Identification of a Competency Model for the Recruitment, Retention & Development of Intermodal Transportation Workers

Project Timeframe: 9/1/2008 – 9/30/2009

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Project Objectives

The objective of this research project will be to develop a detailed and valid model of the managerial and executive competencies that are need to recruit assess train and develop the next generation of executives and managers that will guide the intermodal transportation industry. Research in other industries has shown that the use of well validated assessment instrument can add significantly to the accuracy in selection and evaluation of potential candidates as well as their long term success in the industry. The development of a competency model will allow training units for various intermodal organizations to more efficiently utilize their available training dollars in the development of key personnel. Finally, by identify in these key competencies HR departments in the various organizations will be able to more effectively recruit for the key competencies needed to work in these organizations. The development of this model will contribute to the development of key recommendations needed to ensure enhanced and continued productivity in the industry.

Project Abstract

The objective of this research project will be to develop a detailed and valid model of the managerial and executive competencies that are needed to recruit retain and develop the next generation of executives and managers that will guide the intermodal transportation industry. Currently, identification of qualified managers is based on the intuitive

decisions made by key individuals at higher levels of the organizations in which they work. While these piratical recommendations are useful they are not often as effective as the processes used in many other more well-established organization. This is primarily due to the lack of a well-defined model of managerial competency for the intermodal transportation industry. Research in other industries has shown however, that the use of a well validated assessment instruments can add significantly to the accuracy in selection and evaluation of potential candidates. It should also be noted that a small pilot project looking at the identification of factors influencing the entry of individuals into the rail transportation industry was recently undertaken by the FRA. In addition, a series of presentations on the need for this type of model was outlined in a speech given at the previous AASHTO meeting (personal communication - Horsely, 2008).

The project will proceed in several steps. First, there will be needs assessment conducted with key HR leaders from various intermodal transportation companies to identify potential competencies. Representatives of ten different organizations have already committed the time and resources to travel to a meeting to begin this undertaking regardless of the outcome of this funding request and to serve as stakeholders and consultants to the project. Next, following the needs assessment a process of validating the suggested competencies from a sample of selected executives will be undertaken. This will consist of having several key individuals utilize the experimental competencies and have them cross-rated against existing supervisory assessments of current skills. Some travel may be needed in order to gather these data. Statistical and psychometric analyses of these cross validation efforts will be used to verify the accuracy of these assessments. Following this assessment a next step will be to apply this instrument to a sample of prospective applicants or candidates for promotion to determine whether the instruments accurately identify key competencies according to ratings of trained observers. Correspondence of observed ratings with expert opinions and assessment of HR manager's perspectives will be the final step in the validation process. Finally, with a validated instrument a set of recommendations for developing present and future managers and the identification of effective training programs will be developed and published for the industry.

Task Description
To complete the proposed project the following action steps will be pursued sequentially and concurrently:

1) First, there will be needs assessment conducted with key HR leaders from various intermodal transportation companies to identify potential competencies. Representatives of ten different organizations have already committed the time and resources to travel to a meeting to begin this undertaking regardless of the outcome of this funding request and to serve as stakeholders and consultants to the project.

2) Second, following the needs assessment, a process of validating the suggested competencies from a sample of selected executives will be undertaken. This will consist of having several key individuals utilize the experimental competencies and have them cross-rated against existing supervisory assessments and ratings of current skills. Travel to constituent organizations

will be needed in order to gather these data. Statistical and psychometric analyses of these cross validation efforts will be used to verify the accuracy of these assessments.

3) Third, we will apply this experimental competency model instrument to a sample of prospective applicants or candidates for promotion to determine whether the instruments accurately identify key competencies according to ratings of trained observers. Correspondence of observed ratings with expert opinions and assessment of HR manager's perspectives will be the final step in the validation process. This will serve as the final validation step and a finished product will have been developed.

4) Finally, with a validated instrument a set of recommendations for developing present and future managers and the identification of effective training programs will be developed and published for the industry.

Technology Transfer

At least one paper will be prepared and submitted to a refereed conference, such as the TRB Annual Meeting, for presentation. An additional conference presentation will made at the Global Supply Chain Conference in Atlanta. At least one paper will be submitted to appropriate transportation journals, such as the *World Review of Intermodal Transportation Research*.   Results of the proposed project will also be disseminated through the various websites associated with NCIT and ITI where those interested will be able to access the final report.

Benefits of Project

There are a number of key benefits of this project. First, it will provide a much needed practical and conceptual framework for identifying key potential entry level and higher level leaders for the intermodal transportation industry. It will also provide a framework, that is currently missing in the industry to target and funnel limited training and education dollars into the proper activities to develop the next generation of leaders. Lastly, the project will eventually lead to the training and education of employees, supervisors, and professionals involved in intermodal transportation with the result of improving the productivity and efficiency of the industry.