# CHAPTER 7

# ANALYSING THE IMPLEMENTATION BARRIERS OF POSITIONING STRATEGY: A RESOURCE BASED PERSPECTIVE FOR APPAREL RETAILING

The customer perceived value, design requirements, and the priority of design requirements were discussed in previous chapters. These priority requirements can help the decision-makers and managers to implement the competitive positioning strategy. For any strategy implementation, the most crucial factor that is known as resources cannot be ignored. Proper utilization of resources helps the firm to improve productivity and during strategy implementation. If the firm fails to identify and utilize the resources, it can be detrimental to the firm. This chapter discusses the resources (in section 2.4) and classifies them into cause and effect groups.

## 7.1 Introduction

In the Indian apparel retailing sector, there is a high level of competition to attract and retain customers. Retailers want to fulfill the requirement of customers by offering the best services to their contenders. Cost control is the traditional way to get more revenue, but it does not give any reason to attract the customer. In contrast, a firm's resource-based view can help attract customers using theirs under-controlled resources. Therefore, a positioning strategy is required to enhance the firms' performance using firms' resources. Positioning strategies directly impact sales performance, profits, market share, consumer perception, and return on investment (Blankson and Crawford, 2012; Kalra and Goodstein, 1998). Amonini et al. (2010) consider competitive positioning attributes of service firms by focusing on utilizing relationships, service quality, brand reputation, and value. For retail, Service is perceived to be the most distinguishing feature of competitive positioning (Harmen Oppewal et al., 2011).

Chapter 5 showed nine factors to strengthen the positioning strategy in terms of enhanced service performance and value creation. This study extends the work with a focus on significant barriers in the way of strategy implementation.

According to Grewal et al. (2010, p. 29), those retailers who try to achieve value differentiation and cost control all together will succeed in the coming decade. The CPS is essential for retailers, not only for their survival but for growth too. According to Ranjbar and Shirazi (2014), strategy implementation is the central challenge to firms and managers in recent decades. Many small retailers offer similar products to their customers; due to this reason, differentiation is rarely achieved (Hooley et al., 2008, p. 302). Therefore, store position has more importance than product position. DiMingo (1988) proposed two types of positioning: firm-oriented or market positioning and psychological positioning or customer-oriented. In the current scenario, the organized retailer mainly focuses on the psychological positioning with their depth product variety and better service. Thus, local retailers face two-sided competition: from organized retailers and the other is from their counterparts. Therefore, to establish a competitive position in the market, it must know the strengthening factors and the barriers to implementing the CPS.

The implementation of the CPS requires the identification of critical barriers. These barriers are known as competitive positioning implementation barriers (CPIBs). The basic approach of positioning is to manipulate the existing things rather than creating new and different ones. Therefore, some internal factors and some outside factors hinder the implementation of the firm's positioning strategy. In the present research work, there are the following two objectives:

**RQ1:** To identify the CPIBs for effective implementation of CPS in apparel retailing firms.

**RQ2:** To uncover the causal relationships among the identified CPIBs and classify them into cause and effect for CPS in the apparel retailing firm.

A Grey-DEMATEL (GDEMATEL) has been used to quantify the effects of one factor over others. This method is applicable in a wide variety of managerial and decision-making environments. This research can help for future research in building resilient positioning of retail stores. The study structure is as follows: It starts with introducing the barriers of competitive positioning, followed by the literature review on CPIBs concerning the Indian apparel retail firms' case. Then, the discussions on establishing the variables and about the GDEMATEL approach. It ends with brief discussions on findings, Sensitivity analysis, and in the end conclusion with managerial implications and future scope has been explained.

### 7.1.1 Gap analysis and research highlights

Fashion retailers typically exhibit short life cycles, high volatility, and an unpredictable environment (Nucamendi-Guillén et al., 2018). According to Ranjbar and Shirazi (2014), strategy implementation is the central challenge to firms and managers in recent decades. Implementing the CPS, identifying barriers, analyzing relationships, and the dependencies of barriers can make the decision complex. Therefore, DEMATEL methodology can be used to analyze the interrelationship by considering the strength of relationships and interdependencies (Zhu et al., 2015) with small-sized samples (Govindan and Chaudhuri, 2016). However, this method can suffer from human biases, incomplete information, and uncertainty (Luthra et al., 2018). To overcome this problem, the Grey theory has been applied. This theory can make better decisions in an unpredictable environment (Cui, et al., 2019; Rajesh and Ravi, 2015). This study may

be one of the first to consider the implementation barriers of CPS and classification of barriers based on RBT and Dynamic capability in the Indian apparel retailing context.

## 7.2 Methodology

For the objectives mentioned earlier, GDEMATEL is used. The overview diagram and the steps involved in this method have been discussed in section 3.4. In this chapter, the application of GDEMATEL is used to classify the cause and effect factors.

### 7.2.1 Application of the Grey-DEMATEL

This methodology is used to investigate the barriers of CPS implementation in the apparel retailing context. A total of 20 experts from different reputed stores were contacted and requested to participate in the survey. Four experts with high qualifications and tremendous decision-making skills were formed. They have more than ten years of experience and worked as a senior manager in different famous apparel retailing firms. The list of barriers was presented before them, and asked to add or delete any of the barriers they were thought essential/not essential in implementing the CPS in apparel retailing firms. In response, experts agreed on the literature-based 17 barriers (Table 2.3) and did not modify the list with any deletion or addition. Therefore, all 17 barriers were selected for CPS implementation in apparel retailing firms. After finalizing the barriers, experts were asked to add barriers if needed and evaluated CPS implementation barriers' direct effect (Appendix C). They evaluated one barrier over another for their direct relation using a linguistic scale (see Table 7.1).

**Table 7.1:** Scale and values for linguistic assessment

| **Linguistic assessment** | No influence | Very low influence | Low influence | Strong influence | Very strong influence |
|---|---|---|---|---|---|
| **Scale** | **0** | **1** | **2** | **3** | **4** |
| **Associated grey values** | (0, 0) | (0, 0.25) | (0.25, 0.5) | (0.5, 0.75) | (0.75, 1) |

In ***step 2,*** experts' opinion has been taken in integer scale (Table 7.2) and need to be converted in Grey values with table 7.1. The converted Grey relation matrix of each expert is denoted by ($[\otimes X_{ij}^{1}]$, $[\otimes X_{ij}^{2}]$, $[\otimes X_{ij}^{3}]$and $[\otimes X_{ij}^{4}]$).

**Table 7.2:** Initial relation matrix from all experts

| | | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | B15 | B16 | B17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Expert 1** | **B1** | 0 | 1 | 4 | 4 | 4 | 4 | 3 | 4 | 0 | 4 | 4 | 0 | 0 | 0 | 3 | 0 | 2 |
| | **B2** | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 |
| | **B3** | 0 | 0 | 0 | 0 | 3 | 3 | 4 | 0 | 4 | 3 | 3 | 4 | 0 | 0 | 3 | 0 | 0 |
| | **B4** | 0 | 1 | 0 | 0 | 4 | 3 | 4 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 3 | 2 | 4 |
| | **B5** | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B6** | 0 | 0 | 0 | 4 | 3 | 0 | 3 | 0 | 3 | 4 | 3 | 0 | 0 | 0 | 3 | 0 | 0 |
| | **B7** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B8** | 4 | 0 | 3 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | **B9** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B10** | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| | **B11** | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B12** | 0 | 0 | 3 | 3 | 3 | 3 | 4 | 0 | 3 | 3 | 2 | 0 | 4 | 4 | 0 | 0 | 3 |
| | **B13** | 0 | 0 | 0 | 3 | 4 | 0 | 3 | 0 | 3 | 3 | 4 | 3 | 0 | 0 | 4 | 0 | 3 |
| | **B14** | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| | **B15** | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 4 |
| | **B16** | 0 | 0 | 0 | 4 | 4 | 3 | 2 | 0 | 4 | 0 | 4 | 0 | 4 | 4 | 3 | 0 | 4 |
| | **B17** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Expert 2** | **B1** | 0 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 1 | 2 | 2 | 0 | 0 | 0 | 4 | 0 | 3 |
| | **B2** | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 3 |
| | **B3** | 2 | 0 | 0 | 0 | 2 | 2 | 3 | 3 | 4 | 3 | 3 | 4 | 0 | 0 | 3 | 0 | 0 |
| | **B4** | 0 | 1 | 0 | 0 | 4 | 3 | 4 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 3 | 2 | 4 |
| | **B5** | 1 | 1 | 1 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B6** | 0 | 0 | 0 | 4 | 3 | 0 | 3 | 0 | 3 | 4 | 2 | 0 | 0 | 0 | 3 | 0 | 0 |
| | **B7** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B8** | 4 | 0 | 3 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 3 | 3 | 3 | 0 | 3 | 3 | 2 |
| | **B9** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B10** | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| | **B11** | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B12** | 0 | 0 | 3 | 3 | 3 | 3 | 4 | 0 | 3 | 3 | 4 | 0 | 4 | 4 | 0 | 0 | 3 |
| | **B13** | 0 | 0 | 0 | 3 | 4 | 0 | 3 | 0 | 3 | 3 | 4 | 3 | 0 | 0 | 4 | 0 | 3 |
| | **B14** | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 |
| | **B15** | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| | **B16** | 0 | 0 | 0 | 3 | 3 | 4 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 4 | 3 | 0 | 3 |
| | **B17** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| **Expert 3** | **B1** | 0 | 0 | 4 | 2 | 4 | 4 | 3 | 4 | 0 | 4 | 4 | 0 | 0 | 0 | 3 | 0 | 3 |
| | **B2** | 4 | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 |
| | **B3** | 0 | 0 | 0 | 0 | 3 | 3 | 4 | 0 | 4 | 3 | 3 | 4 | 0 | 0 | 3 | 0 | 2 |
| | **B4** | 0 | 0 | 0 | 0 | 4 | 3 | 4 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 3 | 2 | 2 |
| | **B5** | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | **B6** | 0 | 0 | 0 | 4 | 3 | 0 | 3 | 0 | 3 | 4 | 2 | 0 | 0 | 0 | 3 | 0 | 3 |
| | **B7** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | **B8** | 4 | 2 | 3 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 3 | 3 | 3 | 0 | 3 | 3 | 2 |
| | **B9** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 |
| | **B10** | 1 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| | **B11** | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B12** | 1 | 0 | 3 | 3 | 3 | 3 | 4 | 0 | 3 | 3 | 2 | 0 | 4 | 4 | 0 | 0 | 3 |
| | **B13** | 1 | 0 | 0 | 3 | 4 | 0 | 3 | 0 | 3 | 3 | 4 | 3 | 0 | 0 | 4 | 0 | 3 |
| | **B14** | 1 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| | **B15** | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| | **B16** | 0 | 0 | 0 | 4 | 4 | 3 | 3 | 0 | 4 | 0 | 4 | 0 | 4 | 4 | 3 | 0 | 3 |
| | **B17** | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Expert 4** | **B1** | 0 | 1 | 4 | 4 | 4 | 4 | 3 | 4 | 0 | 4 | 4 | 0 | 2 | 0 | 3 | 2 | 3 |
| | **B2** | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 |
| | **B3** | 0 | 0 | 0 | 0 | 3 | 3 | 4 | 0 | 4 | 3 | 3 | 4 | 0 | 0 | 3 | 0 | 0 |
| | **B4** | 0 | 1 | 0 | 0 | 4 | 3 | 4 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 3 | 2 | 4 |
| | **B5** | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B6** | 0 | 0 | 0 | 4 | 3 | 0 | 3 | 0 | 3 | 4 | 2 | 0 | 0 | 0 | 3 | 0 | 0 |
| | **B7** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B8** | 2 | 3 | 3 | 4 | 4 | 3 | 3 | 0 | 2 | 2 | 3 | 1 | 1 | 2 | 3 | 3 | 4 |
| | **B9** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B10** | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| | **B11** | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **B12** | 0 | 0 | 3 | 3 | 3 | 3 | 4 | 0 | 3 | 3 | 2 | 0 | 4 | 4 | 0 | 0 | 3 |
| | **B13** | 0 | 0 | 0 | 3 | 4 | 0 | 3 | 0 | 3 | 3 | 4 | 3 | 0 | 0 | 4 | 1 | 3 |
| | **B14** | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| | **B15** | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| | **B16** | 0 | 0 | 0 | 4 | 3 | 4 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 4 | 3 | 0 | 3 |
| | **B17** | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |

In ***step 3,*** equal weights allocated to each expert, and the average Grey relation matrix $\left[\otimes\widetilde{X}_{ij}\right]$ obtained from equation 3.3. This matrix is illustrated in table 7.3.

**Table 7.3:** Average grey relation matrix for barriers

| | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** | **B9** | **B10** | **B11** | **B12** | **B13** | **B14** | **B15** | **B16** | **B17** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **B1** | 0.000 | 0.125 | 0.688 | 0.563 | 0.688 | 0.688 | 0.375 | 0.688 | 0.000 | 0.625 | 0.625 | 0.000 | 0.063 | 0.000 | 0.563 | 0.063 | 0.438 |
| | 0.000 | 0.313 | 0.938 | 0.813 | 0.938 | 0.938 | 0.625 | 0.938 | 0.063 | 0.875 | 0.875 | 0.000 | 0.125 | 0.000 | 0.813 | 0.125 | 0.688 |
| **B2** | 0.688 | 0.000 | 0.063 | 0.313 | 0.063 | 0.063 | 0.063 | 0.625 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.000 | 0.000 | 0.000 | 0.563 |
| | 0.938 | 0.000 | 0.125 | 0.563 | 0.125 | 0.125 | 0.188 | 0.875 | 0.063 | 0.063 | 0.000 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.813 |
| **B3** | 0.063 | 0.000 | 0.000 | 0.000 | 0.438 | 0.438 | 0.688 | 0.125 | 0.750 | 0.500 | 0.500 | 0.750 | 0.000 | 0.000 | 0.500 | 0.000 | 0.063 |
| | 0.125 | 0.000 | 0.000 | 0.000 | 0.688 | 0.688 | 0.938 | 0.188 | 1.000 | 0.750 | 0.750 | 1.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.125 |
| **B4** | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.500 | 0.750 | 0.000 | 0.750 | 0.750 | 0.750 | 0.000 | 0.000 | 0.750 | 0.500 | 0.250 | 0.625 |
| | 0.000 | 0.188 | 0.000 | 0.000 | 1.000 | 0.750 | 1.000 | 0.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.750 | 0.500 | 0.875 |
| **B5** | 0.000 | 0.000 | 0.000 | 0.063 | 0.000 | 0.000 | 0.750 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.063 |
| | 0.063 | 0.063 | 0.063 | 0.125 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.125 |
| **B6** | 0.000 | 0.000 | 0.000 | 0.750 | 0.500 | 0.000 | 0.500 | 0.000 | 0.500 | 0.750 | 0.313 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.125 |
| | 0.000 | 0.000 | 0.000 | 1.000 | 0.750 | 0.000 | 0.750 | 0.000 | 0.750 | 1.000 | 0.563 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.188 |
| **B7** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.063 |
| **B8** | 0.625 | 0.188 | 0.500 | 0.750 | 0.750 | 0.688 | 0.688 | 0.000 | 0.625 | 0.625 | 0.500 | 0.375 | 0.375 | 0.250 | 0.500 | 0.500 | 0.500 |
| | 0.875 | 0.313 | 0.750 | 1.000 | 1.000 | 0.938 | 0.938 | 0.000 | 0.875 | 0.875 | 0.750 | 0.625 | 0.625 | 0.375 | 0.750 | 0.750 | 0.750 |
| **B9** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.063 |
| **B10** | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.125 | 0.125 | 0.125 | 0.500 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 |
| | 0.063 | 0.000 | 0.000 | 0.000 | 0.750 | 0.188 | 0.188 | 0.188 | 0.750 | 0.000 | 0.750 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 |
| **B11** | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 0.063 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| **B12** | 0.000 | 0.000 | 0.500 | 0.500 | 0.500 | 0.500 | 0.750 | 0.000 | 0.500 | 0.500 | 0.375 | 0.000 | 0.750 | 0.750 | 0.000 | 0.000 | 0.500 |
| | 0.063 | 0.000 | 0.750 | 0.750 | 0.750 | 0.750 | 1.000 | 0.000 | 0.750 | 0.750 | 0.625 | 0.000 | 1.000 | 1.000 | 0.000 | 0.000 | 0.750 |
| **B13** | 0.000 | 0.000 | 0.000 | 0.500 | 0.750 | 0.000 | 0.500 | 0.000 | 0.500 | 0.500 | 0.750 | 0.500 | 0.000 | 0.000 | 0.750 | 0.000 | 0.500 |
| | 0.063 | 0.000 | 0.000 | 0.750 | 1.000 | 0.000 | 0.750 | 0.000 | 0.750 | 0.750 | 1.000 | 0.750 | 0.000 | 0.000 | 1.000 | 0.063 | 0.750 |
| **B14** | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 0.063 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.750 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.063 | 0.000 | 0.000 |
| **B15** | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.500 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.563 |
| | 0.063 | 0.000 | 0.000 | 0.000 | 0.750 | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 | 0.750 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.813 |
| **B16** | 0.000 | 0.000 | 0.000 | 0.688 | 0.625 | 0.625 | 0.563 | 0.000 | 0.750 | 0.000 | 0.750 | 0.000 | 0.750 | 0.750 | 0.500 | 0.000 | 0.563 |
| | 0.000 | 0.000 | 0.000 | 0.938 | 0.875 | 0.875 | 0.813 | 0.000 | 1.000 | 0.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.750 | 0.000 | 0.813 |
| **B17** | 0.188 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.125 | 0.000 |
| | 0.375 | 0.063 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.000 |

***B1** is the implementation barrier, and in relation, its Grey lower average limit value is in the upper box, and upper average limit value is in the lower box; similarly, we read all values in relation.

In ***step 4,*** the final crisp relation matrix obtained with the average Grey relation matrix (table 7.3) using equation no. 3.5 to 3.10. The obtained matrix is illustrated in table 7.4.

**Table 7.4**: Final crisp relation matrix for barriers

| | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** | **B9** | **B10** | **B11** | **B12** | **B13** | **B14** | **B15** | **B16** | **B17** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **B1** | 0.000 | 0.242 | 0.885 | 0.725 | 0.875 | 0.885 | 0.500 | 0.885 | 0.004 | 0.800 | 0.800 | 0.000 | 0.070 | 0.000 | 0.725 | 0.072 | 0.590 |
| **B2** | 0.885 | 0.000 | 0.070 | 0.425 | 0.070 | 0.070 | 0.083 | 0.809 | 0.004 | 0.004 | 0.000 | 0.000 | 0.350 | 0.000 | 0.000 | 0.000 | 0.743 |
| **B3** | 0.070 | 0.000 | 0.000 | 0.000 | 0.575 | 0.582 | 0.875 | 0.137 | 0.950 | 0.650 | 0.650 | 0.950 | 0.000 | 0.000 | 0.650 | 0.000 | 0.071 |
| **B4** | 0.000 | 0.070 | 0.000 | 0.000 | 0.950 | 0.658 | 0.950 | 0.000 | 0.950 | 0.950 | 0.950 | 0.000 | 0.000 | 0.950 | 0.650 | 0.375 | 0.819 |
| **B5** | 0.004 | 0.010 | 0.004 | 0.070 | 0.000 | 0.000 | 0.950 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.071 |
| **B6** | 0.000 | 0.000 | 0.000 | 0.950 | 0.650 | 0.000 | 0.650 | 0.000 | 0.650 | 0.950 | 0.425 | 0.000 | 0.000 | 0.000 | 0.650 | 0.000 | 0.138 |
| **B7** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.004 |
| **B8** | 0.809 | 0.277 | 0.658 | 0.950 | 0.950 | 0.885 | 0.875 | 0.000 | 0.800 | 0.800 | 0.650 | 0.500 | 0.500 | 0.292 | 0.650 | 0.688 | 0.667 |
| **B9** | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.650 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.004 |
| **B10** | 0.004 | 0.000 | 0.000 | 0.000 | 0.650 | 0.137 | 0.136 | 0.137 | 0.650 | 0.000 | 0.650 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.667 |
| **B11** | 0.004 | 0.000 | 0.000 | 0.000 | 0.950 | 0.000 | 0.000 | 0.000 | 0.000 | 0.950 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| **B12** | 0.004 | 0.000 | 0.658 | 0.650 | 0.650 | 0.658 | 0.950 | 0.000 | 0.650 | 0.650 | 0.500 | 0.000 | 0.950 | 0.950 | 0.000 | 0.000 | 0.667 |
| **B13** | 0.004 | 0.000 | 0.000 | 0.650 | 0.950 | 0.000 | 0.650 | 0.000 | 0.650 | 0.650 | 0.950 | 0.650 | 0.000 | 0.000 | 0.950 | 0.005 | 0.667 |
| **B14** | 0.004 | 0.000 | 0.000 | 0.000 | 0.950 | 0.000 | 0.650 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.650 | 0.000 | 0.004 | 0.000 | 0.000 |
| **B15** | 0.004 | 0.000 | 0.000 | 0.000 | 0.650 | 0.000 | 0.000 | 0.000 | 0.000 | 0.650 | 0.650 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.743 |
| **B16** | 0.000 | 0.000 | 0.000 | 0.875 | 0.800 | 0.809 | 0.725 | 0.000 | 0.950 | 0.000 | 0.950 | 0.000 | 0.950 | 0.950 | 0.650 | 0.000 | 0.743 |
| **B17** | 0.250 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.161 | 0.000 |

In ***step 5,*** normalized direct, crisp relation matrix [z] obtained using equation 3.11. In the ***next step,*** Total relation matrix T obtained with the help of equation 3.12. The obtained matrix is illustrated in table 7.5.

**Table 7.5:** Total relation matrix for implementation barriers of CPS

| | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** | **B9** | **B10** | **B11** | **B12** | **B13** | **B14** | **B15** | **B16** | **B17** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **B1** | 0.015 | 0.029 | 0.101 | 0.104 | **0.163** | **0.120** | 0.113 | 0.099 | 0.051 | **0.144** | **0.138** | 0.016 | 0.018 | 0.017 | 0.108 | 0.020 | 0.106 |
| **B2** | 0.103 | 0.006 | 0.024 | 0.070 | 0.052 | 0.034 | 0.045 | 0.094 | 0.027 | 0.038 | 0.037 | 0.010 | 0.045 | 0.012 | 0.028 | 0.012 | 0.107 |
| **B3** | 0.010 | 0.001 | 0.009 | 0.018 | 0.101 | 0.073 | **0.123** | 0.017 | **0.122** | 0.102 | 0.102 | 0.101 | 0.012 | 0.012 | 0.077 | 0.003 | 0.034 |
| **B4** | 0.004 | 0.008 | 0.001 | 0.014 | **0.147** | 0.075 | **0.132** | 0.003 | **0.118** | **0.126** | **0.130** | 0.001 | 0.012 | 0.104 | 0.078 | 0.041 | 0.108 |
| **B5** | 0.001 | 0.001 | 0.000 | 0.007 | 0.001 | 0.001 | 0.099 | 0.000 | 0.001 | 0.001 | 0.001 | 0.000 | 0.000 | 0.001 | 0.001 | 0.000 | 0.008 |
| **B6** | 0.001 | 0.001 | 0.000 | 0.101 | 0.100 | 0.009 | 0.091 | 0.002 | 0.087 | **0.122** | 0.074 | 0.000 | 0.001 | 0.010 | 0.075 | 0.005 | 0.039 |
| **B7** | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| **B8** | 0.092 | 0.033 | 0.082 | **0.139** | **0.192** | **0.129** | **0.169** | 0.015 | **0.142** | **0.155** | **0.146** | 0.065 | 0.073 | 0.059 | 0.111 | 0.080 | **0.129** |
| **B9** | 0.000 | 0.000 | 0.000 | 0.000 | 0.007 | 0.000 | 0.001 | 0.000 | 0.001 | 0.007 | 0.068 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 |
| **B10** | 0.004 | 0.001 | 0.001 | 0.004 | 0.080 | 0.017 | 0.026 | 0.015 | 0.071 | 0.011 | 0.076 | 0.001 | 0.001 | 0.001 | 0.003 | 0.002 | 0.073 |
| **B11** | 0.001 | 0.000 | 0.000 | 0.001 | 0.106 | 0.002 | 0.012 | 0.002 | 0.007 | 0.100 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.008 |
| **B12** | 0.004 | 0.001 | 0.070 | 0.085 | **0.127** | 0.082 | **0.149** | 0.003 | 0.104 | 0.108 | 0.097 | 0.014 | 0.108 | 0.109 | 0.027 | 0.005 | 0.098 |
| **B13** | 0.003 | 0.001 | 0.005 | 0.076 | **0.142** | 0.012 | 0.100 | 0.002 | 0.089 | 0.102 | **0.132** | 0.068 | 0.008 | 0.015 | 0.106 | 0.005 | 0.098 |
| **B14** | 0.001 | 0.000 | 0.000 | 0.006 | 0.108 | 0.001 | 0.084 | 0.000 | 0.006 | 0.007 | 0.009 | 0.005 | 0.068 | 0.001 | 0.008 | 0.000 | 0.008 |
| **B15** | 0.003 | 0.000 | 0.000 | 0.001 | 0.080 | 0.002 | 0.010 | 0.001 | 0.006 | 0.075 | 0.073 | 0.000 | 0.000 | 0.000 | 0.001 | 0.002 | 0.083 |
| **B16** | 0.003 | 0.001 | 0.001 | 0.109 | **0.146** | 0.093 | **0.123** | 0.001 | **0.127** | 0.048 | **0.143** | 0.007 | 0.107 | 0.110 | 0.092 | 0.006 | 0.108 |
| **B17** | 0.026 | 0.002 | 0.003 | 0.005 | 0.007 | 0.005 | 0.005 | 0.003 | 0.003 | 0.005 | 0.006 | 0.001 | 0.002 | 0.002 | 0.004 | 0.017 | 0.005 |

In ***step 7,*** $R_i$ and $C_j$ be calculated using the elements of matrix **T** and equations 3.13 and 3.14. R represents the sum of row elements and is defined as 15 x 1 vector and C represents the sum of column elements and is defined as 1 x 15 vectors. $R_i$ summarises the direct and indirect effects of barrier i have on other barriers, whereas Cj summarises the direct and indirect effects of barrier j received from other barriers.

In ***step 8,*** after getting the $R_i$ and $C_j$, cause and effect parameters be computed as ($R_i + C_j$) and ($R_i - C_j$), respectively. Table 7.6 showed the value of R, C, R + C, and R – C with the identification of cause and effect.

**Table 7.6:** Cause/effect parameters for barriers of competitive positioning implementation

| Barriers | Ri | Cj | Ri + Cj | Ri - Cj | Cause/effect |
|---|---|---|---|---|---|
| **B1** | 1.361 | 0.272 | **1.633** | 1.089 | **cause** |
| **B2** | 0.743 | 0.085 | **0.829** | 0.658 | **cause** |
| **B3** | 0.915 | 0.299 | **1.213** | 0.616 | **cause** |
| **B4** | 1.102 | 0.741 | **1.843** | 0.362 | **cause** |
| **B5** | 0.125 | 1.558 | **1.683** | **-1.433** | effect |
| **B6** | 0.719 | 0.654 | **1.374** | 0.065 | **cause** |
| **B7** | 0.000 | 1.282 | **1.283** | **-1.282** | effect |
| **B8** | 1.810 | 0.256 | **2.066** | 1.554 | **cause** |
| **B9** | 0.085 | 0.962 | **1.047** | **-0.876** | effect |
| **B10** | 0.387 | 1.151 | **1.538** | **-0.763** | effect |
| **B11** | 0.248 | 1.240 | **1.488** | **-0.993** | effect |
| **B12** | 1.192 | 0.290 | **1.482** | 0.901 | **cause** |
| **B13** | 0.965 | 0.456 | **1.420** | 0.509 | **cause** |
| **B14** | 0.311 | 0.454 | **0.765** | **-0.142** | effect |
| **B15** | 0.338 | 0.720 | **1.058** | **-0.381** | effect |
| **B16** | 1.228 | 0.200 | **1.428** | 1.027 | **cause** |
| **B17** | 0.100 | 1.011 | **1.111** | **-0.911** | effect |

In the end, the causal diagram was developed with the help of (R + C) and (R – C) values. There is a large number of barriers to relation. Therefore, the selection of potential relations is essential and neglects the least effective relation. The threshold value can overcome this problem. For matrix T, the mean is 0.040 and the standard deviation 0.050. The threshold value can be calculated by adding the Mean of elements of matrix T and standard deviation (mean ($\mu$) + standard deviation ($\sigma$) = 0.090). In this

study, the obtained threshold is responsible for many relations that are tough to plot. Rajesh and Ravi (2015) used the 1.5 times of standard deviation in case of large relations. To overcome this problem and find potential relations, the threshold value was set by adding 1.5 times of standard deviation with the mean. New threshold value is ($\mu + 1.5 \times \sigma = 0.115$). This new threshold is used to plot the relationship, but it could not neglect the original threshold (0.090) relations between barriers. Further, in figure 7.1, the relations meeting or exceeding the threshold value (0.115) are underlined in the matrix T and then plot the relationship accordingly.

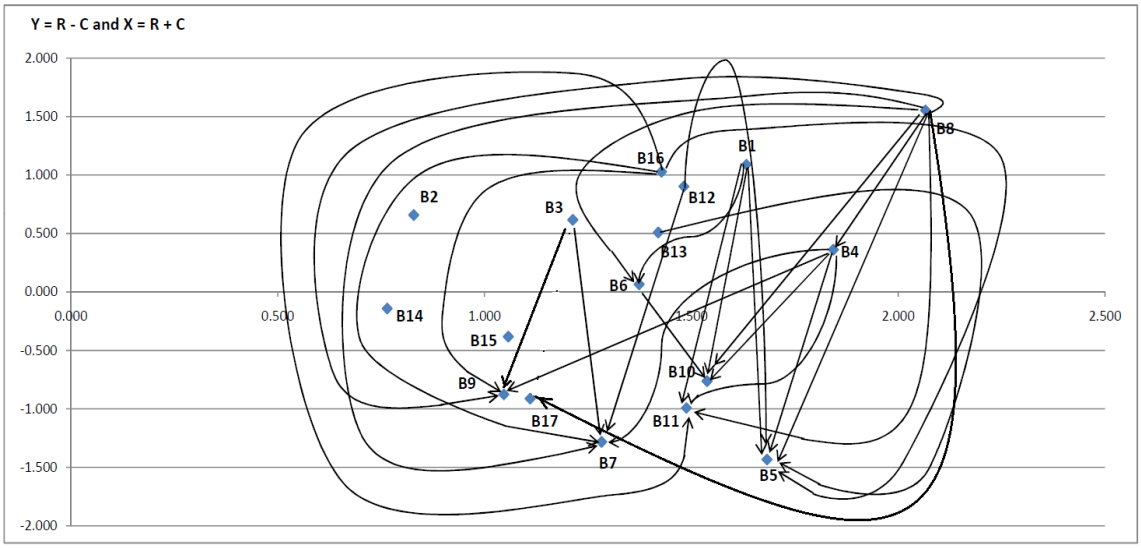


**Figure 7.1**: Digraph showing relations among barriers of CPS implementation

### 7.3 Results and discussion

In this section, the results were discussed based on prioritized barriers, checked the consistency with previous research, and then discussed the net cause and effect relations. At the end of this section, the correlation between barriers has been discussed. The barriers have been prioritized as per importance based on $R_i+C_j \; \forall \; i=j$ values. The prioritized value is as follows, Lack of management commitment and support (B8) > Lack of Education and Training to the Employee (B4) > Lack of Responsiveness (B5) > Unclear Organizational Objective (B1) > Lack of Collaboration among Supply Chain

Partners (B10) > Unwillingness to Share Information among Supply Chain Partners (B11) > Lack of Communication (B12) > Lack of Financial Resources (B16) > Lack of New Technology (B13) > Lack of Continuous Improvement Culture (B6) > Poor In-store Operational Performance (B7) > Lack of Employee Engagement (B3) > High Cost Associated with new Strategy (B17) > Lack of Demand Chain Practice (B15) > Lack of Corporate Social Responsibility (B9) > Lack of Understanding of Competitive Positioning Benefits (B2) > Lack of Technical Expertise (B14). In the priority list, the top ten barriers (B8 to B6) are from intangible resources and from dynamic capabilities except for B16. That shows that in strategy implementation, intangible resources and dynamic capabilities play a major role. To implement any strategy or adopt any technology, the availability of financial resources plays a major role. This result supports the previous study (Xia et al., 2015). Further, the result shows that the basic capabilities (skills) have less importance in strategy implementation.

Having the *management commitment and support* and *education and employee training* is the dynamic capability which is the most prominent factors not surprising. The result supports Bai and Sarkis (2013) suggestion by which top management support is the most important factor for any strategy implementation. Responsiveness is the ability to respond to customer requirements timely. Barnes and Lea-Greenwood (2010) argued that a fast fashion environment required being fully responsive. Iberahim et al. (2016) stated that responsiveness is the primary source of great service quality and depends on advanced technology. The relation between new technology and responsiveness in figure 7.1 supports Iberahim et al. (2016) argument. Holsapple and Joshi (2001) argued that if the organizational objective is not clear, it can be detrimental for organizational strategy implementation and the finding of the research study also supports this argument. Collaboration among supply chain partners can be potentially

responsible for the shelf replenishment, although this cannot perceive by the customer directly most critical strategic part of apparel retailing. All top barriers, those discussed above, support the previous findings.

The cause (driver) barriers obtained from the table 7.6 based on positive ($R_i$ - $C_j$) $\forall$ i=j values and sorted as, B8>B1>B16>B12>B2>B3>B13>B4>B6. In the causal group, the influential factor ($R_i$) is greater than influenced factor ($C_j$). Thus, lack of management commitment and support (B8) is the most important barrier with the highest ($R_i$ - $C_j$) values. From figure 7.1, it is depicted that B8 initiates the effect of B4, B5, B6, B7, B9, B10, and B11. The results exemplify the management commitment and support is the most important factor during the implementation of CPS. After B8, the next potential barrier is Unclear Organisation objectives (B1), followed by B16, B12, B2, B3, B13, B4, and B6. The causal barriers in the way of CPS implementation should be eradicated first. The reason behind eradication first is that these barriers play a significant role and initiate other barriers.

The effect (dependent) barriers obtained from table 7.6 based on negative ($R_i$ - $C_j$) $\forall$ i=j values and sorted as, B14>B15>B10>B9>B17>B11>B7>B5. These barriers may be the last one to eradicate but not necessarily less important since many causal barriers can point to one effect barrier. For example, lack of responsiveness (B5) is the effect group of the barrier for B1, B4, B8, B12, B13, and B16, as seen in figure 7.1. These barriers can eradicate in later stages of CPS implementation.

Correlation between barriers plays a major role in understanding the strategic importance of barriers. To decide the correlations based on a threshold value (= 0.115), cause and effect barriers are considered. In this order, the first barrier B8 demonstrates the highest correlation with other barriers like B4, B5, B6, B7, B9, B10, B11, and B17.

Management commitment and support continually control their resources and actions towards strategy implementation. Bai and Sarkis (2013) argued that management commitment and support are the most important barriers to implementing any strategy. The next barrier is B4, which has the highest correlation with other B5, B7, B9, B10, and B11. Lack of education and employee training is a crucial barrier in implementing strategy because it directly influences employee performance and corporate social responsibility practice (Edinger-Schons et al., 2019). The next barrier is B1, which demonstrates the correlation with other B5, B6, B10, and B11. It is essential to have a clear objective (Seaman, 2018). The next barrier is B16, which demonstrates the correlation with other B5, B7, B9, and B11.

Further, the financial resource is essential for any strategy implementation or new technology adoption. The result shows that lack of financial resources (B16) is the cause for lack of corporate social responsibility (B9), which supports Hasan and Habib (2017) argument. Further, B12 that demonstrates the correlation with other barriers like B5 and B7. The result shows that lack of communication directly impacts lack of responsiveness and lack of poor in-store operational performance. The next barrier is B3 that demonstrates the correlation with other barriers like B7 and B9. The result shows that the lack of employee engagement directly impacts the lack of in-store operational performance and corporate social responsibility. The next barrier is B13 that demonstrates the correlation with other barriers like B5 and B11. For B11, the result supports the Dominguez et al. (2018) argument as the information sharing among supply chain partners depends on the retailer's operational factors. In the end, barrier B6 shows the correlation with Lack of collaboration among supply chain partners (B10). By contrast, B2 is the least correlated because the retailer shows less concern about competitive positioning benefits.

### 7.4 Sensitivity analysis

Sensitivity analysis is the process of testing the robustness of the obtained result (Rajesh and Ravi, 2015). The initial calculation has been performed by assigning equal weight (using equation 3.3) to all experts. The obtained result can suffer from biases due to the different levels of experience and expertise of experts. One expert is assigned with a higher weight to overcome this problem than the other three in the first scenario and uses equation 3.4 at equation 3.3. Therefore, four scenarios were generated by assigning a higher weight to one expert in each scenario. Table 7.7 shows the expert's weight for each scenario.

**Table 7.7**: Weights assigned to experts during sensitivity analysis

| | **Expert 1** | **Expert 2** | **Expert 3** | **Expert 4** |
|---|---|---|---|---|
| **Scenario 1** | **0.4** | 0.2 | 0.2 | 0.2 |
| **Scenario 2** | 0.2 | **0.4** | 0.2 | 0.2 |
| **Scenario 3** | 0.2 | 0.2 | **0.4** | 0.2 |
| **Scenario 4** | 0.2 | 0.2 | 0.2 | **0.4** |

Now, the ranking of barriers for each scenario is shown in figure 7.2. The pattern of all the barriers is similar with a slight deviation which shows that the result is robust.

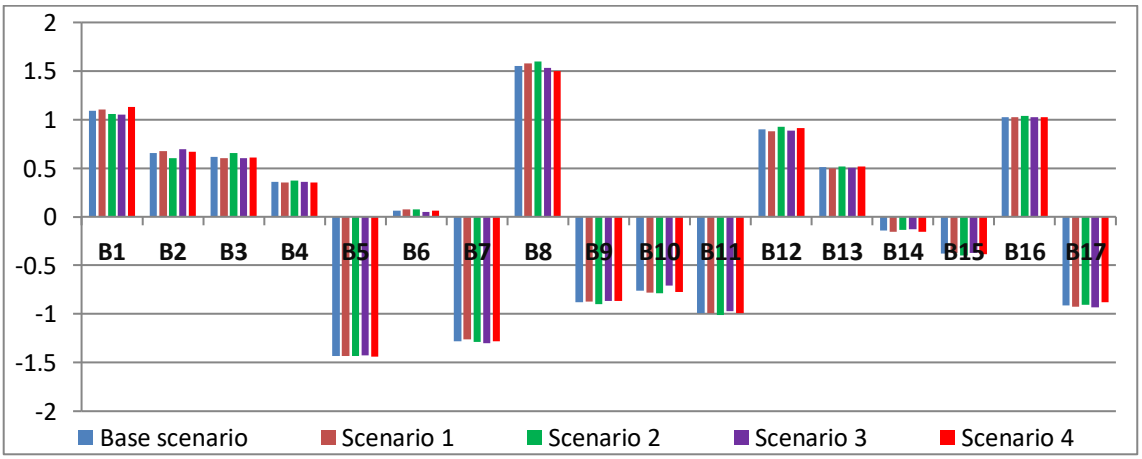


**Figure 7.2**: Sensitivity analysis

### *7.5 Theoretical implication*

Based on the above discussions, the following theoretical implications are obtained. (1) this study identifies the barriers of poisoning strategy implementation and classifies them in resource-based-view and dynamic capabilities. (2) these barriers are divided into two groups: cause and effect. This helps managers, decision-makers, and researchers to understand the potential barriers and eradicate them to implement the positioning strategies. Finally, (3) the finding shows that for positioning strategy implementation, the most important barrier is the lack of management commitment and support that should be eradicated first. Identifying barriers and classification in RBV and dynamic capabilities for retail stores is one of the first studies in the Indian context.

### *7.6 Managerial implications*

The results of this study can derive some managerial-level implications. Managers should focus on the causal (driver) barriers because it influences the effect (dependent) barriers. This research is highly noteworthy for the apparel retailers interested in implementing the strategy to position them in the competitive market and eradicate the main barriers with the help of a systematic approach. This work classified the barriers for CPS implementation and explored the basic nature of barriers. With the help of this result, managers can predict their weak field in successfully implementing the strategy. This research will help managers and decision-makers utilize their resources effectively and save their costs and fresh materials.

### 7.7 Conclusion and future scope

CPS is one of the most important strategies for an apparel retail firm to achieve a position in customers' minds over their competitors. This research attempts to address and understand the CPS implementation difficulties due to various significant barriers. In this work, an effort is made to evaluate barriers to CPS implementation in retail

apparel firms. A total of seventeen barriers related to CPS implementation are listed through literature and validated through experts' opinions. Further, these barriers are categorized into tangible resources, intangible resources, capabilities, and dynamic capabilities.

The Grey-DEMATEL method is used to analyze the barriers to distinguish their cause and effect relations. This method provides better support to decision-makers with less information (Tseng, 2009). The result shows that the barriers B1, B2, B3, B4, B6, B8, B12, B13, and B16 belong to the cause group and need to be focused first to eradicate them to achieve the desired objective. The remaining barriers B5, B7, B9, B10, B11, B14, B15, and B17 belong to the effect group and need to be eradicating later on CPS implementation in apparel retailing firms. Cause group barriers have a direct impact on the strategy implementation process and show high priority. Therefore, it is essential to directly focus on influencing (cause group) barriers to influenced (effect group) barriers. This work is validated with experts' feedback and consistent with the literature. Sensitivity analysis has been conducted to get an accurate result and reduce the biases in this research. This research work seeks to make several unique contributions, as given below.

- The present work identifies the seventeen barriers and categorized in RBT and dynamic capability for CPS implementation in apparel retailing firms. The listed barriers should be eradicated to implement the CPS successfully.
- The grey-DEMATEL based model analyses the hurdles in the way of CPS implementation. It helps to understand the causal relationships between the barriers and helps to know the strength of relationships between them under an indecisive environment.

- This work presented a benchmarking framework focusing on CPS implementation that helps managers, policymakers, and academicians to prioritize barriers to be eradicated to implement CPS successfully.