Chapter 10
Partnering Performance Measurement Model for Automobile Assembly Makers and Suppliers

ABSTRACT

In the midst of the rapid advancement of globalization–worldwide quality competition, Japanese manufacturers are struggling to realize the simultaneous achievement of QCD (quality, cost, and delivery), reduction in product development periods, assurance of high quality, and production at low cost. It can be said that they are truly facing an era of new manufacturing in the process of simultaneous achievement of QCD. In recent years, the management issue in the Japanese automobile industry playing a key role in Japanese manufacturing is worldwide uniform quality and simultaneous production launch, in response to current globalization. To realize this, it is vital to reinforce Japanese-style partnering, or Japan Supply Chain Management, between automobile manufacturers and parts suppliers. Against this background, this chapter creates and verifies the effectiveness of Partnering Performance Measurement Model (PPMM) for automobile assembly makers and suppliers.

INTRODUCTION

In the midst of the rapid advancement of "globalization–worldwide quality competition", Japanese manufacturers are struggling to realize the "simultaneous achievement of QCD (quality, cost and delivery)", "reduction in product development periods", "assurance of high quality" and "production at low cost". It can be said that they are truly facing an era of new manufacturing in the process of "simultaneous achievement of QCD" (Amasaka, 2008a, 2009a,b; Amasaka, Ed., 2007; Amasaka and Sakai, 2010).

For a total assembly industry like auto manufacturing, not only is quality management for parts and units essential, but optimizing manufacturer assembly technology, as well as assuring consistent quality from manufacturing through to sales and service, is a must. If a vehicle manufacturer or supplier wants

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to improve the reliability of products manufactured in-house, quality management is crucial to jointly improving the reliability of both members' business processes. It is safe to say that cooperative activities using Strategic Stratified Task Team (SSTTN) requiring the ability to solve problems will remain important in the future (Amasaka, 2004a) (Refer to Chapter 8) .

In this corporate management environment, the "key to success in global production" is the reinforcement of product power, or "simultaneous achievement of QCD" (Amasaka, 2008a). To realize this, it is vital to reinforce Japanese-style partnering, or Supply Chain Management (SCM) between automobile manufacturers and parts suppliers (Amasaka, 2008a, 2009a). This is also called the Japan Supply System (JSS) (Amasaka, 2000). Against this background, in this section, the author has created the Partnering Performance Measurement Model (PPMM) for assembly makers and suppliers and verifies its effectiveness as the application study of driving force in NMT (New Manufacturing Theory) strategy (Sakatoku, 2006: Yamaji, et al., 2008; Amasaka, 2008b, 2013, 2019). The purpose of PPMM is to formulate the actual status of "Japanese partnering" between automobile manufacturers and parts suppliers for clearer evaluation and diagnosis.

This PPMM has been somewhat implicitly carried out in the past, and it is viewed as the basis for deploying "Global SCM", and applying "Constructing measures of CS effectiveness at manufactures" and others (Ebioka et al., 2007; Yamaji and Amasaka, 2007; Amasaka, 2009a,b,c; Ishikawa et al., 2011; Nakamura et al., 2011; Uchida et al., 2012; Ishiguro and Amasaka, 2012; Okihara et al., 2014).

SIGNIFICANCE OF STRENGTHENING THE CORPORATE MANAGEMENT OF JAPANESE AUTOMOBILE ASSEMBLY MAKERS AND SUPPLIERS

In recent years, the management issue in the Japanese automobile industry playing a key role in Japanese manufacturing is "worldwide uniform quality, simultaneous production launch" in response to current globalization (Amasaka, 2004a, 2007a). In this corporate management environment, the "key to success in global production" is the reinforcement of product power, or the "simultaneous achievement of QCD" (Amasaka, 2008, 2009a). To realize this, it is vital to reinforce Japanese-style partnering, or "partnering of competition and collaboration - Japan Supply Chain Management" between automobile manufacturers (hereafter termed "assembly makers") and affiliated or non-affiliated parts manufacturers (hereafter termed "suppliers") (Amasaka, 2008a, 2009a). This is also called the Japan Supply System (JSS) as shown in Figure 3, Chapter 8 (Refer to Chapter 8 in detail).

For further advancement in this area, assembly makers should not only reinforce internal partnering with their own operational departments (such as engineering, production, and sales), but must also strengthen "external partnering". This means establishing cooperative relationships with other companies while advancing and establishing "global partnering" through strategic collaboration with both foreign and domestic Suppliers. To implement such reinforcements, it is fundamental that a new "Partnering Performance Measurement" be deployed. This measurement should serve as a formulation model (radar chart for visualization) for evaluating the actual status of "Japanese Partnering" between assembly makers and parts suppliers, which has been somewhat implicitly carried out in the past.