Literature review of integration and opportunity research

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Abstract This paper is a literature study to determine the limitations of various integration study that have been carried out by previous researchers. In previous studies, various definitions of integration were found, each researcher defined integration with each version. Based on the limitations found in various previous studies, it can be seen that various integration studies can be carried out in the future to complement previous studies.

1. Introduction

Integration is a general term that is often heard even in almost every conversation related to management is always heard words of integration. The importance of integration is written by many researchers. The statement of Johnston et al, increases customer satisfaction depending on how well the associated partners integrate [1]. (Céspedes 1996, Christopher 1996, Tjosvold 1988) states that increasing integration between various functional areas of a company is needed to provide satisfactory customer service. Several studies have found that integration can affect performance [2][3][4], Shopiro (1997), Crittenden (1992), Narasimban and Kim (2002), Swing and Song (2007) [5][6][7][8].

According to Lorsch & Lawrence (1967) division of labor and integration is an important function for every company to develop [9]. In corporate organizations, marketing and operations are always grouped into separate departments because they have different responsibilities. However, the functions that have been separated must remain a unity to achieve company goals. The separate function is an integrated unit in carrying out its activities so that customer satisfaction and performance improvement can be achieved.
The study conducted by Droge et al. (2004) and Allred et al. (2011) provide results that show integration in different functions within companies allows companies to increase productivity, customer satisfaction, and financial performance [10][11]. Characteristics that show an integration successfully carried out can be seen from the increasing performance of Griffin (1992), while Ellinger et al (2000), argues that Performance cannot be improved without integration in the organization[12][13]. Paiva et al (2010), examined the integration of two departments namely manufacturing and marketing and found that companies achieved better performance when manufacturing and marketing worked together [14].

Integration is very useful for the company, especially in improving the performance of the company. Research on integration has been widely carried out, in each of these studies found various limitations. This paper is a literature study to explore the limitations of research that has been carried out by several integration studies. This limitation is a research opportunity that can be done by researchers who are interested in conducting research to fill the limitations of previous research.

2. Literature Review

Lorsch (1965) defines integration as a process of mutual business between different subsystems in the process of implementing corporate tasks [15]. Lawrence, P.R. and Lorsch, J.W., (1967). Lorsch, J.W., (1965) integration is collaboration that shows that teamwork, sharing of resources, and shared goals between departments consist of effective integration [9][15]. Gupta, A.K., Raj, S.P. and Wilemon, D., (1985), integration as a combination of interaction and collaboration [16]. Rinehart at al (1989), interdepartmental integration as an interaction or communication activity, shows that inter-departmental meetings that are often carried out will provide effective integration [17]. Ettlie and Stoll (1990), integration is coordination and collaboration.

Souder and Sherman (1993) define integration as a state of high level values, shared goals and collaborative behavior. Griffin, A. and Hauser (1992), Murphy & Poist (1996), Integration is a relationship between departments where the functions involved experience a high level of satisfaction[12].
Kahn & Mentzer (1996), integration is a process of interaction between departments and interdepartmental collaboration that brings the department together into a cohesive organization or joint work communication, interaction and collaboration [18]. Ayers, Dahlstrom, and Skinner (1997), The degree to which people interact in the process of developing a new product is called integration[19]. Kahn and Mentzer (1998) stated that integration is interaction, collaboration and determination of common goals [20] Ellinger, Daugherty, and Keller (2000), interdepartmental integration consists of three dimensions: collaboration (informal information sharing behavior), consultation and information exchange (formal interaction and structured)[13] Stank et al. (2001), integration is the ability to connect work done internally or coordination into a smooth process to support customer needs [21].

Verma et al (2001), states that integration is cooperation [22]. Hausman et al. (2002), integration is the ability of marketing and manufacturing functions to work together harmoniously [23]. O'Leary-Kelly & Flores (2002), to what extent separate parties work together in organizations to achieve mutually acceptable results [24]. Xie, Song, and Stringfellow (2003), integration includes three dimensions, namely, the quality of information across functions, harmony across cross-functional relationships, and levels of cross-functional engagement [25]. Pagell (2004), defining Integration is a process of interaction and collaboration in which manufacturing, purchasing and logistics work together cooperatively to achieve mutually acceptable results for the organization [26]. Van Hoek & Mitchell (2006), Integration is an agreement in setting common goals and objectives [27].

Integration is the extent to which the activities carried out by two functions mutually support each other Vaarela (2007), the concept of organizational integration is defined as the extent to which different and interdependent organizational components constitute a complete unity [28]. Chen et al. (2007) states that integration is interaction and collaboration [29]. Swink and Song (2007) stated that integration is communication, coordination, collaboration and cooperation between Troy, Irunyawipada, and Paswan (2008), cross-functional integration is facilitating communication between different functions [8].
According to (Zhao et al., 2011), integration is the extent to which companies can compile organizational practices, procedures, and behavior into collaborative processes, synchronization and management to meet customer needs [30]. Basnet (2012), integration is effective coordination, communication and relationships and work together for the benefit of the company [31]. Swink & Schoenherr (2015), Alignment of interdependencies between functions through interaction, information sharing, and collaboration, or how to conduct harmonious interaction, coordination and collaboration [32]. In future research for integration research, researchers can use various definitions of integration from research that has been done or create their own definitions based on previous research with a more comprehensive scope of integration.

3. Research Limitations and Opportunities

Several integration studies have been collected over the last five years starting from Paiva (2011) research, which examined the relationship of profit growth with the integration of manufacturing with other departments on improving factory performance, from this research can be known the limitations of the research namely [33]; Research data comes only from the opinion of the manufacturing department, so that the same research can be carried out, however, the data used for research can be taken from other departments so that the research will be more comprehensive. Based on the literature or research found in each study various limitations of the study were found, limitations of research or gaps are opportunities, for researchers in future research. To facilitate understanding of previous research, it is arranged in Table 1.

Table 1 Conclusion and Limitation Previous Research

| Author and year | Research variable | Conclusion and Limitation research |
|-----------------|-------------------|------------------------------------|
| Paiva Ely Growth and Profit | **Growth and Profit Integration** of manufacturing with suppliers, R & D, marketing, NPD, Coordination, Problem solving | **Conclusion:** Manufacturing integration with other departments improves factory performance **Limitation research:** Data only from the manufacturing side should be from other departments as well. |
| Authors                           | Integration Type                                      | Conclusion                                                                                       | Limitation                                                                 |
|----------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Zhao Xiande, Huo, Baofeng, Selen | Customer integration, Supplier Integration           | **Conclusion**: Relationship commitment to customers has a positive effect on the integration of customer relationship commitment to suppliers has a positive effect on supplier integration. **Internal integration** has a positive influence on customer integration and supplier integration. **Limitation**: Only measuring the effect of external integration on internal integration does not measure its impact on performance. Research is only done in China and needs to be studied for other countries. Other variables need to be examined such as trust etc. |
| Willem, Yan, Yeung Jeff Hoi      | Supplier Integration, Internal integration            |                                                                                                 |                                                                             |
| Inda Sukati (2011)               | Supply chain orientation                              | **Conclusion**: Organizations need an integrated supply chain. **Limitation**: Only discuss the relationship between internal and external integration of the company without discussing the continuation of the relationship.                                                                 |
| Nuša Fain, Mihael Kline, Jožef  | NPD Success and Integration Problems                  | **Conclusion**: Marketing and R & D integration is significant for environmental uncertainty and organizational strategy. Organizational factors and individual factors do not significantly affect the integration of marketing and R & D because they are negatively correlated. **Limitation**: Very few research samples are only two companies. |
| Duhovnik (2011)                  | NPD Success and Integration Problems                  |                                                                                                                                                             |                                                                             |
| Author(s) | Interaction | Conclusion | Limitation |
|-----------|-------------|------------|-----------|
| Topolsek Darja, (2011) | Interaction Between Supply Chain and Marketing | Conclusion: the better the level of understanding of tasks from each logistics sector will affect the internal integration of both. | Limitation: Data is collected only from a logistical perspective, preferably also from a marketing perspective. |
| Lin Arthur J, Hsu Chien-Lung dan Tsai Tsui-Hsu (2011) | Integration of Marketing and National Image | Conclusion: Experiential marketing and integrated marketing have a positive influence on marketing performance. National image does not have a direct positive influence on marketing performance. | Limitation: The construct variable is more variable in the future, such as marketing relationships, marketing mix, and the influence between construct variables can be analyzed from different angles. |
| Basnet Chuda dan Wisner Joel, (2012) | Internal Intervention at top mgmt level | Conclusion: integration occurs when the existing department is jointly responsible for achieving company goals. Integration constructs have three dimensions: coordination, communication, and affective relationships. | Limitation: Study of other industries |
From some studies in the table, there are various limitations of research found, namely; Paiva (2011) examines integration only from a manufacturing point of view [33], Zhao et al (2011), his research only measures the effect of external integration on internal integration, does not measure its effect on company performance [30], Sukati (2011), his research only discusses the relationship of internal integration and external, not discussing the continuation of the integration relationship[34], Topolsek (2011), the data collected is the result of the results from the logistics department, even though the integration with other departments is measured. Lin et al (2011) research, measuring three independent variables on marketing integration, the limitations of independent variables are less variable[35]. Basnet (2012), examined only three dimensions of integration, namely effective communication, coordination and relationships[31]. William (2013), said integration research but did not examine the driving and inhibiting factors of integration and
its influence on performance[36]. Pujangkoro Research (2018), examines the integration between external integration and internal integration, but the study population is only a real estate company[37].

4. Integration Research Based on Previous Research

Based on the research gap found in previous studies, various studies can be done in other ways:

1. Future research examines the integration of various departments and their impact on company performance or marketing performance. It needs to be examined whether the element of integration has an impact on performance both partially and in an integrated manner. So for future research integration that is examined in cross-department or cross-functional is the impact of integration of each department.

2. Other research that can be done is to examine the driving and inhibiting factors of integration in the process of integration.

3. Integration research needs to be done in various countries to compare the impact of integration on companies in various countries.

4. Research to determine a more comprehensive definition of integration can be done by comparing various definitions and making a broader and more comprehensive definition of integration.

5. Conclusion

1. Integration is an activity that is important for companies to increase performance

2. Integration research can be done with the development of a broader definition of integration and research.

3. Future research is expected to be carried out in various types of companies and from various countries.
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