidance)

Key Desirable Employed Staff Attributes by Employers (3PL management)
(Table 15, Thankdenchai & Wong-U, 2016, pp.38)

| Preference Attributes	Mean	S.D.	Preference Level
2) Knowledge Skill	4.56	0.51	Very High
1) English Skill	4.11	0.76	High
6) Absence	3.94	0.73	High
3) Mistakes avoid.	3.89	0.76	High
7) Equipment Skill	3.78	0.43	High
4) Working Environ	3.72	0.67	High
5) Late attendance	3.67	0.49	High
Total 7 Desirable Attributes	3.95	0.28	High

BUSINESS PRATICAL TERMS:

Key Desirable Job Attributes by Employers (Thankdenchai & Heesawat, 2015, pp.18)

Five Domain	5s SPU: Service Performance Unit Model	Staff	Boss	Pre/Act
(1) Reliability	(Reputation of Organization including their	3.65	4.56	.839/.860
(2) Rates	(Monetary issues: Employee's salary;	3.87	3.72	.848/.890
(3) Resources	(HR Issues, equipments availability)	3.53	3.78	.842/.890
(4) Risk Avoidance	(Morality: Ethics, Warrant & Assurance in	3.55	3.89	.844/.870
(5) Responsiveness	(Responsibility in timeliness)	3.88	3.94	.839/.850

Domain constructs tested by Alpha value with (60 samples in Pretest and 509 samples in Actual survey)

Key Attribute Related Employees Motivation (Wiley, 1995)
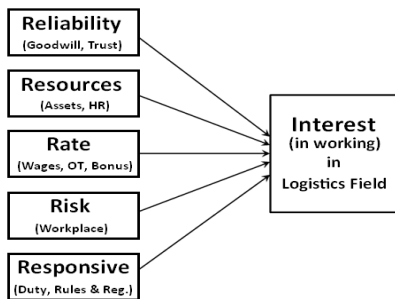
Five domains of Employees Motivation (Wiley, 1995)

(1) Interesting work (Reliability, brand & firm's image, organizational reputation)

(2) Good wages (Rates)

(3) Promotion and growth in the organization (Resources: HR & Firm's system).

(4) Job security; (Assurance; Risk avoidance)

(5) Full appreciation for work done; (Responsiveness)

Adapted to previous work of Thankdenchai & Heesawat (2015).