RELIABILITY TEST FOR TRAINING OPPORTUNITIES AND CHALLENGES OF RURAL LABOR FORCE TOWARDS THE QUALITY OF VOCATIONAL EDUCATION IN MEKONG DELTA

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ABSTRACT

*Mekong Delta (MD) is one of the key economic areas, Vietnam's largest granary; however, its pace of development is slower than other regions or provinces. One of the reasons for the backwardness of the Mekong Delta is the quality of labor force not meeting the requirements of economic and social development. This paper, entitled "**Reliability test for training opportunities and challenges of rural labor force towards the quality of vocational education in Mekong Delta"** conducted during the period from March 2014 to March 2016. The results from data analysis revealed that respondents consider the following factors as the most influential factors: (1) Facilities; (2) Lecturers; (3) Method of delivery and (4) Curriculums. All four most influential factors related to the quality of vocational education in the Mekong Delta with significance level of 5 %.*

This result confirmed what found in the facilities that was the most important factor to the quality of vocational education and then the second is the curriculums related to the quality of vocational education. In addition, the research results showed that there were 450 trainees interviewed and answered nearly 26 questions. The researcher had analyzed KMO test, the result of KMO analysis used. Managers are responses measured through an adapted questionnaire on a 5-point Likert scale. The researcher had the hard copy and interview trainees by questionnaire. The KMO analysis result showed that there were four factors, which included of factors following the facilities, lecturers, curriculums and method of delivery on the quality of vocational education in the Mekong Delta with significance level of 5 %. In addition, the research result processed from SPSS 20.0 software.

Keywords: *training quality, opportunities, challenges, vocational education and Mekong Delta*

Introduction

Vietnam is a developing country that is strong integrating with the world. As a result, even though our country has the opportunity to grow, it must face many difficulties and challenges. In the early years after joining the World Trade Organization (WTO), the agricultural products of Vietnam have reached out to the world with many products such as food, coffee, rubber, seafood, etc. is at the top positions of the world market. However, joining the WTO means that Vietnam's economy in general and Vietnamese products in particular are subject to huge competition that makes Vietnam's competitive advantage of cheap labor decrease significantly. During the integration process, the starting point of Vietnam is too low. Nearly 80% of the populations live in rural areas and over 70% of the populations are agricultural workers that have very low level of skill. Agricultural production was still heavily traditional. In GDP structure, agriculture still accounted for 25%, while in developed countries, the percentage of agriculture in GDP was only 3%. This showed that in order to catch up with the world, Vietnam needs to make much effort to achieve a breakthrough, in which the most important investment is improving the quality of human resources in rural areas.

Mekong Delta (MD) is one of the biggest fruit-grown areas of the whole country (38% of national cultivated areas). Many fruits that are specialties in the region are strong export products. Nevertheless, farmers growing crops are still struggling to find appropriate markets. The reason is the lack of local planning and the lack of guidance for product quality improvement, which eventually lead to "good harvest, low price' situation and vice versa.

Over the years, MD has maintained the number 1 spot on fruit production of the nation with more than 286 thousand hectares. Annual production is about 2.93 million tons. This is also the region with many types of tropical fruits and famous specialties that are fresh and easy to export such as: Hoa Loc mango, Chu mango, Lo Ren star apple, Chin Hoa durian, green grapefruit, Nam Roi grapefruit, oranges, rambutan, Queen Coconut... The orchard in the region contributes to creating jobs for about 700 thousand households. Combined with the practical requirements of the job, the researcher had chosen the theme: ***Reliability test for training opportunities and challenges of rural labor force towards the quality of vocational education in Mekong Delta*** as a paper for researching business administration.

Literature review

Odiorne and Rummler (1988) pointed out that the quality of the training outcomes is based on the training-needs assessment data; if the training needs have not been appropriately assessed, then the design of a training program will not meet the expectations of participants and the training efforts are a waste of time. In addition, Vermeulen (2002), Holton and Baldwin (2003) and Elangovan and Karakowsky (1999) stressed the need for the training to match what was required in the trainees' job context.

Kauffeld and Willenbrock (2010) argued that rapid and unpredictable changes in the organizations' operating environments are forcing them to have employees who are more adaptable and skilled than previously. The increased emphasis on high-quality goods and services, in the face of greater competition in the marketplace, is making it more necessary than ever for organizations to equip their employees with the relevant skills and develop their appropriate competencies. An ageing workforce together with fewer young recruits means organizations are having to spend more money and time on 'preventing' their employees from becoming obsolescent, rather than relying on schools and colleges.

Clark et al. (1993) stated that training motivation is a direct function of the extent to which the trainee believes that training will result in either job utility or career utility (the perceived usefulness of training for attainment of career goals, such as getting a raise or promotion, or taking a more fulfilling job). Sylvie and Sire (2001) confirmed that individuals' perceptions that their efforts in training were enable them to gain rewards at work is one of the factors that positively influence the trainees' training efforts, and Elangovan and Karakowsky (1999). Cheng and Ho (1998) and Holton and Baldwin (2003) found a clear link between reward and outcome expectations from training, and observed that the performance of trainees who expect their rewards to increase as a result of their training also improved.

The training needs identification: If training programs are to be effective, they must satisfy the needs of trainees. Therefore, the identification of training needs is the first step and a basic stage in training administration (Torrington and Hall, 1991; Noe, 1999; Robinson, 1988; Kirkpatrick and Kirkpatrick, 2006). It is common to define a training need as the gap that occurs between the exact needs of a given work and the current capability of the incumbent (Robinson, 1988, p.36). Similarly, Stewart (1999) argued that a training need is the same as the gap between existing capability and that required in order to achieve performance objectives.

Armstrong (2003) stated that all learning and training actions have to be built on the understanding of what needs to be done and why it needs to be done. Thus, carrying out systematic needs identification is a critical opening step to the design of training and can definitely affect the whole importance of training programs (Arthur et al., 2003).

According to Buckley and Caple (2004), when deciding whether or not to train, the first issue of importance is to define what constitutes the training need. It is suggested that a training need can be assumed to exist in two ways, these being when training is the most proper and operative tool of overwhelming an existing or expected deficit in performance, and when present or future job objectives are clearly linked to the organization's corporate objectives.

Methods of research

The preliminary study for trainees conducted in July 2015, using qualitative methods to interview 30 trainees to examine the content and meaning of the words used in the scale. Following this, the formal study conducted in December 2015, using qualitative methods to interview 450 trainees to examine the content and meaning of the words used in the scale. The researcher should select one of these methods of collecting the data taking into consideration the nature of investigation, objective and scope of the inquiry, financial resources, available time and the desired degree of accuracy. However, the researcher should pay attention to all these factors but much depends upon the ability and experience of the researcher.

Reliability test: Bryman and Cramer (1990) suggested that, it is just fine when Cronbach's alpha is 0.8 or above 0.8, while Nunnally (1978) stated that it is still acceptable with the value of 0.6, especially for initial investigation like in this research. Therefore, in this research, the value is confirmed when it is greater than 0.7.

Exploratory factor analysis (EFA): This is an important part in data analysis, because it aims to investigate the dimensions of each target variables. If any item has lower factor loading or cross-factor loading, it eliminated. Regarding to Kaiser (1970, 1974), Cronbach's Alpha was re-calculated for the scales of removed items.

Research results

Descriptive Statistics and Cronbach's Alpha the factors of the quality of vocational education in the Mekong Delta

Table 1: Descriptive Statistics and Cronbach's Alpha for the Lecturer (L)

Items	N	Std. Deviation
L1: The Lecturers' major and knowledge are suitable for teaching you	438	.947
L2: The Lecturers applying practical experience in lessons for you to understand lessons	438	.942
L3: The Lecturers were enthusiasm when communicating with you to solve the problem not only in the farm but also in the life.	438	.972
L4: The Lecturers were cheerfulness when teaching the lesions	438	.939
L5: The Lecturers who were politeness when communicating with you	438	.937
L6: The Lecturers supplied many books and new knowledge for you to read and to research.	438	.942

Reliability Statistics

Cronbach's Alpha	N of Items
.921	6

Item-Total Statistics

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
L1	16.33	16.117	.798	.903
L2	16.31	16.598	.730	.912
L3	16.22	16.136	.769	.907
L4	16.13	16.574	.736	.911
L5	16.20	16.103	.811	.901
L6	16.23	16.180	.794	.903

(Source: The researcher's collecting data and SPSS)

Table 1 showed that there were 450 trainees interviewed and related the quality of vocational education in the Mekong Delta but 438 trainees processed and answered 6 questions. Besides, Std. Deviation is around 1.0 and Cronbach's Alpha is 0.921 (> 0.6). This showed that the Data is very good for the next analysis.

Table 2: Descriptive Statistics and Cronbach's Alpha for the Facilities (F)

Items	N	Std. Deviation
F1: The equipment is such as room, table that were suitable for the needs of learning	438	.960
F2: The equipment is such as projector, computer, micro that were suitable for the needs of teaching	438	.973
F3: The books, textbooks and documents are very good for teaching and practicum	438	1.102
F4: The internet system, computers and others were very good for teaching and practicum	438	1.291
F5: The library system, practicum place and other equipment for teaching and learning	438	1.337

Reliability Statistics

Cronbach's Alpha	N of Items
.937	5

Item-Total Statistics

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
F1	14.32	17.791	.909	.913
F2	14.36	17.938	.873	.918
F3	14.89	17.850	.753	.936
F4	14.63	15.775	.842	.922
F5	14.93	15.405	.846	.922

(Source: The researcher's collecting data and SPSS)

Table 2 showed that there were 450 trainees interviewed and related the quality of vocational education in the Mekong Delta but 438 trainees processed and answered 5 questions. Besides, Std. Deviation is around 1.0 and Cronbach's Alpha is 0.937 (> 0.6). This showed that the Data is very good for the next analysis.

Table 3: Descriptive Statistics and Cronbach's Alpha for the Curriculums (C)

Items	N	Std. Deviation
C1: The training curriculums are suitable for your job before learning	438	.894
C2: The training curriculums supplying necessary information for your job and social need	438	.928
C3: The training curriculums were changing to meet enterprises' demand, social need and practicum	438	.942
C4: The training curriculums were very interested, significant for your job, life and other need.	438	.902

Reliability Statistics

Cronbach's Alpha	N of Items
.901	4

Item-Total Statistics

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
C1	10.47	6.012	.808	.861
C2	10.39	5.914	.793	.866
C3	10.46	5.974	.759	.879
C4	10.52	6.168	.753	.881

(Source: The researcher's collecting data and SPSS)

Table 3 showed that there were 450 trainees interviewed and related the quality of vocational education in the Mekong Delta but 438 trainees processed and answered 4 questions. Besides, Std. Deviation is around 1.0 and Cronbach's Alpha is 0.901 (> 0.6). This showed that the Data is very good for the next analysis.

Table 4: Descriptive Statistics and Cronbach's Alpha for the Method of delivery (M)

Items	N	Std. Deviation
M1: The Lecturer's teaching methodology is very suitable for you	438	.871
M2: The Lecturers supplying for you the skills of the presentation and practicum skills	438	1.571
M3: The Lecturers supplying many methods in teaching for you to practicum	438	1.439
M4: The Lecturer's teaching methodology is very easy to study lessons and to understand lessons	438	1.429
M5: The lecturers solving the problem in practicum and they really help you to solve the problem during the time training	438	.881

Reliability Statistics

Cronbach's Alpha	N of Items
.898	3

Item-Total Statistics

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
M1	11.32	22.446	.681	.896
M2	11.45	15.955	.829	.861
M3	11.54	16.679	.857	.850
M4	11.53	16.890	.843	.854
M5	11.33	22.619	.648	.901

(Source: The researcher's collecting data and SPSS)

Table 4 showed that there were 450 trainees interviewed and related the quality of vocational education in the Mekong Delta but 438 trainees processed and answered 5 questions. Besides, Std. Deviation is around 1.0 and Cronbach's Alpha is 0.898 (> 0.6). This showed that the Data is very good for the next analysis.

Table 5: Descriptive Statistics and Cronbach's Alpha for The quality of vocational education (QE)

Items	N	Std. Deviation
QE1: The knowledge, skills and behavior were improved in job and life after you trained	438	.573
QE2: You meet the job requirements and other need after you trained	438	.586
QE3: Your labor productivity and income improved after you trained	438	.670

Reliability Statistics

Cronbach's Alpha	N of Items
.944	3

Item-Total Statistics

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
QE1	6.64	1.415	.938	.880
QE2	7.64	1.394	.927	.886
QE3	5.70	1.331	.802	.991

(Source: The researcher's collecting data and SPSS)

Table 5 showed that there were 450 trainees interviewed and related the quality of vocational education in the Mekong Delta but 438 trainees processed and answered 3 questions. Besides, Std. Deviation is around 1.0 and Cronbach's Alpha is 0.944 (> 0.6). This showed that the Data is very good for the next analysis.

Exploratory Factor Analysis

Cronbach's alpha is computed in terms of average inter-correlations among items, which determine the concepts. Although Bryman and Cramer (1990) suggested that, it is just fine when Cronbach's alpha is 0.8 or above 0.8, while Nunnally (1978) stated that it is still acceptable with the value of 0.6, especially for initial investigation like in this research. Therefore, in this research, the value is confirmed when it is greater than 0.7.

All of components are very good for this research. Continue author analyzed the EFA to assess more accurately the scale, helping the uniform scale in research. Thus, based on the authors EFA analysis will evaluate the homogeneity of the observed variables and can be classified because of specific variables. Besides, Cronbach alpha coefficient if the removal variables is more than 0.6. In addition, the correlation coefficient of the total variations is more than 0.3.

Table 6: Total Variance Explained for factors of the quality of vocational education in the Mekong Delta

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.808
Bartlett's Test of Sphericity	Approx. Chi-Square	10383.581
	df	190
	Sig.	.000

Com.	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.490	32.450	32.450	6.490	32.450	32.450	5.490
2	4.226	21.128	53.578	4.226	21.128	53.578	4.240
3	3.275	16.375	69.953	3.275	16.375	69.953	3.847
4	1.391	6.953	76.906	1.391	6.953	76.906	4.977
5	.994	4.971	81.877				
6	.791	3.954	85.831				
7	.672	3.361	89.192				
8	.479	2.394	91.585				
9	.330	1.650	93.236				
10	.296	1.479	94.715				
11	.258	1.290	96.005				
12	.221	1.107	97.112				
13	.148	.740	97.853				
14	.107	.537	98.390				
15	.087	.433	98.823				
16	.070	.349	99.172				
17	.054	.268	99.440				
18	.052	.262	99.702				
19	.045	.223	99.926				
20	.015	.074	100.000				

(Source: The researcher's collecting data and SPSS)

The table 6 showed that Kaiser-Meyer-Olkin Measure of Sampling Adequacy was statistically significant and high data reliability (KMO = 0.808 > 0.6). This result was very good for data analysis. Table 6 showed that Cumulative percent was statistically significant and high data reliability was 76.906% (> 60 %). This is factors for independent variables.

Besides, the KMO & Bartlett's Test of Sphericity is a measure of sampling adequacy that recommended checking the case to variable ratio for the analysis conducted. In most academic and business studies, KMO & Bartlett's test play an important role for accepting the sample adequacy. While the KMO ranges from 0 to 1, the world-over accepted index is over 0.6.

Table 7: Rotated Component Matrixa for of the quality of vocational education in the Mekong Delta

Pattern Matrix[a]

Code	Component			
	1	2	3	4
L2	.973			
L1	.968			
L6	.755			
L5	.745			
L3	.641			
L4	.620			
F1		.951		
F2		.935		
F5		.895		
F4		.882		
F3		.852		
M2			.887	
M3			.883	
M4			.873	
M1			.813	
M5			.797	
C3				.932
C2				.917
C1				.752
C4				.744

Extraction Method: Principal Component Analysis.
 Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 5 iterations.
(Source: The researcher's collecting data and SPSS)

The table 7 showed that Structure Matrix for the factors of the quality of vocational education had 4 components. Component 1 was Lecturer (X1), Component 2 was Facilities (X2), Component 3 was Method of delivery (X3) and Component 4 is Curriculums (X4) for of the quality of vocational education.

Conclusions and Recommendations

Conclusions

The aim of this study is to identify the factors on the quality of vocational education in the Mekong Delta. The data analysis for this study is a quantitative type. The quality level and the quality of vocational education analyzed based on the data gathered from the trainees. Therefore, in this research, the quality of vocational education is the dependent variables, while factors to successful of the quality of vocational education are the independent variables.

This research results provide an insight of the quality of vocational education in the Mekong Delta. This study has collected different observations and analysis about the quality of vocational education in the Mekong Delta. Besides, the research is the above-mentioned factors of the quality of vocational education in the Mekong Delta and how the quality of vocational education can be measured through surveying the trainees.

Recommendations

Recommendations for the educational managers in Mekong Delta

The educational managers in Mekong Delta should continue radical innovations, comprehensive education and training to meet the requirements of industrialization and modernization in conditions of market economy socialist orientation and international integration for the sustainable development of agriculture sector. Besides, the educational managers in Mekong Delta should continue to make many focal points for managing and improving organizational apparatus of state management of educational quality.

In addition, the educational managers in Mekong Delta should continue to implement innovative education programs; continue to implement innovative vocational education and universities focused on strengthening and improving the quality of education; continue to implement projects to improve the quality of teaching and learning many skills of foreign languages, information in the national education system. The educational managers in Mekong Delta should continue to implement the plan of human development and continue implementation of the program development the teachers in 2020. The educational managers in Mekong Delta support the Vietnam Government about policy for training teachers. Continue implementation of incentives for physical and spiritual motivation for teachers and education managers. Finally, the educational managers in Mekong Delta should continue to build and deploy the projects, the national target programs, to strengthen infrastructure development, education and quality training to meet enterprises' demand, society's need and economic development in Vietnam. The training activities in general need to be considered seriously. Trainees, trainers, lectures and training programs coordinators and administrators need to be knowledgeable, well-trained, well-educated and experienced.

Recommendations for the future Research

The above-mentioned things, the next research should survey more than 450 the trainees in other provinces of Vietnam. This helps the data that is more significant. It is very big subject. The next research should survey more than 26 the questions or items in components of the quality of vocational education in other provinces of Vietnam.

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