

# Chapter 1

## Introduction

### ABSTRACT

*In this book, by predicting the form of next generation automobile manufacturing, the author examines a new automobile global manufacturing system (NAGMS) that contains the hardware system with five core elements—TDS, TPS, TMS, TIS, and TJS (total development system, total production system, total marketing system, total intelligence management system, and total job quality management system)—for transforming management technology into automobile management strategy—surpassing JIT.*

### INTRODUCTION

The increasing sophistication and diversification of customers' wants are needed for the development of global production, which acts in concert with the overseas deployment of production bases, a pressing management issue (Amasaka, 2002, 2004). A future successful global marketer must develop an excellent management technology system that impresses users and continuously provides excellent, quality products in a timely manner through strategic corporate management (Amasaka, 2007a, 2008a).

To succeed in global production, achieving worldwide uniform quality and simultaneous launch (production at optimal locations) is an urgent task. The simultaneous achievement of QCD requirements that reinforce the product appeal is required to realize this global production system (Amasaka, 2008b) (Refer to Chapter 2 in Part I).

The Japanese management technology that made the biggest impact on the world in the latter half of the 20<sup>th</sup> century was the Toyota Production System. It is often also referred to as Just-in-Time (JIT) or Total Quality Management (TQM) (Ohno, 1977; Amasaka, 1988, 2002). As Toyota Production System became practiced as Lean System around the world and was further developed, it lost its status as a Japanese production system. In recent years, the superior quality of Japanese products has rapidly lost ground (Womack et al., 1990; Goto, 1999; Taylor and Brunt. 2001; Amasaka, 2002, 2004, 2007, 2008) (Refer to Chapter 3 in Part I).

To be successful in the near future, a global marketer must develop an excellent management technology that can impress customers and continuously provide high value products in a timely manner (Refer to Chapter 4 in Part I).

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Against this background, in this book, by predicting the form of next generation automobile manufacturing, the author hereby examines a “New Automobile Global Manufacturing System” (NAGMS) that contains the hardware system with five core elements - “TDS, TPS, TMS, TIS and TJS” (Total Development System, Total Production System, Total Marketing System, Total Intelligence Management System and Total Job Quality Management System) for transforming management technology into automobile management strategy—Surpassing JIT (Amasaka, 2002, 2004, 2007a,b, 2008a,b, 2010). (Refer to Chapter 5 in Part I),

To realize automobile manufacturing that places top priority on customers with a good QCD, the author, therefore, a high linkage model “Advanced TDS, TPS, TMS, TIS and TJS” for expanding “uniform quality worldwide and production at optimum locations” (Amasaka, 2007c,d, 2012, 2013; Ebioka et al., 2007; Yamaji et al., 2007; Sakai and Amasaka, 2007a,b, 2008). (Refer to Chapter 6 in Part I).

The focus of this book is thus the theory and application of strategic management technology through the application of NAGMS for the “Evolution of Japan automobile manufacturing foundation” (Refer to Chapter 7 in Part I). As these results, developing of NAGMS has proved to be effective in actual implementations. Concretely, the author introduces the application examples through “Expanding Japanese automobile uniform quality and production at optimum locations through SCM strategy in the world” (Refer to Chapter 8 to 11 in Part II).

Moreover, through “Automobile simultaneous QCD fulfilment for customer value creation” with “Application examples”, the validity of NAGMS is then verified at an advanced car manufacturer Toyota and others (Amasaka, Ed., 2012; Amasaka, 2014a,b, 2015, 2017, 2019) (Refer to Chapter 12 to 24 in Part III to IV).

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