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## ENHANCING DISTRIBUTION NETWORK PERFORMANCE: A QUANTITATIVE APPROACH TO DEVELOPING A DISTRIBUTION STRATEGY MODEL

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### ABSTRACT

**Purpose-** This paper examines distribution network and distribution strategy choice problem in the presence of uncertain demands. The authors discuss the implications of cost and capacity-utilisation in locating centralised or decentralised distribution centres, which are inherently associated with different distribution strategies.

**Methodology-** A case study approach is adopted, and several scenarios for distribution network and distribution strategy are designed, thus enabling us to perform in-depth analysis using mathematical modelling and simulation techniques. Based on the data from a real case study company, herein referred to as 'Corporation A', five typical scenarios are designed to represent different combinations of distribution networks and distribution strategies. The five scenarios are mathematically simulated to evaluate their costs and capacity-utilisations. A distribution strategy model (DSM) is then developed accordingly to support decision making for enhancing distribution performance.

**Findings-** The results show the potential of the developed distribution strategy model (DSM) in supporting consistent maximisation of distribution operations despite uncertainties in demands in a dynamic market environment, and hence lowering inventory and transportation costs. Whilst findings show the importance of using numerical approach in obtaining an optimum location for distribution centres, the study eventually revealed the necessary need to inject adequate level of informed local knowledge based on experience into decision making. Attributes such as costs, labour productivity, policy government, proximity to markets and suppliers are crucial in making the informed decision necessary for an optimum distribution facility location.

**Conclusion-** Uncertainties in demand put huge pressure on distribution-networks, with consequent significant costs and service implications. In search for solution to complex distribution problems, deploying a widened array of scenarios for scrutiny is necessary in reaching a robust and optimized solution. Given volatility in the contemporary supply chain, there are both theoretical and practical needs to actively consider, re-consider or re-design various distribution network for improved performance.

**Keywords:** Distribution network design, distribution strategy, risk-pooling, milk run shipment, quantitative approach

**JEL Codes:** L91, L99, R41

### 1. INTRODUCTION

In recent decades, the trend of demand uncertainties has put more and more pressure on distribution-networks of supply chains, with consequent significant cost and service implications, thus necessitating that firms optimise distribution performances. Inventory cost is one of the 'Key Performance Indicators' (KPI) that influences decision-making in supply chains (Beuthe and Bouffieux, 2008). Minimisation of inventory, which has cost and service implications, is achievable by high-efficient management

and operation (Slack *et al.*, 2010). Cost saving is not only generated from inventory management, but also from the development of different distribution operation networks. As a result, changes in distribution network cause variations in cost, inventory and vehicle utilisation, which as widely acknowledged (Bowersox *et al.*, 2007 ; Simchi-Levi *et al.*, 2009 ; Crandall *et al.*, 2010), are real challenges to many firms.

In this study, the implications of cost and capacity-utilisation in locating centralised or decentralised distribution centres associated with different distribution strategies are discussed and assessed using quantitative approach. With the overarching goal of improving logistics performance, it begins by examining theories of distribution network, network-problems and then an assessment of their potential impacts. Subsequently, based on 'Corporation A' case study, mathematical models for five distribution scenarios are formulation. Using the simulation approach, the models are analysed in order to assess their potential impacts on distribution performance. Finally, a distribution strategy model is developed, presenting trade-off analysis of the 5 feasible scenarios, to facilitate the improvement of distribution network performance.

## **2. LITERATURE REVIEW**

### **2.1. Research Background**

As companies are continuously striving for ways to maintain their competitive advantage and core competence in the global marketplace, cost reduction and value creation are necessities in improving supply chain performance (Hoffmann and Kumar, 2010 ; Meepetchdee and Shah, 2007 ; Christopher, 2005 ; Christopher and Towill, 2000). The main drivers of supply chain performance is divided into logistics-related drivers (facilities, inventory and transportation) and cross-functional drivers (information, sourcing, and pricing) (Chopra and Meindl, 2010). An excellent network design and re-design enhances company's simplifying of processes, reducing costs and improving service level (Boyson *et al.*, 2011). Admittedly, network design provides an effective approach to balance supply, demand and simplification of cost and service structures (Boyson *et al.*, 2011). As a result, value can be generated mainly by cost minimisation and profit maximisation in network design (Jung *et al.*, 2004 ; Cohen and Moon, 1990 ; Tsiakis *et al.*, 2001 ; Cohen and Lee, 1989 ; Gjerdrum *et al.*, 2001). It is important therefore, to examine the impacts of the different distribution networks.

### **2.2. The Impacts of Decentralised and Centralised Distribution with Risk-Pooling Application**

Decentralised systems are known to comprise of a collection of warehouses in the distribution network. As decentralised manufacturers' warehousing systems are closer to customers, there is the tendency for higher volume of inventory in each of the manufacturers' warehouses (Chopra and Meindl, 2010). Such decentralised warehousing systems are largely operated on the basis of direct shipment and milk run. The direct shipment strategy is adopted when goods must be shipped in isolated manner directly from warehouses or factories to customers. Many companies apply long-range direct shipping resulting in cost inefficiency, since there is excessive use of less than truckload (LTL) model of transportation (Caputo *et al.*, 2005). These trends in high transportation costs are caused by extended distances and disaggregate shipments. It is economical to ship directly from plant to retailers if a shipment is full truckload (FTL) (Du *et al.*, 2007). Milk run shipment is widely recognised by CSCMP (2010), Du *et al.* (2007), Bowersox *et al.* (2007), and Caputo and Mininno (1996). In milk run application, a vehicle leaves transportation depot (TD) to suppliers with empty truckload (ETL). It picks up goods with LTL, and then it leaves the suppliers to other suppliers on its' goods consolidation journey. When goods are collected with FTL, the vehicle leaves final supplier to different customers, dropping relevant rates of designated goods. When the vehicle completes delivery of goods, it returns to TD with ETL. This offers effective approach to achieving integrated lean logistics strategy, which as reiterated by Bowersox *et al.* (2007) supports the reduction of excessive transportation cost. The capacity to reduce transportation costs through milk run shipments is largely due to consolidation which offsets the use of small lot transportation (Brar and Saini, 2011).

Manufacturers and other upstream suppliers give centralised distribution system a great deal of consideration. In an absolutely centralised inventory system, a single central warehouse fulfils all the demands of various stores (Lee and Jeong, 2009). Inventory serves to confront uncertainties in demands from a large number of customers, thus centralised systems can minimise the safety stock thereby reducing inventory holding cost (Gerchak and Gupta, 1991). For this reason the risk-pooling strategy, which is concerned with aggregation of demand, can lower the safety stock required to achieve set customer service level (Wisner *et al.*, 2012). To assess the extent of risk-pooling effect, the coefficient of variation (CoV) is used to measure demand variability (Cachon and Terwiesch, 2009). The higher the CoV, the greater the benefit received from the centralised system, i.e., greater the benefit from risk-pooling (Simchi-Levi *et al.*, 2009). In addition, applying risk-pooling in a transportation network can cause reduced fleet size and number of staff, while increasing utilisation rate in vehicle movements (Hall, 2004). Fritzsche (2012) presented an inventory policy-pooling model, which supports the reduction of total costs and improvement in operational stock planning.

Therefore, applying the risk-pooling strategy can lower the inventory stock in centralised warehousing system. There two main distribution networks attributed to the centralised system, namely - 1) all shipments via DC with inventory storage and 2) shipping via DC using milk run. In the first type shipment, suppliers transfer goods to DC, and then from the DC forward shipments to each buyer's location (Chopra and Meindl, 2010). The reduction of transportation costs is based on aggregation of goods through distribution channel in FTL (Apte and Viswanathan, 2000). Each supplier requires a large shipment to the DC that contains products for all sites (buyers) served by the DC, thus it can achieve economies of scale in transportation to a point near to the final destination (Chopra and Meindl, 2010). In the second shipment approach, each supplier's goods are shipped to DC for consolidation, and then delivery to final customers is made using the milk run system. This type of system, shipping via DC using milk run, chooses from two different shipping methods, namely FTL and LTL (Carinic, 1999). The FTL capacity can result in lowest cost. In LTL shipping, only a fraction of the entire truck capacity is hired and the cost is proportional to the transported amount with specific fees depending on weight ranges and the destination zone (Caputo *et al.*, 2006).

### **2.3. The Problem of Network Cost**

A profound aspect of distribution network is the assessment of the relationship between total distance and transportation costs in order to evaluate network costs. The achievement of minimum total cost is driven by cost-to-cost trade-offs, which is increasingly dependent on total inventory and transportation costs (Bowersox *et al.*, 2007). While transportation cost rises along with increasing distances travelled by a vehicle, increase in weight of loads benefits from economies of scale and reduction of cost per pound (Bowersox *et al.*, 2007). On the other hand, as the number of warehouses and other logistical facilities increases, transportation cost reduces, though inventory and facilities costs may increase (Coyle *et al.*, 2009). It is pertinent however to observe that there is the tendency to accumulate high aggregated transportation costs with excess number of facilities. Therefore, the minimal transportation cost is achievable between two aspects of distance travelled and number of facilities (Chopra and Meindl, 2010). The inventory costs aspect are mainly categorised into carrying cost, order and setup cost and stock-out costs (Swink *et al.*, 2011). Carrying costs encompasses the expenses in a warehouse, costs of special storage requirements and opportunity cost of the investments, damage, theft, insurance and taxes (Silver *et al.*, 1998). Additionally, inventory costs become higher by increasing the number of facilities.

### **2.4. Vehicle Routing Problem**

Another distribution network challenge is vehicle routing, which is influenced by the relationship between distance, route and vehicle capacity. Geographic information system (GIS) as a computer-based tool is applied for mapping and analysing spatial data which provides effective method for network analysis and route planning (WestminsterCollege, 2012). GIS not only achieves cost savings and increased efficiency, but also supports better decision-making, improved communication, better geographic recordkeeping and management (Esri, 2012). Truckload capacity is a critical parameter for calculating route distance, thus vehicle routing problem (VRP) identification and analysis, leading to resolution of the problem between truckload capacity and distance for the purpose of improving efficiency and meeting customers' requirements (Federgruen and Simchi-Levi, 1995). For the sake of vehicle travelled distance based on truckload capacity, capacitated vehicle routing problem (CVRP) provides effective algorithm and method for assessing the interaction between capacity and distribution route (Augerat *et al.*, 1998). As further explained, Augerat *et al.* (1998) held that CVRP presents the challenge of finding routes for different vehicles, with minimum total cost, and each customer belonging to exactly one route, each route containing designated depots and each delivery to customers not exceeding the given vehicle capacity. Furthermore, freight transport creates a major logistical challenge, concerning acquisition of backloads and the empty runs for returning vehicles and also geographical imbalances in traffic flow, short haul lengths, scheduling constraints and the incompatibility of vehicles and loads (McKinnon and Ge, 2006).

### **2.5. Network Location Problem**

A good warehousing site selection which offers strategic advantages is confronted with four main issues for consideration, namely, physical infrastructure, proximity to suppliers and customers, political and tax issues and international trade conditions (Thai and Grewal, 2005 ; Shang *et al.*, 2009). Thai and Grewal (2005) developed a conceptual framework for site selection. General geographical area identification, alternative sites and gateways seaports/airports identification, and specific site selection are the main options of site location. Considering geographical area identification, the Centre of Gravity (CoG) principle is defined as an imaginary point where all the weights of an object can be considered to be concentrated (Thai and Grewal, 2005).

Although a considerable number of studies have been conducted focusing on the impacts and decisions on individual components such as transportation, inventory, location, routing and scheduling, truckload capacity, rather less attention has

been paid to the overall impacts of logistics network and distribution strategy on performance indicators such as storage cost, inventory cost, transportation cost, travel distance, inventory utilisation and vehicle utilisation in the presence of demand uncertainty, which will be examined in this paper. For the case study company examined in this paper, the main problem was that of high logistics costs in rendering services.

### 3. DATA AND METHODOLOGY

#### 3.1. Problem Formulation

The distribution network and distribution strategy choice problem in our context mainly concerns selecting the location of central distribution centre (CDC) and the inventory management and transportation arrangement between factories and CDC, and between CDC and regional distribution centres (RDCs). We adopt a case study approach and design several scenarios for distribution network and distribution strategy options, which enable us to perform in-depth analysis through mathematical modelling and simulation techniques.

Case study research strategy enables the investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence (Robson, 2002). Researchers gain enhanced understanding of the context and processes being investigated in a specific case study (Eisenhardt and Graebner, 2007). To examine distribution network problems and assess their potential impacts, this paper takes the quantitative approach, deploying case-study-supplied numerical data, which were analysed using Excel facilitated simulation. Simulation, which provides techniques to imitate the operation of a real-world process or system over time (Banks, 1998), provided the needed approach to reaching possible solutions in this study. As widely acknowledged, spreadsheet simulations are implemented by devising a simulation table that produces a method for tracking a system's state over time which enables the generation of corresponding mathematical models for possible solutions (Matko *et al.*, 1992 ; Valten, 2009); Bank., 2010).

#### 3.2. The Scope and Process

This section shows the scope of the simulation and illustrates the application of Input-and-Output system in simulation using Figure-1 and Table-1. Then, the algorithms for centralised and decentralised inventory cost and utilisation are developed. Subsequently, simulation of warehouse site location is carried out. Finally, algorithms for transportation cost and vehicle utilisation in 5 scenarios are developed.

Fig. 1: Flow of Simulation and Assessment of 5 Feasible Scenarios

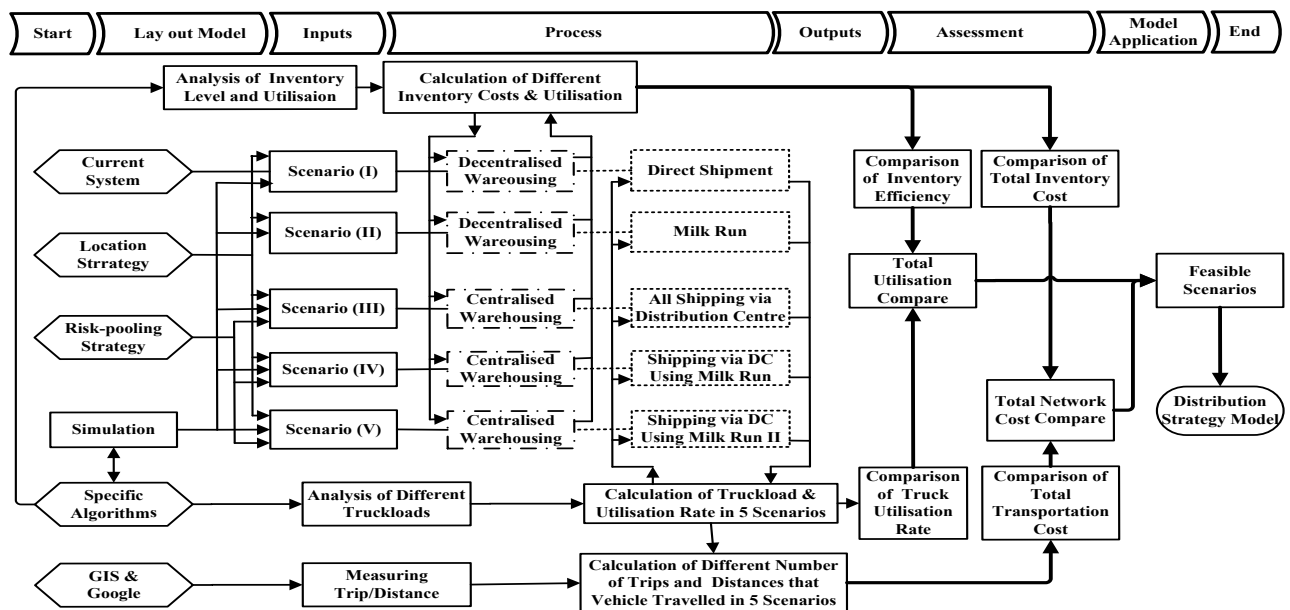


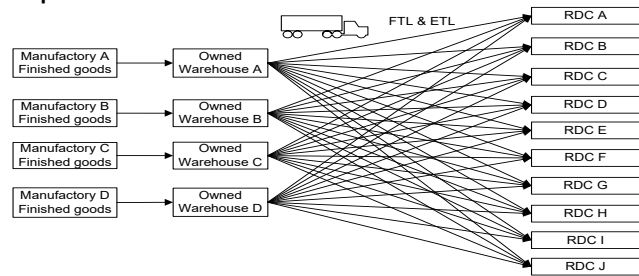


Fig. 1 shows the simulation approach taken in developing the 5 distribution scenarios. The scenarios comprise of two categories: decentralised- scenario (I) and (II); and centralised system-scenario (III), (IV), and (V). The study commenced with the development of mathematical models (see Appendix-A) of the 5 scenarios which consist of parameters of inventory and transportation. In the process, the primary data were inputted in the algorithms using spreadsheet and GIS tools for distance measurement and then the simulation process was run. Subsequently, each of the 5 scenarios was simulated using the same process and results were collected on completion. For the decentralised scenarios (I) and (II), the inventory simulation algorithm and data were the same; however, both scenarios differ in transportation variables. Concerning decision for appropriate new site location in centralised distribution system, computation based on CDC coordinates for scenarios (III), (IV), and (V) was carried out. Given this approach, the algorithms for inventory related-operations were thus different in scenarios (III), (IV), and (V). While the simulation process for inventory remained the same in scenarios (III), (IV), and (V), it was different for transportation, given that the different scenarios deployed different parameters. Simulation generated-data were subjected to further analysis as enabled by Excel tool so as to assess and contrast the cost and utilisation (i.e. inventory and transportation) between the five scenarios. These culminated to the development of a distribution strategy model, applicable for different attributes by trade-off analysis in order to enable decision-making to improve distribution network logistics performance.

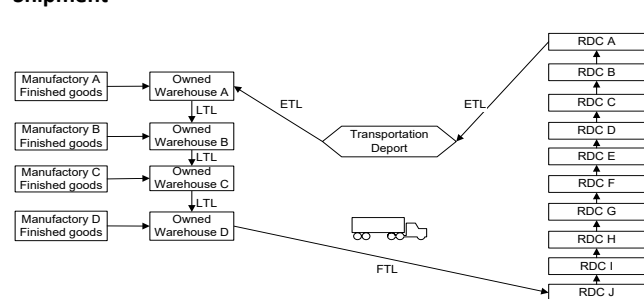
**3.3. Identification of Mathematical Model in the Five Scenarios**

Fig. (2-6) show the features of the 5 scenarios upon which simulations were run using data supplied by Corporation A, while the discussion that follows, develops algorithms of inventory, transportation costs and their utilisation.

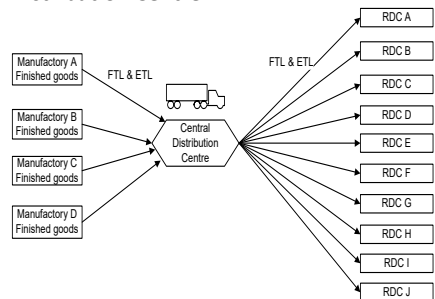
**Fig. 2: Scenario (I) Decentralised Warehouse and Direct Shipment**



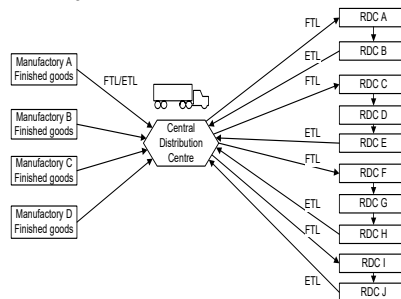
**Fig. 3: Scenario (II) Decentralised Warehouse + Milk Run Shipment**



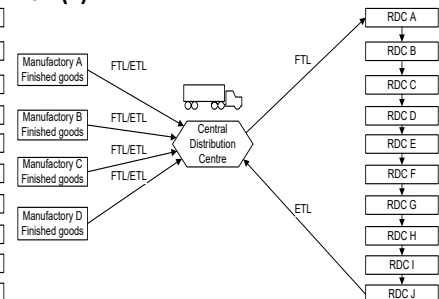
**Fig. 4: Scenario (III) Centralised Warehouse + All Shipments via Distribution Centre**



**Fig. 5: Scenario (IV) Centralised Warehouse + Shipping via DC Using Milk Run**



**Fig. 6: Scenario (V) Centralised Warehouse + Shipping via DC Using Milk Run (2)**



**Table 1: The Nomenclatures for Algorithms in 5 Scenarios**

$\sigma_D^C$	Standard deviation of monthly demand at CDC	$o, p, q, r$	Number of RDCs called by trucks in one trip [in scenario (IV) (where, $o+p+q+r=J$ )]
$L$	Replenishment lead-time: Scenario (III), (IV), and (V)		
$x_i$	Quantity of demands in each warehouse ( $i=1, 2, \dots, I$ )	$m$	Maximum truck carrying capacity
$C_i$ or $C_j$	The coordinate of Warehouse $i$ or RDC $j$	$n$	Integer number
$Z$	Service factor	$d_i^{MR}$	Distance (from factory to RDCs) in scenario (I)
$Q$	Order quantity from all RDCs $J$ (Scenario III-V)	$d_2$	Distance in scenario (II)
$K$	Fixed ordering cost (Scenario III-V)	$d_i^{3MC}$	Distance (from factory to CDC) per return-trip in scenario (III)
$H$	Inventory holding cost at warehouse/CDC	$d_j^{3CR}$	Distance (from CDC to RDCs) per return-trip in scenario (III)
$I$	Total number of warehouses/CDC	$d_i^{4MC}$	Distance (from factory to CDC) per return-trip in scenario (IV)
$J$	Total number of RDCs	$d_i^{4CR}$	Distance (from CDC to RDCs) per return-trip in scenario (IV)
$i$	The warehouse $i$ ( $i=1, 2, \dots, I$ )	$d_i^{5MC}$	Distance (from factory to CDC) per return-trip in scenario (V)
$j$	The RDC $j$ ( $j=1, 2, \dots, J$ )	$d^{5CR}$	Distance (from CDC to RDC) per return-trip in scenario (V)
$f$	Freight rate (tonne-kilometre)		

Note: The distance for are  $d_i^{3MC}$ ,  $d_i^{4MC}$ ,  $d_i^{5MC}$  the same.

Using algorithms in table 1 the five scenarios [Scenario (I) Decentralised Warehouse and Direct Shipment; Scenario (II) Decentralised Warehouse + Milk Run Shipment; Scenario (III) Centralised Warehouse + All shipments via Distribution Centre; Scenario (IV) Centralised Warehouse + Shipping via DC Using Multi-Route Milk Run; Scenario (V) Centralised Warehouse + Shipping via DC with single-route Milk] presented in Fig. 2-6 are developed and simulated.

In scenario (I), the decentralised warehouses (with total number  $I$ ) are owned and operated by the factories of Corporation A. The demand in warehouse ( $x_i$ ) for supplies of different types of products is equally split among all RDCs (with total number  $J$ ). Each factory delivers equal amount of goods to RDCs by direct shipment through  $d_i^{MR}$  kilometres.

For the scenario (II), note that the algorithms and data for inventory cost and utilisation are the same as in scenario (I), thus we hereby concentrate on developing algorithms for transportation cost and capacity utilisation. Fig. 3 displayed the milk-run distribution network. A truck with ETL travels from TD to warehouse ( $i$ ), picking up goods from each warehouse proportionally at a rate  $(\frac{x_i m}{\sum_{i=1}^I x_i})$ . Then, after the truck collects designated rates of goods across all warehouses ( $i=1, 2, \dots, I$ ), with the FTL ( $m$ ), it leaves the final warehouse  $i$ . Afterwards, the truck drops goods to ( $J$ ) RDCs at an average rate and returns to TD with ETL.

In scenario (III), algorithms to assess a distribution network type of centralised warehouse with all shipments via DC are developed. As shown in Fig.4, goods are aggregated in the CDC ( $i=1$ ), and then respectively dispatched to RDCs. The location determination of CDC is dependent on the centre of gravity model. Centralised warehouse implies the implementation of risk-pooling strategy. Goods in CDC are equally delivered to  $J$  (RDCs) by direct shipments.

Refer to the Fig. 5 (scenario IV) which shows that finished goods are aggregated in CDC/warehouse ( $i$ ) from 4 factories at the beginning of operation, and then distributed to each RDC ( $j$ ) by the multi-route milk-run network operation. The warehouse and 1st transportation segment operation is same as the scenario (III), while the 2nd transportation segment is dependent on the multi-route milk run. Total RDCs ( $J$ ) are split into 4 different routes, namely  $o$ ,  $p$ ,  $q$ , and  $r$  delivery routes.

Fig. 6 displays a type of network for scenario (V) which is the combination of scenario (II) and (III). Note that the distance of the 2nd transportation segment ( $d^{5CR}$ ), is measured by GIS.

Further details on the development of algorithms and equations in relation to inventory, freight, and vehicle utilisation for scenarios (I-V) can be found in Appendix A.

#### 4. FINDINGS AND DISCUSSIONS

##### 4.1. Results and Discussions

Given complexities, a representative one month’s operation sample data and developed related algorithms are used to analyse occurring variations and eventually discuss feasible scenarios for establishing a model for distribution strategy which will be applied in different situations to enhance logistics performance. For the distribution network understudied, Corporation A, mills are located in the south coast of Guangdong province of China, from where factories deliver goods to 10 RDCs within the province.

The annual demand volume supplied is shown in Appendix-B, lead-time (*L*) is 1 month, fixed cost (*k*) is £20,000, one month inventory holding cost per ton (*h*) is £39.9, and assumed customer service is 99%. These data, as provided, were inputted in the developed algorithms so as to assess the impacts on annual cost and utilisation of inventory and transportation. The distribution network examined by developing different simulation scenarios relies more on the location and current distribution network of Corporation A is as shown in scenario (I) (see Fig. 2).

Fig. 7: The Location of Distribution Sites

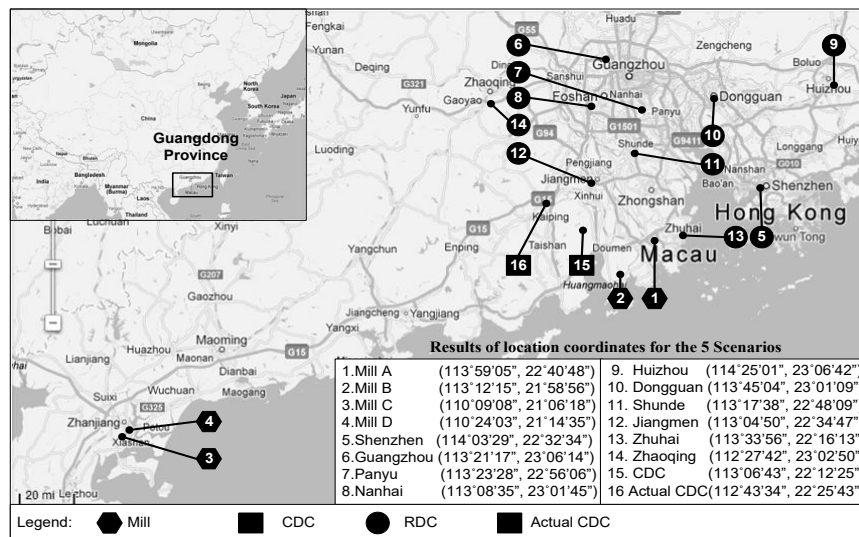


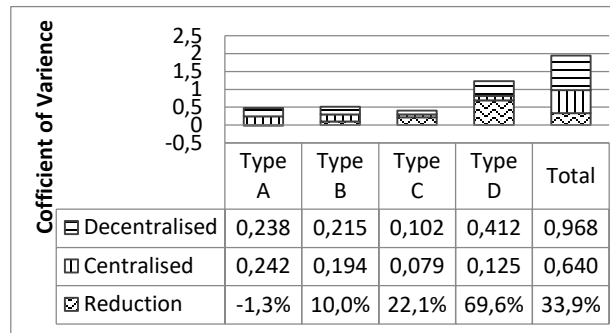
Fig. 7 displays the locations of the distribution facilities, and also the results of the location coordinates for the five simulated scenarios. Analysis showed that the resultant and optimum simulated location for centralised distribution centre (CDC)/transport depot (TD) sites is in reality in a mountainous and forest region, which makes the site inappropriate for feasible practical use. When a situation, such as this is encountered, we join authors, e.g. (Ballou, 2004 ; Thai and Grewal, 2005 ; Shang *et al.*, 2009 ; Slack *et al.*, 2010), to call for the ingestion of adequate level of subjectivity based on informed and knowledgeable decisions. For this reason, it is proposed that the CDC be located as close in proximity as possible to the Centre of Gravity (CoG), considering convenience and other business features. While making business location decisions, factors for consideration include proximity to markets and suppliers, costs, labour productivity and attitudes of government (Heizer and Render, 2001). In this context, we therefore propose that the Kaiping (approximate 112°43'34"E, 22°25'43"N) site presents both the optimum and practicable location for the CDC/TD. This is supported by three reasons; (1) proximity with the CoG determined location, (2). Greater accessibility to the highways (3). Cost saving potential.

##### 4.2 Risk-Pooling Effect

Having discussed the optimum and feasible location for the CDC, attention is hereby given to examining the consequent risk-pooling strategy. In assessing the impact of risk-pooling strategy on the warehouse/CDC, it is important to evaluate the

coefficient of variation (CoV) for products' storage costs. Thus, for four products of Corporation A, the CoVs in centralised and decentralised warehouses are computed.

**Fig. 8: Changes of Coefficient of Variance for 4 Types of Products between Decentralised and Centralised Warehouse Annually**



**Fig. 9: Changes of Storage Cost for 4 types of Goods between Decentralised and Centralised Warehouse Annually**

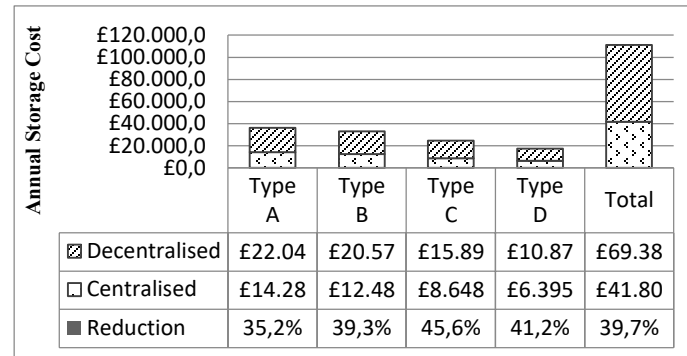
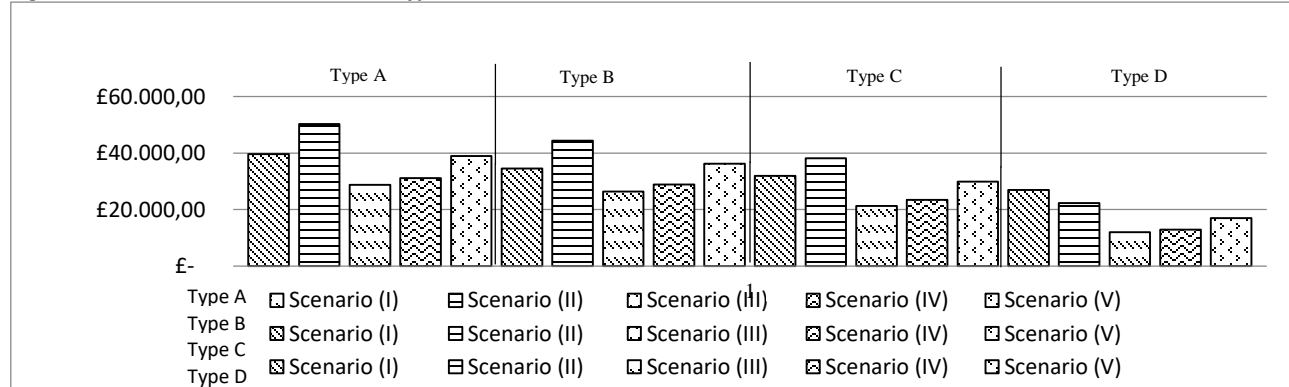
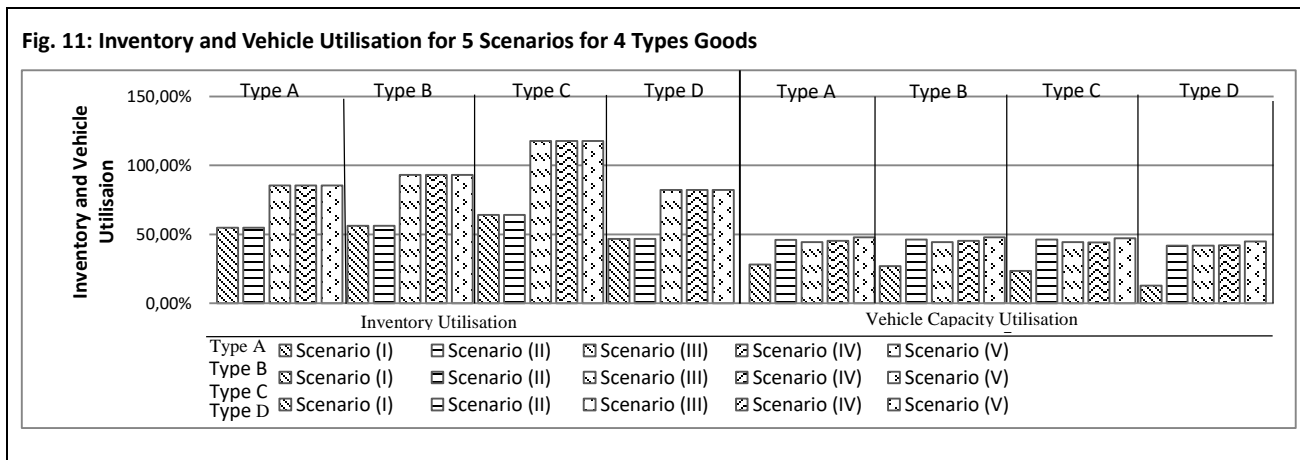


Fig. 8 shows the CoV results for the four types of products, while Fig. 9 correspondingly presents the cost variations for the products in centralised and decentralised systems. The CoV is directly influenced by variations in the volume of products requiring storage. Results reveal the trend that demands for storage is largely lower in the centralised than in the decentralised warehouse network. Thus, conforming the view in Simchi-Levi *et al.* (2009) that the higher CoV (as herein is the case for the decentralised), the greater the benefit obtained from centralised system. That means having greater benefit from risk-pooling', although this is slightly different for type A goods where the resultant -1.3% CoV puts decentralised strategy as being advantageous. The different volumes of demand for the 4 categories of goods are the cause of different total costs and utilisation in the 5 scenarios.

**Fig. 10 :Total Cost for 5 Scenarios for 4 Types Goods**



Note: Type A, B, C, and D represents different volume of demands, 8135 tons, 7751tons, 6790tons, and 3502tons respectively, (see appendix-B)



The different types of goods are fundamentally indications for different volumes of goods and not necessarily about the features of the goods. Note that, Type A has the largest volume (1st vol.), followed by type B (2nd vol.), type C (3rd vol.) and type D (4th vol.) has the least volume. In Fig.10, it is shown that using a particular scenario (distribution network) in the handling of a category of goods produces different cost implications. This scenario and cost relationship is subject to variations in the volume of category A, B, and C goods for the 5 scenarios. As indicated, the different types of goods have different volumes (tons); A (8135), B (7751), C (6790) and D (3502), which thus affect the costs level for any of the distribution network. The cost was found to be on a corresponding decrease as volume decreases for the different categories of goods, in other words, there was a general trend of the higher the volume, the higher the cost for all the different scenarios. However, the greater reduction in the volume of type D, resulted in scenario (II), see Fig. 3, being considered as a preferable option to scenario (I) for cost reduction. As a result, scenario (I) which is the current distribution network for Corporation A is of more cost benefit with higher volume of goods, whereas the scenario (II) is of cost benefit with lower volumes. For theoretical benefit, we emphasize that for a given distribution network, the variations in the volume of goods have substantial cost implications that demands closer scrutiny. On the other hand, changes in volume of goods do not only have effect on total cost, but also on inventory and vehicle utilisation, as shown in Fig 11. Of all the types of goods considered, (i.e. A, B, C and D), the type C goods (6790tons) were found to have the highest level of inventory utilisation, when compared to those of other types with higher or lower inventory volumes. This trend therefore, reveals that utilisation of inventory is at its peak when inventory is neither very higher nor very low. Additionally, vehicle capacity utilisation for the 4 types of goods in scenarios (II), (III), (IV), and (V) is approximately 45% while vehicle capacity utilisation for scenario (I), which is the current operated distribution network for Corporation A was found to be lesser. This outcome is understood in the light that the direct shipment of scenario (I) results in lower vehicle-goods consolidation, whereas using the other simulated scenarios presents the potential of achieving higher vehicle-goods consolidation. Thus, the distribution network re-engineering capacity presented by the simulation approach avails firms the opportunity to re-consider and re-design their network operations to achieve vehicle-goods aggregation, leading to higher vehicle capacity utilisation.

**4.3. Evaluation of Total Distribution Cost, Utilisation and Related Issues**

Fig. 12 shows the different performances for transportation, inventory and total cost in the 5 scenarios. On the other hand, Fig. 13 and Fig. 14 present the inventory and vehicle utilisation, and total distance respectively for the 5 scenarios. The discussions that follow consider all the features of the three figures in an integrated manner.

Fig. 12: Distribution Cost

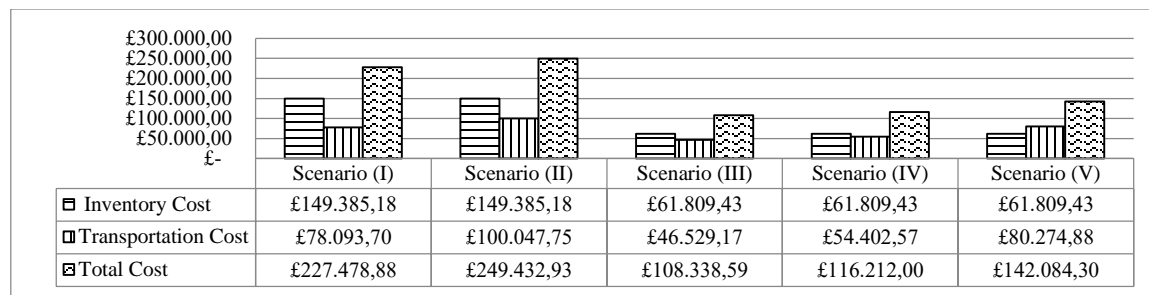


Fig. 13: Inventory Utilisation and Vehicle Utilisation

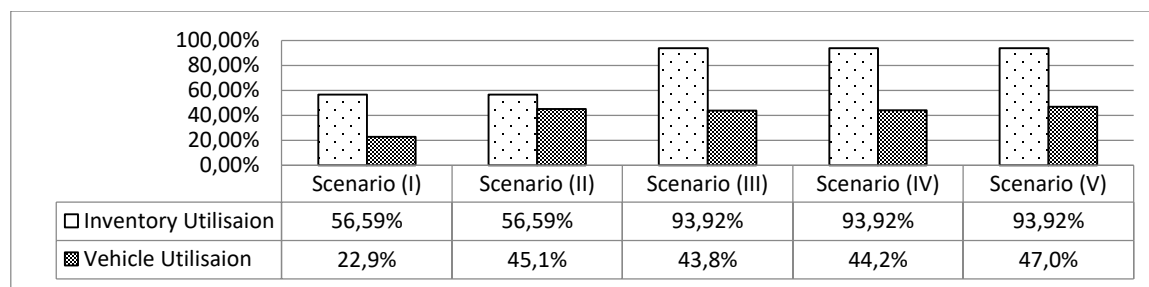
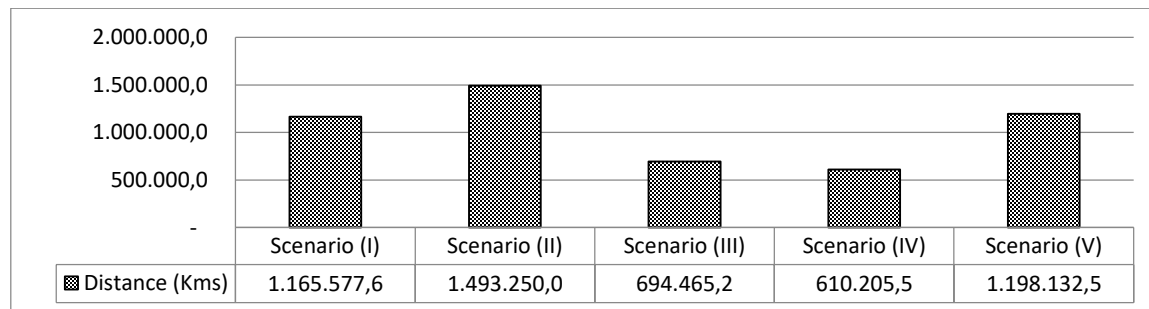


Fig. 14: Transportation Distance



Scenario (1) has the 2nd highest total costs of all the 5 scenarios. It incurs higher transportation cost (£78,093.70), due to long-range direct shipping (i.e.1,165,577.6 Km) and excessive LTL (less than truck load) model of transportation. On the other hand, it suffers from higher inventory cost (£149,385.18), because of the decentralised warehouse system. Scenario (II) shows the highest total costs. The inventory cost is same as scenario (I), £149,385.18, however, its' transportation cost is the highest (i.e. £100,047.75), given that it covers about 1,496,250Km in the delivery of goods to RDCs by milk-run shipment. On the brighter side, further analysis of scenario (II) revealed that the vehicle capacity utilisation increased from 22.9% to 45.1% of that of scenario (I). Results of Scenario (III), *centralised warehouse plus all shipment via DC*, yielded the lowest inventory and transportation costs, however it resulted in a lower vehicle capacity utilisation. All goods are aggregated in CDC across 4 factories with the application of 'risk-pooling' strategy, resulting in inventory cost reduction to £61,809.4. This reduction in inventory cost is achieved by 'consolidating products with random demands into one location', thus taking advantage of economies of scale (Eppen, 1979 ; Cherikh, 2000). In addition, the scenario achieved the lowest transportation cost (£46,529.17), although its vehicle utilisation, 43.85% is lower in comparison with other scenarios. Amongst the five scenarios, scenario (IV), *centralised warehouse plus shipping via DC using milk-run*, possesses the best logistics performance attributes with the inventory and transportation costs. The scenario produced the shortest distance for the distribution of goods, which implies the possibility for quick-response. Scenario (V) network design was slightly different from the scenario (IV), with respect to vehicle routing. Consequently, inventory

cost remained the same for the scenarios (£61,809.43), while the scenario (V) transportation cost (£80,274.88) was quite higher than other centralised distribution scenario (III, IV). It produced the highest vehicle utilisation performance (47%).

One of the noteworthy outcomes is that the application of risk-pooling strategy, aggregation and consolidation, in centralised warehousing generated a significant inventory and transportation cost savings. Also, given the capacity for consolidation, higher vehicle capacity utilisation is attributed to milk-run shipment, although the distance for this type of distribution network is usually longer.

**Table 2: Ranking of Logistics Performance for the 5 Scenarios**

	Storage Cost	Fixed Cost	Inventory Cost	Inventory Utilisation	Distance	Transportation Cost	Vehicle Utilisation	Total Logistics Performance
Scenario (I)	2	2	2	2	3	3	5	19
Scenario (II)	2	2	2	2	5	5	2	20
Scenario (III)	1	1	1	1	2	1	4	11
Scenario (IV)	1	1	1	1	1	2	3	10
Scenario (V)	1	1	1	1	4	4	1	13

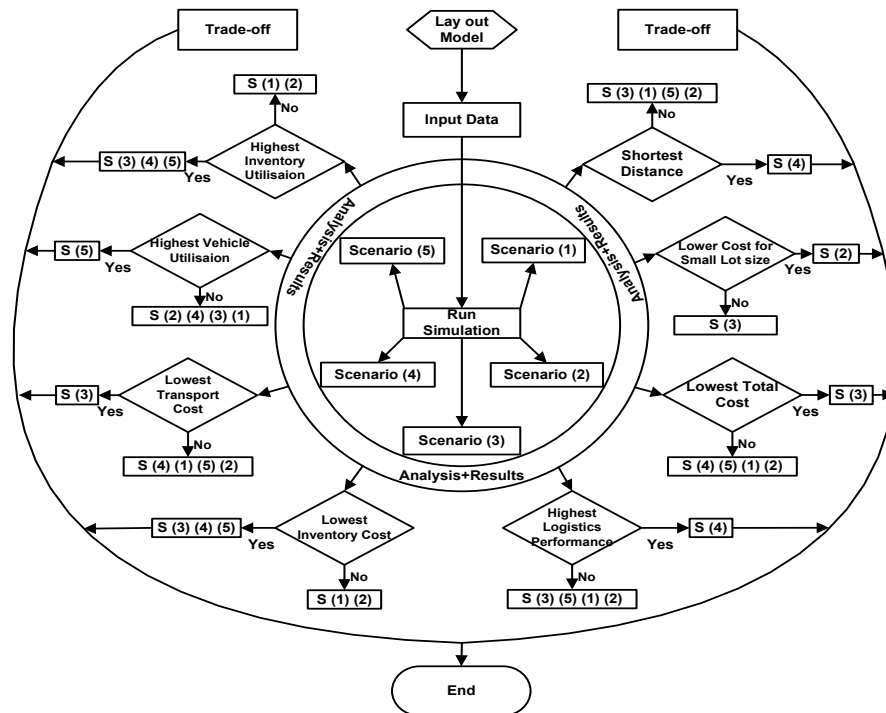
Key: [1:Best, 5:Worst]

Given the evaluation of total distribution cost, utilisation, and related issues, table 2 shows the ranking of the different logistics performances for the 5 scenarios. The performances of decentralised scenarios (I) and (II) are very similar, whereas the centralised scenarios (III), (IV), and (V) have related performance trend. Analysis of the results shows scenario (IV) as having potential of being the optimum distribution network strategy for Corporation A, particularly for the reasons of lower inventory and transportation costs, higher inventory utilisation and shorter routing distance. Findings therefore reiterate the view that the longer the distribution route, the higher the transportation cost.

#### 4.4. Trade-off Distribution Strategy Model Application

On the basis of discussions, assessments and comparisons in this study, and fundamentally the outcomes and findings from table 2, a trade-off distribution strategy model (Fig. 15) has been developed. To support making a suitable choice of distribution network scenario(s), the model relies on table 2, in determining the relative importance-ranking of the eight analysed attributes. Thus, the model shows the eight different attributes (in the quadrilaterals), representing eight features to achieving cost and/or service values. It presents decision-makers with a tool for trade-off analysis to enhance distribution logistics performance. Attributes of this model are shortest distance, lower cost for lot sizes, lowest total cost, highest logistics performance, lowest inventory cost, lowest transport cost, highest vehicle utilisation and highest inventory utilisation. Using this model, the different scenarios discussed can be examined and decision made for application to achieving one or more suitable attributes.

Fig. 15: Trade-off Distribution Strategy Model



When the desire is to achieve quick-response to market, opinions by authors as Chopra and Meindl (2010) support the view that scenario (I), *direct shipment*, holds potentials that are worth consideration, particularly the capacity to handle high level of varieties, and the need to eliminate intermediate warehouses to achieve simplicity in operation and coordination. However, application of scenario (I) incurs high inventory and transportation costs, as shown by results in table 2. In addition, it generates a lower vehicle utilisation due largely to the empty truck load (ETL) in backhaul. Scenario (II), *milk-run* enables a pattern of goods consolidation through calls to multiple pick-up sites, resulting in higher vehicle utilisation and delivery of transport cost-savings. Findings show that milk-run distribution network strategy favours the delivery of small lot sizes of goods. However, this decentralised distribution option might have higher inventory cost, because multiple warehouses, and sometimes may result to high total cost. Scenario (III), *centralised distribution with all shipment via DC*, can be more economical by the reason of consolidation in risk-pooling strategy. However, higher vehicle utilisation cannot be guaranteed. In a nutshell, as concerning costs, the scenario (III) achieves the lowest total cost, although its vehicle utilisation is not the best. Scenario (IV) *centralised warehouse plus shipping via DC using milk-run*, shows relatively low inventory and transportation costs. With part application of milk-run shipment, higher vehicle utilisation can be achieved than is the case for direct shipment. An integrated analysis of all distribution features reveals that this scenario produces the highest logistics performance. However, it may have increased coordination complexities. Scenario (V) *centralised warehouse plus shipping via DC using milk-run (2)*, tends to be appropriate to achieving similar attributes as in the case for the scenario (IV). The routing for this type of milk-run shipment is improved, producing higher vehicle utilisation than those other four scenarios. One could however, anticipate goods coordination challenges within the DC.

**4.5. Distribution Strategy Model’s (DSM) Areas of Application**

In addition to the manufacturing industry, the distribution strategy model will be relevant and applicable in firms of transport operators, supply chain solution specialists, third party logistics (3PLs), fourth party logistics (4PLs) and any other business sector with distribution interests. The model provides a tool to:

- Support the decision-making process of businesses in determining the most appropriate distribution network.



- Consider, design, re-consider and re-design various distribution network scenarios as developed and implemented in section 3.2, Figs. 2-6 using simulation techniques.
- Optimise the utilisation of businesses' distribution resources, thus supporting profit maximisation.
- Stimulate more interest in key areas of supply chain re-engineering in the industry and theoretical domains.

## 5. CONCLUSION

The nature of distribution network design and its operations can have significant implications on the whole supply chain. The discussed case study (Corporation A) operated a decentralised distribution strategy that created high costs, thereby faced with the need for re-engineering of the supply chain and distribution operations. Supplied data were used to run different simulation scenarios and generated outputs were analysed for informed distribution network decisions. Scenario (I) presented the current distribution network of the company, while Scenario (IV) which yielded the total highest logistics performance presents the option of centralised warehouse plus shipping via DC using milk run. Scenario (III) (i.e. centralised warehouse plus all shipment via DC) has the potential for an economic output, given capacity for lower inventory and transportation cost; however, it could yield lower vehicle utilisation. Scenario (V), centralised warehouse plus shipping via DC using milk-run (2) combine the strengths of scenarios (II) and (III). Trade-off analysis, on which platform discussions were made in this paper, is deemed crucial when making decisions for a suitable and feasible distribution network strategy. Based on findings in relation to driving down costs while simultaneously increasing capacity utilisation, the proposed trade-off distribution model provides a tool to enable companies enhance distribution network and thus logistics performance. Results show that network design, transportation frequencies and inventory levels have significant impacts on the associated costs and performance of a particular distribution network, hence form integral parameters for consideration in strategy decisions. The distribution strategy model (DSM) is relevant in the manufacturing industry offering opportunities for cost-savings and efficient distribution operations as analysed in the case of Corporation A. However, the potential and applicability of the model extends to firms of transport operators, supply chain solution specialists, third party logistics (3PLs), fourth party logistics (4PLs) and any other business sector with distribution interests. The research limitation can be seen in the light that simulation led quantitative approach was primarily adopted in developing and discussing the different developed distribution scenarios. This approach could also have been supplemented by qualitative research means. To further test the model, firms in the discussed and related industries are invited to consider adopting findings in this paper and the distribution strategy model in the designing and re-designing of their distribution network, and share their experiences and implementation implications. The development of the distribution strategy model (DSM) has been based on data from the manufacturing sector's distribution operation. Experimentation attention will be focused on adapting and further testing the model in the business of common carriers and supply chain solution specialists.

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**Appendix A: Development and Analysis of Simulation Scenarios**

**Scenario (I) Decentralised Warehouse + Direct Shipment**

**(1) Inventory Cost**

Inventory cost is determined by the average level of inventory and multiple by the inventory unit cost. The average level of inventory is founded on safety stock policies. Safety stock relates to the numerical value of the customer service element, lead time and standard deviation of demand (Schonsleben, 2004). Table 3 shows service levels and their corresponding service factor.

**Table 3: Service Level (SL) and Service Factor (SF)**

SL	90%	91%	92%	93%	94%	95%	96%	97%	98%	99%	99.9%
SF (z)	1.29	1.34	1.41	1.48	1.56	1.65	1.75	1.88	2.05	2.33	3.08

Source: (Simchi-Levi *et al.*, 2009)

As inventory level for decentralised warehouse (current warehouse) is supplied by cooperation A, inventory cost equals quantity multiplied by unit costs plus fixed costs.

**(2) Inventory Utilisation**

Inventory turnover ratio (ITR) parameter is used in representation of inventory utilisation, thus in this paper, it provides an effective approach to inventory utilisation quantification. The ITR as reviewed by (Schonsleben, 2004) is:

$$Inventory\ turnover\ ratio\ (ITR) = \frac{annual\ sales}{average\ inventory\ level}$$

**(3) Transportation Cost**

**Distance**

Given the operations of ‘Corporation A’ (the case study), the distances of distribution routes were measured by GIS for scenario (I), representing the current network of the firm. With input data of departure and destination, tools were used for route distance measurement and optimisation-planning to reaching solutions for different customers’ requirements.

**Table 4: Algorithm for Truckload Analysis for Scenario (I)**

D	Unit	Dis	Drop-in/trip	No. of trips (Round up to)	Distance	Total Distance
$x_i$	$m$	$d_i^{MR}$	$\frac{x_i}{J}$	$\left\lceil \frac{x_i}{J \cdot m} \right\rceil$	$d_i^{MR} \cdot \left\lceil \frac{x_i}{J \cdot m} \right\rceil$	$\sum_{i=1}^I d_i^{MR} \cdot \left\lceil \frac{x_i}{J \cdot m} \right\rceil$

Note: Dis = Distance, D = demand, and [.] takes the ceiling integer.

To determine the number of trips, drop-in load/trip in CDC was calculated. The number of trips is an integer which takes the ceiling integer. Then, the distance based on the number of total trips can be determined. (Table 4)

**Freight**

The freight rates (GBP per tonne-km) ( $f$ ), were supplied by Corporation A, and constituted integral elements in the calculation of transportation cost (freight). This can be calculated by freight rate ( $f$ ) × Distance ( $d_i^{MR} \cdot n$ ).

**(4) Determination of Truck Utilisation**

In this light, table 5 presents algorithms which are developed to support the determination of truck utilisation in scenario (I).

**Table 5: Algorithm for Truckload Utilisation Rate for Scenario (I)**

Actual Load	Total Trip Load	Average Utilisation	Average Utilisation for <i>i</i> warehouses
$\frac{x_i}{J}$	$2 \cdot m \cdot \left\lceil \frac{x_i}{J \cdot m} \right\rceil$	$\left( \frac{x_i}{2 \cdot J \cdot m \cdot \left\lceil \frac{x_i}{J \cdot m} \right\rceil} \right) \times 100\%$	$\frac{\sum_{i=1}^I \left( \frac{x_i}{2 \cdot J \cdot m \cdot \left\lceil \frac{x_i}{J \cdot m} \right\rceil} \right)}{I} \times 100\%$

As shown in

Table 5, vehicle utilisation is the ratio between actual load and truck load-capacity utilisation. Here, the actual load tons to RDCs, equals required tons of goods multiplied by quantity of demand in each warehouse. The total trip load is the return trip (2 times) multiplied by unit of truckload, quantity of demand in each warehouse, and number of trips. The average utilisation for *i* warehouses is the average of all utilisation.

**Scenario (II) Decentralised Warehouse + Milk Run Shipment**

**(1) Identification of Transportation Cost**

**Distance**

The distance measurement hinges on analysing different of truckloads that influence the number of trips a vehicle would make. As shown in table 6, In a trip, the rate of load pick-up (i.e. load/trip) via each warehouse (*i*=1, 2,..., *I*) is  $\frac{x_i \cdot m}{\sum_{i=1}^I x_i}$ .

**Table 6: Algorithms for the pick-up load per trip at warehouse *i***

Location (Warehouses)	The pick-up load per trip at warehouse <i>i</i>
<i>i</i> =1,2, ..., <i>I</i>	$\frac{x_i \cdot m}{\sum_{i=1}^I x_i}$

On the basis of table 6, the number of trips in terms of rate of truckload per vehicle can be measured. Table 7 shows the relationship between declining rate of truckload and trips, and also the decline of truckload in different trips in per warehouse. The decline amount of goods in each trip is followed by the decreasing rate of truckload.

**Table 7: Analysis of the Relationship between Rate of Truckload and Trips in Four Plants in Scenario (II)**

Warehouse	Rate	Tons	1st Trip	2nd Trip	<i>n</i> trips
<i>i</i> = 1,2, ..., <i>I</i>	$\frac{x_i \cdot m}{\sum_{i=1}^I x_i}$	$x_i$	$x_i - \frac{x_i \cdot m}{\sum_{i=1}^I x_i}$	$\left( x_i - \frac{x_i \cdot m}{\sum_{i=1}^I x_i} \right) - \frac{x_i \cdot m}{\sum_{i=1}^I x_i}$	$x_i - n \cdot \left( \frac{x_i \cdot m}{\sum_{i=1}^I x_i} \right)$
Total		$\sum_{i=1}^I x_i$	$\sum_{i=1}^I x_i - m$	$\sum_{i=1}^I x_i - 2 \cdot m$	$\sum_{i=1}^I x_i - n \cdot m$

The distance of one trip was measured by GIS, therefore, the total distance was determined multiplying 1st trip distance (*d*<sub>2</sub>) by the number of trips (*n*).

**Freight**

Given the freight rate (GBP per Ton/Km) (*f*) supplied by Corporation A, transportation cost can be calculated, using the equation; freight (transportation cost) =Freight rate (*f*) ×Distance (*d*<sub>2</sub> · *n*).

**(3) Determination of Truck Capacity Utilisation**

The table 8 shows the algorithm for truck capacity utilisation rate for scenario (II).

**Table 8: Algorithms for the Truckload Utilisation Rate for Scenario (II)**

Pick-up Site	Depot	Warehouse A (i=1)	Warehouse B (i=2)	Warehouse i
Load	0	$x_1^{L/T}$	$x_1^{L/T} + x_2^{L/T}$	$x_1^{L/T} + x_2^{L/T} + x_3^{L/T} + \dots + x_i^{L/T}$
Drop-in Site	RDC J (j=1)		RDC A-Depot (j=10)	
Load	$\sum_{i=1}^I x_i^{L/T} - \sum_{j=1}^J \frac{j \cdot m}{J}$		0	
Actual Load			Full Load	Utilisation rate
$\left[ i x_1^{L/T} + (i-1)x_2^{L/T} + \dots + x_i^{L/T} \right] + \left( J \cdot \frac{\sum_{i=1}^I x_i^{L/T} - \sum_{j=1}^J \frac{j \cdot m}{J}}{m \cdot (I+J+1)} \right)$			$m \cdot (I+J+1)$	$\frac{\left[ i x_1^{L/T} + (i-1)x_2^{L/T} + \dots + x_i^{L/T} \right] + \left( J \cdot \frac{\sum_{i=1}^I x_i^{L/T} - \sum_{j=1}^J \frac{j \cdot m}{J}}{m \cdot (I+J+1)} \right)}{m \cdot (I+J+1)} \times 100\%$

Load in a truck is in a constant growth trend in the order of A-B-C-D with pick-up rate (e.g.  $\frac{x_i \cdot m}{\sum_{i=1}^I x_i}$ ). The tons of loads peak at final warehouse D, and afterwards, the truck drops specific rate of goods (i.e.  $\frac{m}{J}$ ) in each RDC, and then returns to transportation depot with ETL.

**Scenario (III) Centralised Warehouse + All shipments via Distribution Centre**

**(1) Identification of CDC/Warehouse Location**

Scenario (III) and the following scenarios (IV) and (V) are based on the centralised distribution network, thus there is the need to identify CDC/warehouse locations. For this location determination, weighted average method was used, and is discussed as follows:

The coordinate of centre of gravity of CDC can be found by (Thai and Grewal, 2005), On the basis of the equation, the coordinate of CDC  $\bar{C}_{CDC}$  is determined by weight  $x_i$  (demand volume in manufactures and RDCs) and coordinate of manufactures and RDCs, with the notation of  $C_i$  and  $C_j$ , respectively.

$$\bar{C}_{CDC} = \frac{\sum_{i=1}^I x_i \cdot C_i + \frac{\sum_{i=1}^I x_i}{J} \cdot J \cdot C_j}{\sum_{i=1}^I x_i + \frac{\sum_{i=1}^I x_i}{J} \cdot J}$$

Where: the total volumes in all warehouses are equally distributed to J RDCs, hence the volumes for each RDC are  $\frac{\sum_{i=1}^I x_i}{J}$ .

**(2) Inventory Cost**

Assuming inventory aggregation takes place in the CDC, there is a need to assess the distribution of aggregated demand. The aggregated demand is normally distributed, with an average of  $D^c$  standard deviation of  $\sigma_D^c$ , a variance of var (DC) and an assumption of lead-time ( $L$ ) (Chopra and Meindl, 2010). Therefore, average inventory in centralised CDC/warehouse is:

$$\text{Average inventory level} = z \cdot \sqrt{L} \cdot \sigma_D^c + \frac{Q}{2}$$

[Note: The quantity ( $Q$ ) in equation below represents Economic Order Quantity (EOQ) model; the data  $k$  and  $h$  are supplied by "Cooperation A" ]

$$[ Q = \sqrt{\frac{2K \times \text{AVG}}{h}} ]$$

Additionally, it is important to note that the CoV is a ratio used in evaluating the impacts of uncertainty by initiating risk-pooling strategy, i.e. with demand mean ( $\mu$ ) and demand of  $\sigma$ , results in:

$$\text{CoV} = \frac{\sigma}{\mu}$$

The CoV measures the size of the uncertainty relative to the demand (Chopra and Meindl, 2010 ; Simchi-Levi *et al.*, 2009).

**(3) Transportation Cost**

Remembering that for inventory utilisation, the algorithms for all 5 scenarios are the same, attention is hereby given to developing equations for the determination of transportation cost in centralised scenario (III).

**Distance**

**Table 9: Algorithms for Truckload and Distance in Scenario (III)**

From Factory to CDC (1st transportation segment )					From CDC to RDCs (2nd transportation segment)				
D	Truckload Analysis		Distance		Truckload Analysis			Distance	
D	Unit	Drop-in/trip	RW	Distance	Load	Drop-in/Trip	No. Trip	RW	Distance
		Round up to				Round up to			
$x_i$	$m$	$\lceil \frac{x_i}{m} \rceil$	$d_i^{3MC}$	$\lceil \frac{x_i}{m} \rceil \cdot d_i^{3MC}$	$\sum_{i=1}^I x_i$	$\frac{\sum_{i=1}^I x_i}{J}$	$\lceil \frac{\sum_{i=1}^I x_i}{J \cdot m} \rceil$	$d_j^{3CR}$	$\lceil \frac{\sum_{i=1}^I x_i}{J \cdot m} \rceil \cdot d_j^{3CR}$
<b>Total</b>	$\sum_{i=1}^I \lceil \frac{x_i}{m} \rceil \cdot d_i^{3MC} + \lceil \frac{\sum_{i=1}^I x_i}{J \cdot m} \rceil \cdot \sum_{j=1}^J d_j^{3CR}$								
<b>Distance</b>									

Key: RW Round Way; D Demand and  $\lceil \cdot \rceil$  takes the ceiling integer

Table 9 demonstrates the algorithm for analysing truckload and distance. The total distance is the sum of the two transportation segments.

**Freight**

As the freight rate (GBP per Ton/Km) ( $f$ ) is produced, freight can be counted, using freight=Freight rate ( $f$ )×Total Distance.

**(5) Determination of Truck Capacity Utilisation**

**Table 10: Algorithms for truck utilisation in Scenario (III)**

Factory-CDC (1st transportation segment)			CDC-RDCs (2nd transportation segment)		
Actual load	Full load	Utilisation	Actual Load	Full load	Utilisation
$\frac{x_i}{m}$	$2 \cdot \left\lceil \frac{x_i}{m} \right\rceil$	$\frac{x_i}{2 \cdot m \cdot \left\lceil \frac{x_i}{m} \right\rceil} \times 100\%$	$\frac{(\sum_{i=1}^I x_i)^2}{m \cdot J^2}$	$2 \cdot \frac{\sum_{i=1}^I x_i}{J} \cdot \left\lceil \frac{\sum_{i=1}^I x_i}{J \cdot m} \right\rceil$	$\left[ \frac{(\sum_{i=1}^I x_i)^2}{m \cdot J^2} / 2 \cdot \frac{\sum_{i=1}^I x_i}{J} \cdot \left\lceil \frac{\sum_{i=1}^I x_i}{J \cdot m} \right\rceil \right] \times \%$
Total Average Utilisation			$\left\{ \left( \sum_{i=1}^I \frac{x_i}{2 \cdot m \cdot \left\lceil \frac{x_i}{m} \right\rceil} / I \right) \times \% + \left[ \frac{(\sum_{i=1}^I x_i)^2}{m \cdot J^2} / \left( 2 \cdot \frac{\sum_{i=1}^I x_i}{J} \cdot \left\lceil \frac{\sum_{i=1}^I x_i}{J \cdot m} \right\rceil \right) \right] \times \% \right\} / 2$		

In table 10, equations to enable the determination of truck capacity utilisation is presented, as calculated based on the two transport segments of scenario (III). The total truck capacity utilisation is calculated by obtaining the average utilisation rate of the two transportation segments.

**Scenario (IV) Centralised Warehouse + Shipping via DC Using Multi-Route Milk Run**

**(1) Transportation Cost**

**Distance**

Distance attributes are integral influence-factors on transportation cost. Table 11 demonstrates the algorithms of truckload and distance in scenario (IV). In this case, truckload analysis also consists of two transportation segments. In the 1st transport segment is similar to scenario (III)

**Table 11: Algorithm for the Assessment of Truckload and Distance in Scenario (IV)**

Factory - CDC (1st transportation segment)				From CDC to RDCs (2nd transportation segment)							
D	Truckload Analysis		Distance Analysis		Truckload Analysis				Distance Analysis		
	Unit	Drop-in/Round	RW	Distance	Load	Drop-in/Trip	Site	Each needs	Trip Round up to	Dis/Trip	Distance
$x_i$	M	$\left\lceil \frac{x_i}{m} \right\rceil$	$d_i^{4MC}$	$\left\lceil \frac{x_i}{m} \right\rceil \cdot d_i^{4MC}$	$\sum_{i=1}^I x_i$	$\frac{\sum_{i=1}^I x_i}{J}$	o	$o \cdot \frac{\sum_{i=1}^I x_i}{J}$	$\left\lceil \frac{o \cdot \sum_{i=1}^I x_i}{J \cdot m} \right\rceil$	$d_1^{4CR}$	$\left\lceil \frac{o \cdot \sum_{i=1}^I x_i}{J \cdot m} \right\rceil \cdot d_1^{4CR}$
							P	$p \cdot \frac{\sum_{i=1}^I x_i}{j}$	$\left\lceil \frac{p \cdot \sum_{i=1}^I x_i}{J \cdot m} \right\rceil$	$d_2^{4CR}$	$\left\lceil \frac{p \cdot \sum_{i=1}^I x_i}{J \cdot m} \right\rceil \cdot d_2^{4CR}$
							Q	$q \cdot \frac{\sum_{i=1}^I x_i}{j}$	$\left\lceil \frac{q \cdot \sum_{i=1}^I x_i}{J \cdot m} \right\rceil$	$d_3^{4CR}$	$\left\lceil \frac{q \cdot \sum_{i=1}^I x_i}{J \cdot m} \right\rceil \cdot d_3^{4CR}$



	$r$	$r \cdot \frac{\sum_{i=1}^J x_i}{J}$	$\left\lceil \frac{r \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil$	$d_4^{4CR}$	$\left\lceil \frac{r \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil \cdot d_4^{4CR}$
Total Distance=	$\sum_{i=1}^J \left\lceil \frac{x_i}{m} \right\rceil \cdot d_i^{4MC} + \left\lceil \frac{o \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil \cdot d_1^{4CR} + \left\lceil \frac{p \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil \cdot d_2^{4CR} + \left\lceil \frac{q \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil \cdot d_3^{4CR} + \left\lceil \frac{r \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil \cdot d_4^{4CR}$				

With special change in the 2nd transportation segment, goods are delivered to different RDCs ( $J=10$ ) via 4 ( $o, p, q, r$ ) different routes. Each route is distributed to designed close-by locations. The numbers of round-trips for each of the routes are respectively represented in table 11. Afterwards the distances of CDC-RDCs are obtained according to the number of round trips. Finally, the total distances are the sum of distances of the two transportation segments.

**Freight**

Freight can be obtained, based on: freight=Freight rate ( $f$ ) \* Total Distance.

**(4) Truck Capacity Utilisation**

**Table 12: Algorithm for Truck Utilisation in Scenario (IV)**

From factory to CDC				From CDC to RDCs		
Actual load	Full Load	Utilisation	S	Actual Load	Full Load	Utilisation
$\frac{x_i}{m}$	$2 \cdot \left\lceil \frac{x_i}{m} \right\rceil$	$\frac{x_i}{2 \cdot m \cdot \left\lceil \frac{x_i}{m} \right\rceil} \times 100\%$	$o$	$\frac{o^2 \cdot (\sum_{i=1}^J x_i)^2}{m \cdot J^2}$	$\frac{2 \cdot o}{J} \cdot \left\lceil \frac{o \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil$	$\frac{o \cdot \sum_{i=1}^J x_i}{2 \cdot m \cdot J \cdot \left\lceil \frac{o \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil} \times \%$
			$p$	$\frac{p^2 \cdot (\sum_{i=1}^J x_i)^2}{m \cdot J^2}$	$\frac{2 \cdot p}{J} \cdot \left\lceil \frac{p \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil$	$\frac{p \cdot \sum_{i=1}^J x_i}{2 \cdot m \cdot J \cdot \left\lceil \frac{p \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil} \times \%$
			$q$	$\frac{q^2 \cdot (\sum_{i=1}^J x_i)^2}{m \cdot J^2}$	$\frac{2 \cdot p}{J} \cdot \left\lceil \frac{q \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil$	$\frac{q \cdot \sum_{i=1}^J x_i}{2 \cdot m \cdot J \cdot \left\lceil \frac{q \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil} \times \%$
			$r$	$\frac{r^2 \cdot (\sum_{i=1}^J x_i)^2}{m \cdot J^2}$	$\frac{2 \cdot p}{J} \cdot \left\lceil \frac{r \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil$	$\frac{r \cdot \sum_{i=1}^J x_i}{2 \cdot m \cdot J \cdot \left\lceil \frac{r \cdot \sum_{i=1}^J x_i}{J \cdot m} \right\rceil} \times \%$

Key: S means Site (number of the sites called to by truck)

Because the scenario (IV) is integrated with scenario (II) and (III), calculation of total truckload rate is the combination of two procedures. The table 12 shows the specific truckload analysis in scenario (IV). Finally, determination of the *total truck capacity utilisation* is the average of the two transportation segments is calculated.

**Scenario (V) Centralised Warehouse + Shipping via DC with single-route Milk Run**

**(1) Determination of truckload, distance, and freight**

**Distance**

**Table 13: Algorithm of Truckload and Distance in Scenario (V)**

Demand	From factory to CDC (1st transportation segment)				From CDC to RDCs (2nd transportation segment)			
	Truckload analysis		Distance		Truckload Analysis		Distance	
	Unit	Drop-in/Round up to	RW	Distance	Load	n Trip/load	RW	Distance
$x_i$	$m$	$\lceil \frac{x_i}{m} \rceil$	$d_i^{5MC}$	$\lceil \frac{x_i}{m} \rceil \cdot d_i^{5MC}$	$\sum_{i=1}^I x_i$	$\sum_{i=1}^I x_i - n \cdot m$	$d^{5CR}$	$d^{5CR} \cdot n$
<b>Total Distance</b>				$\sum_{i=1}^I \lceil \frac{x_i}{m} \rceil \cdot d_i^{5MC} + d^{5CR} \cdot n$				

Total distances are the sum of two transportation segments (table 13). In the 1st transportation segment, distance  $[\lceil \frac{x_i}{m} \rceil \cdot d_i^{5MC}]$ , can be calculated by multiplying the number of trips and distance covered per trip. For the 2nd transportation segment, the truckload analysis influences the number of trips needed and is similar to the milk run scenario (II), as shown in Figure 3. The numbers of trips are computed based on the truckload parameters, namely  $\sum_{i=1}^I x_i - n \cdot m$ . Finally, the distance for the 2nd transportation segment, ( $d^{5CR}$ ), can be obtained by the multiplication of the number of trips and the distance covered per milk-run trip. Consequently, the total distances are the sum of the 2 transportation segments, as shown.

Freight: As in previous cases, freight =Freight rate ( $f$ )× Total Distance [note: Freight rate (GBP per Ton/Km) ( $f$ ) is supplied.

**(2) Determination of Truck Capacity Utilisation**

At this point, the algorithm for determination of truck capacity utilisation in scenario (V) is presented in table 14 and consequently explained.

**Table 14: Algorithm for Truck Utilisation in Scenario (V)**

From factory to CDC (1st transportation segment)			
Actual load	Full load	Utilisation	
$\frac{x_i}{m}$	$2 \cdot \lceil \frac{x_i}{m} \rceil$	$\frac{x_i}{2 \cdot m \cdot \lceil \frac{x_i}{m} \rceil} \times 100\%$	
From CDC to RDC (2nd transportation segments)			
Drop-in Site	RDC J	RDC j (j=1,2,3,...J)	RDC A-Depot
Load	$m - \frac{m}{J}$	$m - \frac{j \cdot m}{J}$	0
Actual Load	Full Load	Utilisation rate	
$j \left( m - \frac{m}{J} \right) + (j-1) \left( m - \frac{m}{J} \right) + \dots + (j-1) \left( m - \frac{m}{J} \right)$	$m \cdot (J+1)$	$\frac{j \left( m - \frac{m}{J} \right) + (j-1) \left( m - \frac{m}{J} \right) + \dots + (j-1) \left( m - \frac{m}{J} \right)}{m \cdot (J+1)} \times 100\%$	
<b>Total Utilisation</b>	$\left\{ \frac{\sum_{i=1}^I \frac{x_i}{2 \cdot m \cdot \lceil \frac{x_i}{m} \rceil} \times 100\%}{I} + \frac{j \left( m - \frac{m}{J} \right) + (j-1) \left( m - \frac{m}{J} \right) + \dots + (j-1) \left( m - \frac{m}{J} \right)}{m \cdot (J+1)} \times 100\% \right\} / 2$		

Initially, for the 1st transportation segment, truck capacity utilisation ratio is obtained in the same manner of scenario (III). In the 2nd transportation segment, the ratio is in a constant decline from the CDC back to the same CDC via the designated RDCs. Thus, the truck capacity utilisation is the ratio between the actual truck capacity utilisation and assumed truck capacity utilisation. In this light, the total truck capacity utilisation for the scenario (V) is the average of the two transportation segments, as finally shown in table 13.

**Appendix B: Annual Demands of 4 Types of Goods in 4 Manufactories**

Type A(White Board)													Average	
Month	1	2	3	4	5	6	7	8	9	10	11	12	Total	Demand
Mill A	176	153	182	180	175	166	167	213	234	244	285	236	2411	200.92
Mill B	142	98	89	120	105	104	103	205	271	350	360	370	2317	193.08
Mill C	140	134	140	123	133	137	151	125	156	137	144	135	1655	137.92
Mill D	160	134	142	148	139	128	135	140	136	152	164	174	1752	146.00
<b>Total</b>	<b>618</b>	<b>519</b>	<b>553</b>	<b>571</b>	<b>552</b>	<b>535</b>	<b>556</b>	<b>683</b>	<b>797</b>	<b>883</b>	<b>953</b>	<b>915</b>	<b>8135</b>	<b>677.92</b>

Type B (Ivory Board)													Average	
Month	1	2	3	4	5	6	7	8	9	10	11	12	Total	Demand
Mill A	132	143	122	130	125	176	207	233	254	264	275	286	2347	195.58
Mill B	102	198	189	120	105	104	103	235	151	230	220	240	1997	166.42
Mill C	130	134	140	123	133	137	151	125	156	177	174	185	1765	147.08
Mill D	140	134	142	148	139	128	135	140	136	132	134	134	1642	136.83
<b>Total</b>	<b>504</b>	<b>609</b>	<b>593</b>	<b>521</b>	<b>502</b>	<b>545</b>	<b>596</b>	<b>733</b>	<b>697</b>	<b>803</b>	<b>803</b>	<b>845</b>	<b>7751</b>	<b>645.92</b>

Type C (carbon free paper)													Average	
Month	1	2	3	4	5	6	7	8	9	10	11	12	Total	Demand
Mill A	122	127	122	130	125	136	127	133	144	154	155	156	1631	135.92
Mill B	162	158	179	145	155	144	153	165	151	143	165	160	1880	156.67
Mill C	116	123	130	132	125	134	118	132	121	130	169	175	1605	133.75
Mill D	134	123	134	127	132	145	137	144	126	140	160	172	1674	139.50
<b>Total</b>	<b>534</b>	<b>531</b>	<b>565</b>	<b>534</b>	<b>537</b>	<b>559</b>	<b>535</b>	<b>574</b>	<b>542</b>	<b>567</b>	<b>649</b>	<b>663</b>	<b>6790</b>	<b>565.83</b>

Type D (Thermal Paper)													Average	
Month	1	2	3	4	5	6	7	8	9	10	11	12	Total	Demand
Mill A	134	122	121	121	131	145	121	134	135	125	126	126	1541	128.42
Mill B	121	115	125	131	112	114	115	111	119	118	120	187	1488	124.00
Mill C	38	34	22	0	0	0	26	23	25	35	46	47	296	24.67
Mill D	7	0	0	0	23	22	15	16	18	20	22	34	177	14.75
<b>Total</b>	<b>300</b>	<b>271</b>	<b>268</b>	<b>252</b>	<b>266</b>	<b>281</b>	<b>277</b>	<b>284</b>	<b>297</b>	<b>298</b>	<b>314</b>	<b>394</b>	<b>3502</b>	<b>291.83</b>

Total Demand	
Mill A	7930
Mill B	7682
Mill C	5321
Mill D	5245
<b>Total</b>	<b>26178</b>

Unit: Tonnage



## A STUDY TO DETERMINE THE RELATIONSHIP BETWEEN CONSUMERS' PERCEPTIONS OF HALAL CERTIFICATES AND THEIR RELIGIOUS ORIENTATIONS

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### ABSTRACT

**Purpose-** This study was conducted in Isparta and Burdur sample provinces to determine the relationship between the halal certificate perceptions of consumers and their religious orientations. Besides, it is also aimed to determine the halal certificate perceptions and religious orientations of consumers.

**Methodology-** A descriptive research model was used in the study. In addition, factor analysis, reliability test, KMO tests and correlation analysis were conducted. The relationship between the halal certificate perceptions of consumers, and their religious orientations was tried to be determined according to the research model.

**Findings-** Six factors emerged in the dimensions of halal certificate perceptions of consumers. The emerged factors according to the items they contained were named as "Halal Certificate and Control", "Promotion", "Market Demand", "Quality and Attraction", "Accessibility" and "Retailer". Four factors were found in the religious orientations of the consumers. The emerged factors according to the items they contained were named as "Intrinsic Religious Orientation", "Religious Interest", "Religion and Prayer", and "Liberalism".

**Conclusion-** In the study, positive, significant, and weak relationships were observed among most of the dimensions and it was found that the participants who position themselves as liberal have no or low interest in halal-certified products. Besides, it was also revealed that advertising of halal products through mass media is not very important for the participants. Likewise, it may be beneficial to review the places where halal products are supplied since different opinions arise among the participants regarding the supply locations of halal products.

**Keywords:** Halal certificate, consumer, consumer behavior, religiosity, religious orientation.

**JEL Codes:** M30, M31, M37

### 1. INTRODUCTION

In the globalizing world, such factors as increasing competition among companies, individual differences, expectations, and needs of consumers have made food products much more important. We can add religious beliefs, part of the cultural element, to the economic, psychological, social and cultural factors affecting the purchasing behavior of consumers. At this point, for many Muslims who seriously consider halal products, it is vitally important that food must be halal and suitable for religion. That the food is suitable for religion is extremely significant for conscious and faithful consumers. For Muslim consumers, food should not only be of good quality but also halal (Golz et al. 2009: 65). At this point, Muslim consumers, in particular, are highly responsive. Moreover, the first test of man after he was created was with food while he was in Paradise.<sup>1</sup>As a matter of fact, in the holy book of Muslims, the Holy Qur'an, it is indicated that the Prophet Adam and his wife Eve, who were placed in Paradise, were given a warning (Çakır, 2013: 22). *"And We said, O Adam, dwell, you and your wife, in Paradise and eat therefrom in [ease and] abundance from wherever you will. But do not approach this tree, lest you be among the wrongdoers."* (Surah Al-Baqarah

<sup>1</sup> Here, the "apple" is accepted as a symbolic meaning for some religious scholars and it is important to indicate the concept of halal, therefore. For further information about the subject see Encyclopaedia of Islam Religious Foundation of Turkey, Volume 16, Pages: 542-545.

2/35). As, in the religion of Islam, Allah has revealed all the things that He has forbidden to His servants. *Why should ye not eat of (meats) on which Allah's name hath been pronounced when He hath explained to you in detail what is forbidden to you - except under compulsion of necessity? But many do mislead (men) by their low desires without knowledge. Thy Lord knoweth best those who transgress (Surah Al-An'ām 6/119).*

One of the issues Muslim consumers take into account when purchasing food products is halal certificates. At this point, the importance of halal certificate increases in the world food trade. With the increased awareness of consumers of the Islam religion about halal food and products, food products with halal certificates gain an advantage over non-certified products in the world markets. Halal certificate is a substantial practice for Muslim consumers to produce a product that is acceptable and consumable worldwide. Because this situation includes about two billion Muslims as well as millions of other non-Muslims who prefer to buy halal products. In this context, the halal certificate is extremely important in terms of market share for both consumers and businesses that will meet the demand in question.

It is seen that the concept of the halal certificate has emerged as a result of both Muslims' aim to protect their religious identity and the religious sensitivities of those living in non-Muslim countries such as the United States, Europe, certain parts of Asia and the Pacific countries. In this context, "Halal Documentation" was first applied in the USA in the mid-1960s. The first example of the subject as "Halal Certificate" in the world appeared in 1971 in Malaysia. Jabatan Kemajuan Islam Malaysia (JAKIM) has been providing halal certificate since 1982. In Turkey, it is known that Sure Guarantee Brand Company was established to carry out "Halal Documentation" studies in the 1990s. In the world, the "Halal Food Standard" proposal was brought to the agenda for the first time by the Malaysian government at the 32nd Islamic Foreign Ministers Conference held in 2005 and thus, this issue was included in the agenda of the official institutions in Turkey during the mentioned date (Torlak, 2012; Tekle et al. 2013: 4).

As mentioned before, in Turkey, history of the halal certificate is not too old. The fact that the products also have halal certificates causes different reactions in the country where almost all of the population is Muslim. There may be a perception that products that do not have a certificate are not halal product. However, in addition to those who support the certificate due to many food-related diseases that have emerged in recent years, there are also those who criticize the issuing of the certificate by a private institution instead of the state (Yener, 2011). Another problematic matter with halal certificate is the perception that these certificates are increasingly used for marketing and commercial purposes. Namely, with these certificates issued for commercial concern and marketing purposes, awareness is created for consumers about product quality and halal product. At this point, there is a search for a product bearing a symbol or an image that will meet the expectation of halal products for consumers and certify that the product is halal. This situation has caused the symbols and signs to influence consumers by having them focus on the symbols and signs carried by the products rather than the substances contained in the products.

In Turkey, despite the greater emphasis on halal certificate issues, especially recently, it is seen that awareness, interest and knowledge on halal food has been extremely limited. The importance given to the halal certificate requirement is behind not using pork products in food and beverages (Tekin and Turhan, 2017: 320). It has been revealed that a part of the country does not know about halal food, some are despised, and some do not care much even if they know. When looking at the answers given to the question "What is halal food?", two answers came forward. The first one is that "Halal food is a product purchased with hard-earned money". The second one is that halal food is a product which is suitable for religion. Surprisingly, those who gave the first answer were higher in number than those who gave the second answer. Cited by Çakır (2013), considering the fact that the participants of the study are educated people, it appears that the results should be examined better. Another remarkable result from the study is that in Turkey, only 3% of the consumers seem to decide to purchase just by reading and checking information on products and only 1% of this 3% group check whether the products have halal certificate. It is yet another remarkable point that the packaging, brand, and recognition of the product is more important to purchase than the content of the product.

There appears unfortunately not enough sufficient awareness concerning halal food in Turkey. For example, Güzel and Çağlar (2017) studied 986 sermons and 280 preachings of the Presidency of Religious Affairs, one of whose duty is to inform the public about halal and haram food. As a result of the study, it was determined that the Presidency of Religious Affairs, which is accepted as the primary religious authority, gives less place to halal and haram food issues in sermons and preaching compared to other subjects such as the importance of special days and nights, sins, marriage and youth.

## **2. LITERATURE REVIEW**

Halal can be defined as things which are allowable, hygienic or healthy (Shafie and Othman, 2006: 1); products not containing any substances which are objectionable to be consumed by Muslims (Zakaria, 2008: 604), products that are allowed in the

Qur'an and are permissible, therefore (Dali, et al. 2008: 3). According to another definition, halal, which is an Arabic origin word, is declared by IFANCA (Islamic Food and Nutrition Council of America) as "legitimate; allowed" (Kurtoğlu and Çiçek, 2013: 182).<sup>2</sup>

Studies on consumer behavior revealed that the religious beliefs of consumers are related to their consumption behaviors (Swimberghe et al. 2009: 340). When the concept of halal product is mentioned, "the product that is not prohibited religiously and produced under religious rules" flashes in the minds of consumers (Torlak, 2012: 2). At this point, the concept coming to the minds of consumers is mostly halal food, and when it comes to halal food, meat and meat products step forward, likewise. The following verse in the Quran about meat is quite revealing: Prohibited to you are dead animals, blood, the flesh of swine, and that which has been dedicated to other than Allah, and [those animals] killed by strangling or by a violent blow or by a head-long fall or by the goring of horns, and those from which a wild animal has eaten, except what you [are able to] slaughter [before its death], and those which are sacrificed on stone altars, and [prohibited is] that you seek decision through divining arrows. That is grave disobedience.<sup>3</sup> (Surah Al-Mā'idah 5/3). In another verse; HE has only forbidden you what dies of itself and blood and flesh of swine and that over which any other name than that of Allah has been invoked (Surah An-Naḥl 16/115).<sup>4</sup> However, halal product is not just a concept related to meat and meat products. In this context, it should be kept in mind that bakery products should also be halal. Besides, foods should consist of products that do not contain alcohol and alcohol derivatives as well as pork and pork products. Islam has set certain criteria to determine whether a food product is halal (Dali, et al. 2008: 4). These are as follows:

- All of the used food and materials in food production had better be all halal.
- Animals such as cattle, goats, etc. whose halalness is not suspected should be slaughtered in accordance with Islam; the cutting should be performed by a Muslim who is not mentally problematic, and who uses a sharp knife and gives no torment to the slaughtered animal.
- Halal foods cannot be mixed with any food whose halalness is suspected; similarly, halal foods must be kept away from products of animals such as pigs and dogs, which are not halal, in such processes as storage, transportation, cooking and serving.

Halal certificate is accepted as a document in which products complying with Islamic dietary rules are certified and issued by Islamic organizations (Hanzaee and Ramezani, 2011: 3). According to another accepted definition in Turkey, the halal certificate is a method that involves a reputable, competent, and impartial institution to inspect the production in question, to confirm that the production has been made by halal standards and to issue an approved document, accordingly. Along with the condition of being halal in foods, health compliance and cleanliness are also essential conditions. It also provides food safety support services to the control units of the halal certificate country administration ([www.hak.gov.tr](http://www.hak.gov.tr).)

The first example of halal food certification in the world appeared in 1971 in Malaysia. Jabatan Kemajuan Islam Malaysia (JAKIM) has been providing halal certificate since 1982. In this regard, the Codex Alimentarius Commission points to Malaysia as the best example of halal food (Ibrahim and Mokhtarudin, 2010: 42).

Turkish Standards Institute, which is a government agency, gives halal certificates in Turkey. In order to obtain a Halal Food Certificate, after the official application is made to Turkish Standard Institute, both the Inspection Committee, consisting of at least two experts from the Turkish Standard Institute and Presidency of Religious Affairs conduct an examination in the production site according to the relevant standard. In this review, it is determined on-site whether the production of the product, which is requested to be certified, is carried out under the conditions that are appropriate by the standard. The first stage of the certification is completed after the laboratory inspections and tests of the products of the companies which are found appropriate. These reports prepared for the Halal Food Certification Commission, which consists of 5 people, including one member from the Presidency of Religious Affairs, are presented as suggestions and the final certification decision is made unanimously by this commission. In the businesses that has received "Halal Food Certificate" for its product, interim checks are made at least twice a year, and the products are inspected by taking samples when necessary. Unlike other certification applications, if any violation of the standard and contract provisions is detected through interim controls, the Halal Food Certificate is canceled without any warning (Gündüz, 2013: 399; Yılmaz et al. 2017: 407).

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<sup>2</sup> For more information regarding the subject see History of Religion, Volume 17, pages 173-175, Kürşat Demirci; Fiqh, 1998, Volume 17, pages 175-178, Ferhat Koca

<sup>3</sup> Fisk can be defined as acting contrary to the prohibitions and orders of the Islam religion. For further information concerning the subject see, Fiqh, 1996, Volume 13, pages 37-38, Ali Şafak; Hadith, 1996, Volume 13, pages 38-39, Emin Aşıkutlu.

<sup>4</sup> It is haram to eat the meat of a pig and a dog, or a dead animal that has died in a way other than Shari'ah. For more information, see Abdurrahman Jazeera, the Islamic Fiqh by Four Sects, translated by Mehmet Keskin, Çağrı Publications, İstanbul, 1989, 49, 5/3.

The purpose of the halal food certification is to ensure healthy, hygienic and halal products for all consumers in Turkey and the world. Besides, the biggest benefit of the products being exported from or imported to Turkey is the prevention of harm to the consumers, animals and the environment (Batu, 2012: 56). The validity period of the halal certificate varies according to the type of product (Riaz and Chaudry, 2004: 166).

The main organizations providing halal certificates in Turkey are listed below (Kızılkaya, 2017: 58);

- Food and Necessary Materials Inspection and Certification Research Association (known as GIMDES in Turkey),
- Turkish Standards Institute (known as TSE in Turkey),
- Halal Control Center (known as HEDEM in Turkey),
- Halal certificate Association (known as HELÂLDER in Turkey),
- World Halal Union.

There are many institutions and organizations that issue halal certificates in the world, these institutions are listed as follows (Kızılkaya, 2017: 59):

- Islamic Food and Nutrition Council of America (IFANCA),
- Halal Feed and Food Inspection Authority (HFFIA),
- The Islamic Coordinating Council of Victoria (ICCV),
- Jabatan Kemajuan Islam Malaysia (JAKIM),
- Majelis Ulama Indonesia (MUI),
- The Majlis Ugama Islam Singapore (MUIS),
- World Halal Council (WHC),
- Halal Certification Authority International

JAKIM is the generally accepted institution in the world regarding halal food certification. In order to have the halal certificate of JAKIM, it is necessary to successfully pass several processes such as application, examination, observation, and approval. There are generally seven basic requirements for halal food in Malaysia, the center of JAKIM (Samori et al. 2014: 483-484).

- Animal and vegetable foods used in the production of halal food, and beverages should be halal:
- Slaughtering of halal and non-halal animals should never be performed together:
- Product processing, transportation, and distribution must comply with halal regulations:
- Equipment and other services used in the storage, display, and presentation of the product should be obtained from absolutely halal items:
- Hygiene, sanitation and food safety must comply with halal regulations:
- Packaging and labeling should be carefully evaluated by JAKIM:
- Legal requirements must be fulfilled.<sup>5</sup>

GIMDES is a nonprofit organization founded to conduct research and certification activities concerning halal and healthy products in Turkey. Certificate studies focus on food, cosmetics and health products. Since 2005, it has been working around this goal. "GIMDES HELÂL CERTIFICATE" is given to the producers by GIMDES after the relevant procedures.<sup>6</sup>

In addition to GIMDES, the Turkish Standards Institute, in addition to its important role in the organization of OIC<sup>7</sup> in the preparation of the international halal standard, examined the "Halal Food Standard" practices worldwide and worked to prepare the Turkish standard for halal food (Çukadar, 2015: 9). In this context, in Turkey, the Turkish Standards Institute, in cooperation with the Presidency of Religious Affairs, has started halal product certification since 4 July 2011 (Pelit and Nas, 2017: 833).<sup>8</sup>

SMIIC Standards, ISO 22000 Food Safety Management System Standards, Turkey legislation and Turkish Standards are taken into consideration in the preparation of used documents in the investigation (Gündüz, 2013: 399-400).

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<sup>5</sup> For the Halal Certificate Process of JAKIM, see Standardisation for Halal Food, (2004), Standards and Quality News, Vol. 11, No 4, July-August, [www.sirim.my](http://www.sirim.my), 5.

<sup>6</sup> For the Halal Certificate Process of GIMDES, see [www.gimdes.org](http://www.gimdes.org). Access Date: 06.05.2019  
OIC stands for Organization of Islamic Cooperation

<sup>8</sup> For the Halal Certificate Process of the Turkish Standards Institute, see Turkish Standards Institute Halal Food Compliance Certification (Source: Gündüz, 2013: 399).

A common language has not been established for certification of halal among Muslim countries. Halal products trade has increased globally, which has led to the emergence of different halal standards and certification systems. Turkey took step with SMIIC on halal certificate. With the SMIIC certification system, it is aimed to establish worldwide halal standards and an international accreditation system, but the SMIIC accreditation system is not yet functional ([www.hak.gov.tr](http://www.hak.gov.tr)).

It has become compulsory to establish a halal accreditation body within the public body for Turkey's representation in the process of providing halal accreditation in international fora and to lead studies on this subject. In this direction, Halal Accreditation Authority (HAK) was established in 2017 with Law No. 7060 and Presidential Decree No. 4 ([www.hak.gov.tr](http://www.hak.gov.tr)).

Halal certificate is a document that is increasingly recognized by Muslim consumers and taken into consideration as a standard has been introduced for food and other necessities with the halal certificate. In this context, it is extremely important that additives and production processes comply with Islamic law in the halal certificate process (Sayın, 2013: 34).

Products used by Muslim consumers must be certified. However, a certificate is not required for medicines used for therapeutic purposes. In this context, products to be certified can generally be stated as red and white meat, dairy products, ready-made foods, cosmetics and personal care products (Riaz and Chaudry, 2004: 167). Apart from these products, egg and egg products, cereal and grain products, vegetable and animal origin oils and fats, fruit and vegetables and their products, sugar and confectionery products, beverages (soft drinks, honey and by-products, nutritional supplements, food additives substances, enzymes, micro-organisms, fish and fish products, water, cocoa and cocoa products, tea and tea products, coffee and coffee products, oil seed, spices and seasonings, foods for special nutrition, starch and starch products, ready meals) are among the products that can obtain halal certificate according to the halal conformity certification model ([www.tse.org.tr](http://www.tse.org.tr)).

Religion can be described as the whole of Allah's commands and commandments in the form of judgments towards people (Öztürk, 1989: 23); the belief system clearly stating how people had better act in the world they reside in (Sheth and Mittal, 2004: 65); a system where inhuman, creation-centered beliefs, worships and other rituals merge (Yapıcı, 2007: 9); the whole of rules granting human life an aim and system (Kartopu, 2013: 636). While the acceptance of any religion or any belief system and living by that religion or belief system is expressed as religiosity; the person realizing or trying to realize this life is called as religious (Karakaya, 2008: 24).

The products and services, consumed by consumers, could change depending on their religiosity level. The impact of religiosity can change relying on the product range. While the level of religiosity is low in some products and services, it may be highly influential in other products and services. For instance, the level of religiosity of consumers when buying chocolates and shirts can change. When buying products, not containing alcohol and forbidden substances, are given preference, parallel precision may not be indicated while buying shirts (Ördek, 2017: 10).

There appears an important relationship between people's religiosity levels and their halal product choices. It is inferred that the higher the level of religiosity of the person is, the higher the anxiety of consuming halal is experienced (Soesilowati, 2010: 153).

Previous studies indicate that Muslims with higher religiosity display halal awareness and are looking for products compensating their needs while purchasing halal food products with the logo of –halal, therefore (Shafie and Othman, 2006).

Consumers' orientation towards religiosity could change according to their personality characteristics. For example, Şentepe and Güven (2015) analyzed the relationships between religiosity and religious tendency in their research with undergraduate students studying at the university. According to the study, significant relationships were determined between some personality characteristics and religiosity and religious orientation dimensions.

Studies so as to gauge religiosity have caused to the spring of distinct approaches for the concept of religiosity in the long run. The discussions in these works center upon the dimensions of religiosity. There appear those stating that religiosity is one-dimensional, apart from those claiming it to be multi-dimensional on the grounds that not a single agreed and embraced approach on the dimensions of religiosity is taken as truth (Mokhlis, 2009: 77). Different inventories were thus evolved in line with religious views (Kıraç, 2007: 9).

Religiosity measurement studies commenced in the 1940s. Nonetheless, the subject has been fleshed out with field research using advanced measurement techniques since the 1960s (Onay, 2004). The studies evaluating religiosity have achieved great impulse and the scales, those especially cultivated by Allport and Ross and Glock and Stark have begun to be employed efficiently in this area since the 1980s both in the West and in Turkey (Mehmedoğlu, 2006). In this regard, it was the scale of



Allport and Ross, commonly employed in researches in the West (Mehmedoğlu, 2006). This scale enabled many contributions to studies in the field of religion and psychology (Gürses, 2010).

The Religious Orientation Scale, developed by Allport and Ross (1967), are made up of 12 extrinsic and 9 intrinsic items. The scale tries to determine the degree of religious beliefs and values internalized by the individual.

The scale of religious orientation does not have adequate reliability in view of its applicability in the field of marketing and consumer studies. The scale was produced for Christians and Jews and this is the deficient side of the scale (Mokhlis, 2009: 77). The religious orientation scale evaluates the religious beliefs and values individuals embrace and perform. Though the scale is bipolar with the inclusion of intrinsic and extrinsic, it is regarded as one single dimension. In this context, Allport and Ross (1967) redefined the scale to develop two different scales: intrinsic orientation, and extrinsic orientation.

Religious orientation is defined as attitudes towards religion and religious implementations (Harlak, 2014). Whereas intrinsic orientation refers to a mature form of religious emotion serving as the main motivation and stating the lifestyle of the individual, extrinsic orientation accredits to immature belief in succeeding selfish targets (Tiliopoulos et al. 2007).

For intrinsic oriented individuals, religion is accepted as a system of values which grants meaning to all their lives; consequently, the individual could incline to sustain his/her daily life in line with his/her religion (Donahue, 1985). Individuals with this tendency could struggle to blend their less important needs, as far as possible, with their religious beliefs and customs. They strive to absorb their beliefs, as well. They behave aligned with their religious beliefs and values enough to immolate themselves. Intensive personal beliefs are vital for intrinsically oriented religious people, and religion does bear no value to them socially. In this context, Allport and Ross (1967) asserts that intrinsic orientation conveys a substantial relationship with being uniting and connective, decent, ripe and preconceived.

Religion is utilized by the individual to function as a tool in the extrinsic orientation. Religion appears as a factor used in the service of the individual to enable benefit and weal for extrinsically oriented religious people. Moreover, religious duties, commands and prayers are among the most crucial practices for reaching worldly targets. Still, in extrinsic oriented religiosity, religion is pinched from fragmentation and decomposition due to the personal requests and longings of the individual rather than participating in the life of the religious people. That is, religious activities could not appear in all areas of extrinsically oriented religious people's life cycles (Fuller, 1994: 115-116).

Religious people, extrinsic orientation of which reigns, use religion to obtain their non-religious targets. The appetite to seem religious stands on extrinsic values and beliefs which are social, instrumental, and self-interested. For extrinsically oriented religious people, religion serves as a tool to gain such goals as obtaining status, ensuring security, validating himself/herself, having wealth and reputation, having property and place, and taking part in a powerful group (Cirhinlioğlu, 2010). That is, religion is regarded as a tool for extrinsically oriented people to have security, ease, esteem and social aid (Herek, 1987: 34).

### **3. DATA AND METHODOLOGY**

The main purpose of this study is to determine the relationship between the halal certificate perceptions of consumers and their religious orientations. Furthermore, the following sub-goals were also wanted to be achieved in the study:

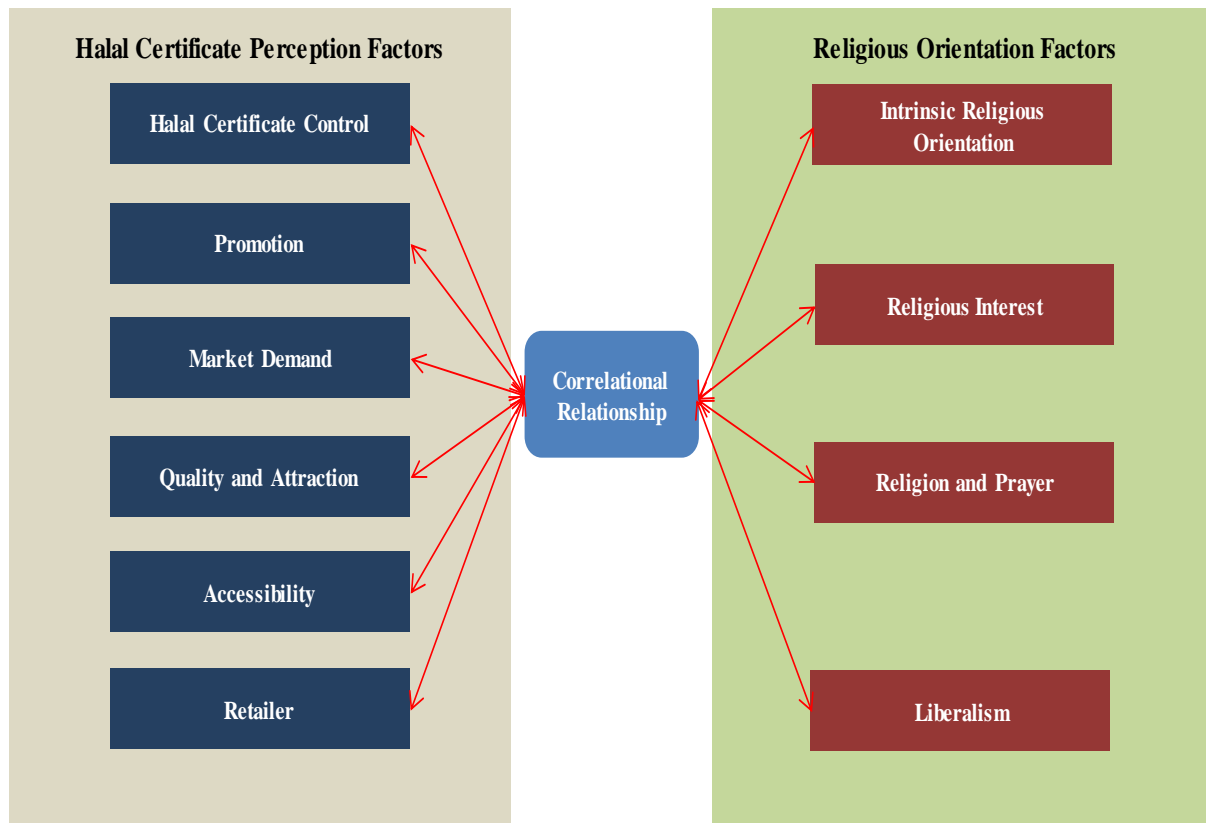
- To determine the halal certificate perceptions of consumers.
- To determine the religious orientation of consumers.

In this study, whereas the halal certificate perceptions of the consumers were tried to be determined with the scale developed by Dali et al. (2008), the religious orientations of them with the scale developed by Allport and Ross (1967).

In 2019, by reaching primary sources via face-to-face survey technique, the data was collected from the participants living in Isparta and Burdur city centers. Owing to the existence of time and cost constraints in reaching all individuals, a survey was conducted based on the generally accepted number of 384 (Anderson et al. 2011: 326). Although the sample was determined as 384, data was picked from more than 384 participants to raise the reliability and generalizability of the analysis results. The collected questionnaires are contemplated to bear the ability to represent the sample.

A descriptive research model was used in the study. In addition, factor analysis, reliability test, KMO tests and correlation analysis were conducted. The relationship between the halal certificate perceptions of consumers, and their religious orientations was tried to be determined according to the research model.

Figure 1: Research Model



Research hypotheses were hypothesized within the model framework and commented based on correlation analysis. (See Table.8).

Correlation analysis was utilized to test the research hypotheses. As a result of correlation analysis, it was tried to determine whether there is a relationship between halal certificate perception dimensions of consumers and their religious orientation dimensions. The relationships between the variables were examined with the help of the correlation analysis. It was determined that there were bilateral positive relationships among variables at the significance levels of  $p < 0.01$  and  $0.05$ , and that there was no statistically significant relationship ( $p > 0.05$ ) among some variables. The test results of the research hypotheses are listed below.

#### 4. FINDINGS

There appear 285 male and 270 female participants in the study. Concerning the ages of the participants in the study, it seems that the younger ones make up the majority. It was seen that the participants of middle aged and the older ones were reluctant to respond questions on halal while conducting the survey. When the marital status of the participants is taken into consideration, it is seen that 54% of the participants are single and 46% are married.

When looking the education level of the participants, it is observed the participants, who are undergraduates (37%) and postgraduates/doctorates (23%), appear at the majority. Concerning the educational level of the participants, it is apparent that the lowest group is the primary school graduates (6%). The reason for this is that several survey questions were found difficult to be replied. When the income levels of the participants are studied, it is clear that there seem equal participants from almost all income groups. When the occupations of the participants are viewed, it is seen that the student group with 26% and the officer group with 25% ensured the highest participation.

**Table 1: Socio-Demographic Characteristics of Consumers**

Gender	f	%	Marital Status	f	%
Male	285	51.1	Single	287	54.4
Female	270	48.4	Married	256	45.9
Unanswered	3	0.5	Unanswered	15	2.7
<b>Total</b>	<b>558</b>	<b>100.0</b>	<b>Total</b>	<b>558</b>	<b>100.0</b>
Education Level	f	%	Income	f	%
Primary Education	32	5.7	500 ₺ and below	105	18.8
Highschool	100	17.9	501– 1500 ₺	121	21.7
Associate Degree	85	15.2	1501– 2500 ₺	105	18.8
Undergraduate	207	37.1	2501– 5000 ₺	139	24.9
Postgraduate or Doctorate	130	23.3	5001 ₺ and above	69	12.4
Unanswered	4	0.7	Unanswered	19	3.4
<b>Total</b>	<b>558</b>	<b>100.0</b>	<b>Total</b>	<b>558</b>	<b>100.0</b>
Occupation	f	%	Age	f	%
Student	146	26.2	18 – 27 years	221	39.6
Officer	137	24.6	28 – 35 years	126	22.6
Worker	55	9.9	36 – 43 years	88	15.8
Artisan	71	12.7	44 – 51 years	56	10.0
Self-employment	34	6.1	52 and above	63	11.3
Housewife	24	4.3	Unanswered	4	0.7
Not working	20	3.6	Total	558	100
Other	66	11.9			
Unanswered	5	0.7			
<b>Total</b>	<b>558</b>	<b>100.0</b>			

The average values and standard deviations of the items in the scale are given in Table 2. In this context, the “halal certificate and halal certificate control by the authorized units and severe punishments for those who mislead and deceive the consumer about halal products” were evaluated as important issues by the participants. However, it was revealed that advertising of halal products through mass media is not very important for the participants. This information is especially important for advertisers and marketers. Likewise, it may be beneficial to review the places of halal product supply for the participants, as there are different opinions among the participants regarding the supply locations of halal products. This is because the participants do not tend to buy halal products from halal product supply places like Fast-Food restaurants and grocery stores.

**Table 2: Average and Standard Deviation Values of Items Related to Perception of Halal Certificate**

	Ort.	SS
A1 I buy halal products through advertisements in newspapers.	2,1921	1,15245
A2 I buy halal products through radio and internet advertisements.	2,2352	1,14127
A3 I buy halal products through brochures and flyers.	2,1831	1,12150
A4 I buy halal products through television advertisements.	2,3550	1,21444
A5 I buy halal products with the recommendations of my family and friends.	3,2176	1,35079
A6 I buy halal products from street and peasant markets.	3,0395	1,35121
A7 I buy halal products from fast-food restaurants.	1,9135	1,08306
A8 I always buy halal products from the restaurants I shop.	2,6595	1,35732
A9 I buy halal products from grocery stores.	2,6126	1,25295
A10 I buy halal products from supermarkets.	3,2948	1,25178
A11 I buy halal products from Shopping Malls (Big Shopping Centers).	3,1805	1,24121
A12 I buy halal products from places close to my workplace.	2,6486	1,26220
A13 Halal products in the markets are of good quality.	2,9585	1,15055
A14 Halal products in the markets are suitable for the consumer's wishes and taste.	3,0307	1,11842
A15 The packaging of halal products in the markets is attractive.	2,6203	1,07529
A16 I think that halal-certified products are of higher quality.	3,1570	1,18561
A17 Packaging of halal products on the market is suitable for present packaging	3,1728	1,02972

processes.		
A18 All products offered to consumers must be halal.	4,0252	1,20142
A19 Halal-certified products must be constantly checked by authorized units.	4,3242	1,06454
A20 Businesses with halal certificate should receive severe penalties for deceiving the consumer.	4,4371	1,00162
A21 Halal products must have a warranty certificate.	4,3058	1,03977
A22 Halal-certified products are suitable for global markets.	3,5642	1,16716
A23 Products sold in Turkey are required to have a halal certificate.	4,0324	1,22395
A24 I buy halal products especially when they come onto the market.	2,9872	1,19680
A25 Halal-certified products are generally more expensive than products without halal certificate.	3,5469	1,15779
A26 I think low priced products are poor quality.	3,1960	1,17912
A27 After trying the sample of Halal products, I buy it.	3,1494	1,12353
A28 Price is the main determinant in my choice of halal products.	2,9495	1,18701
A29 I buy halal products if they have a promotion.	2,7874	1,19030
A30 I will buy halal products if they are on sale.	3,0722	1,22446
A31 The demand for halal products affects the price of halal products.	3,6155	1,16077
A32 It may be more attractive if other services are offered alongside halal products.	3,3676	1,16121
A33 Halal products may be cheaper if sold in supermarkets.	3,2468	1,16908
A34 Halal products may be cheaper if produced by local producers.	3,4763	1,17616
A35 Local producers selling halal products are more sympathetic to discounts than supermarkets are.	3,3848	1,13813
A36 Halal product certificate should only be issued by the government.	4,0690	1,18120
A37 Halal products are for Muslims only.	2,9532	1,50137
A38 The sales prices of halal products in different markets may vary.	3,5794	1,08166
A39 I think halal products are prepared in healthier environments.	3,4108	1,14817
A40 I think it is difficult to find halal-certified product.	3,4083	1,22461

The average values and standard deviations of the items in the religious orientation scale are given in Table 3. In this context, the highest mean values for the participants appeared in the Intrinsic Religious Orientation dimension, while the lowest average values appeared in the Extrinsic Religious Orientation dimension.

**Table 3: Average and Standard Deviation Values of Items Related to Religious Orientation**

	Ort.	SS
B1 It is particularly substantial for me to take time for religious practices.	3,9289	1,11288
B2 I keep going to places of worship if there is not a compelling reason.	3,6245	1,13159
B3 I desire to convey my faith to all areas of my life.	3,8656	1,11236
B4 Religion is especially vital to me as it replies many questions concerning the meaning of life.	4,0692	1,06481
B5 I frequently sense the presence of God or a holy being strongly.	4,2945	1,01389
B6 I read written works on my faith.	3,7688	1,16377
B7 The aim of participating a religious group is to raise my religious knowledge rather than creating social friendship.	3,3241	1,37217
B8 My religious belief states my approach to life.	3,8775	1,18104
B9 The prayers I pray alone are more purposeful and candid.	4,3419	1,00873
B10 I rely on my religion, yet there appear many more substantial things in my life.	2,4644	1,36568
B11 It is not significant to what I believe in so long as I lead a moral life.	2,4743	1,46387
B12 The primary aim of praying is to ease and preservation.	3,3300	1,29881
B13 Religious places are the most significant places for building good social relations.	3,0613	1,30581
B14 The greatest advantage of religion is the relief it supplies whenever I feel upset and whenever trouble arises.	3,2174	1,33059
B15 I pray because I am mostly instructed to pray.	2,2885	1,24747
B16 I do not desire religious thoughts to influence my daily work although I am a religious person.	2,6996	2,30640

B17 The main reason I am related to religion is that religious places ensure a profound social activity environment.	2,0968	1,26041
B18 Sometimes I think my religious belief are essential to mediate to sustain my social and economic position.	1,9664	1,23515
B19 One of the reasons for going to religious places is that it aids me to be a part of society.	2,3261	1,35208
B20 The goal of prayer is to ensure a cheerful and comfortable life.	3,8755	1,20819
B21 Religion is a life-balancing factor like friendship, citizenship and other loyalties.	3,9862	1,21452

#### 4.1. Findings Related to Reliability Analysis

Cronbach's Alpha reliability was employed in the reliability analysis. The reliability coefficient (Cronbach's Alpha) of 0.60 and higher is generally accepted sufficient for the reliability of the test scores. The similarity of the features in the test items and the participatory behavior in the sample raise the reliability of the test. (Gegez, 2014: 184).

According to Table 4; halal certificate perception scale is at .936 level; religious orientation scale, however, is seen to have reliability values at the level of .835. When the Cronbach's Alpha values are taken into consideration, reliability is provided. There appears no problem in continuing the study in line with the obtained results, therefore.

**Table 4: Reliability Values of the Scales Used in the Survey Study**

	Cronbach's Alpha	Number of Items
<b>Halal Certificate Perception</b>	.936	40
<b>Religious Orientation</b>	.835	21

#### 4.2. Factor Analysis Related to Consumers' Perceptions of Halal Certificate

Factor analysis results of halal certificate perceptions of consumers are shown in Table 5. There are a total of 40 items developed for purchasing styles. However, 28 items were used in factor analysis. 12 items were excluded from factor analysis because their factor loadings were less than 0.45. Because it is stated that a certain item collected under a factor must be above a certain value in order to remain in the scale. It is evaluated that an item with a value above 0.45-factor load may remain on the scale (Büyüköztürk, 2004: 188). Out of 28 items subjected to factor analysis, 6 factors were identified. The 6 factors explain 65.429% of the total variance. In the analysis, the KMO test value was 0.901, which was found to be good in this sample, and the fact that Bartlett's test value was 0.000 ( $p < 0.05$ ) means that the data has a normal distribution. (See Table 6.)

The emerged factors according to the items they contained were named as "Halal Certificate Control", "Promotion", "Market Demand", "Quality and Attraction", "Accessibility", "Retailers".<sup>9</sup>

**Table 5: Factor Analysis Related to Consumers' Perception of Halal Certificate Dimensions**

	Question	Item	Factor
Halal Certificate Control	A19	Halal-certified products must be constantly checked by the authorized units.	.869
	A20	Businesses with halal certificate should receive severe penalties for deceiving the consumer.	.841
	A21	Halal products must have a warranty certificate.	.784
	A18	All products offered to consumers must be halal.	.727
	A36	Halal product certificate should only be issued by the government.	.700
	A23	Products sold in Turkey are required to have a halal certificate.	.666
	A38	The sales prices of halal products in different markets may vary.	.500
	A40	I think it is difficult to find halal-certified product.	.457
Promotion	A2	I buy halal products through radio and internet advertisements.	.904
	A1	I buy halal products through advertisements in newspapers.	.866
	A3	I buy halal products through brochures and flyers.	.848
	A4	I buy halal products through television advertisements.	.781
	A7	I buy halal products from fast-food restaurants.	.539

<sup>9</sup> For further information regarding the subject, see Ferdi Akbiyik, Helal Gıda ve Tüketici Davranışları Halal Sertifika Algısının Satın Alma Tarzıyla İlişkisi, (2020) (A). Konya, Çizgi Kitabevi.

Market Demand	A30	I will buy halal products if they are on sale.	.809
	A29	I buy halal products if they have a promotion.	.758
	A28	Price is the main determinant in my choice of halal products.	.735
	A32	It may be more attractive if other services are offered alongside halal products.	.670
	A31	The demand for halal products affects the price of halal products.	.599
	A33	Halal products may be cheaper if sold in supermarkets.	.524
Quality and Attraction	A14	Halal products in the markets are suitable for the consumer's wishes and taste.	.819
	A13	Halal products in the markets are of good quality.	.811
	A15	The packaging of halal products in the markets is attractive.	.689
	A16	I think that halal-certified products are of higher quality.	.607
	A17	Packaging of halal products on the market is suitable for present packaging processes.	.556
Accessibility	A11	I buy halal products from Shopping Malls (Big Shopping Centers).	.826
	A10	I buy halal products from supermarkets.	.814
Retailer	A8	I always buy halal products from the restaurants I shop.	.794
	A9	I buy halal products from grocery stores.	.768

Values of halal certificate perception factors were given in Table 6. In Table six, there seem factor names, variable numbers, cronbach alfa values, explained variance, eigenvalues, KMO test score and bartlett's test of sphericity scores. The 6 factors declare 65.429% of the total variance. In the analysis, the KMO test value is 0.901, inferring that the sample is decent; Bartlett's test value is 0.000 ( $p < 0.05$ ) standing that the data bears a normal distribution. In Table 6, internal consistency (Cronbach's Alpha) values of factors are given. As a result of the analysis, Cronbach's Alpha values are indicated in the Table 6. It is clear that the mentioned values are at an acceptable level.

**Table 6: Values of Halal Certificate Perception Factors**

Factors	Variable Number	Cronbach Alfa	Explained Variance	Eigenvalues
Halal Certificate Control	8	.871	30.696	8.595
Promotion	5	.875	13.296	3.723
Market Demand	4	.855	7.480	2.094
Quality and Attraction	3	.880	5.912	1.655
Accessibility	5	.739	4.150	1.162
Retailers	3	.785	3.895	1.090
Total Explained Variance		65.429 %		
Cronbach Alfa		0.936		
KMO Test		.901		
Bartlett's Test of Sphericity		X2: 7649.178; Sig:0.000		

#### 4.3. Factor Analysis on the Determination of the Religious Orientation of Consumers

In Table 7, the emerged factors to the items they contained were named as "Intrinsic Religious Orientation", "Religious Interest", "Religion and Prayer" and "Liberalism", according to the factor analysis.<sup>10</sup>

<sup>10</sup> For further information regarding the subject, see Ferdi Akbiyik, "A Research on the Determination of Religious Orientations of Consumers". *Yönetim, Ekonomi ve Pazarlama Araştırmaları Dergisi*, (2020) (B). 4(3):139-151.

**Table 7: Factor Analysis Related to Determination of Religious Orientations of Consumers**

	Question	Item	Factor
Intrinsic Religious Orientation	D4	Religion is especially vital to me as it replies to many questions concerning the meaning of life.	.867
	D3	I desire to convey my faith to all areas of my life.	.831
	D1	It is particularly substantial for me to spare time for religious practices.	.817
	D5	I frequently sense the presence of God or a holy being strongly.	.799
	D8	My religious belief states my approach to life.	.797
	D2	I keep going to places of worship if there is not a compelling reason.	.758
	D6	I read written works on my faith.	.729
	D7	The aim of participating in a religious group is to raise my religious knowledge rather than creating social friendships.	.607
	D9	The prayers I pray alone are more purposeful and candid.	.560
Religious Interest	D17	The main reason I am related to religion is that religious places ensure a profound social activity environment.	.831
	D19	One of the reasons for going to religious places is that it aids me to be a part of society.	.813
	D18	Sometimes I think my religious belief are essential to mediate to sustain my social and economic position.	.794
Religion and Prayer	D15	I pray because I am mostly instructed to pray.	.641
	D13	Religious places are the most significant places for building good social relations.	.524
	D20	The goal of prayer is to ensure a cheerful and comfortable life.	.783
	D12	The primary aim of praying is to ease and preservation.	.673
	D14	The greatest advantage of religion is the relief it supplies whenever I feel upset and whenever trouble arises.	.653
	D21	Religion is a life-balancing factor like friendship, citizenship and other loyalties.	.550
Liberalism	D10	I rely on my religion, yet there appear many more substantial things in my life.	.690
	D11	It is not significant to what I believe in so long as I lead a moral life.	.643
	D16	I do not desire religious thoughts to influence my daily work although I am a religious person.	.616

In this study, the factor analysis results of religious orientation are given in Table 8. The 4 factors declare 61.985% of the total variance. In the analysis, the KMO test value is 0.904, inferring that the sample is decent; Bartlett's test value is 0.000 ( $p < 0.05$ ) standing that the data bears a normal distribution. In Table 8, internal consistency (Cronbach's Alpha) values of factors are given. As a result of the analysis, Cronbach's Alpha values are indicated in the Table 8. It is clear that the mentioned values are at an acceptable level.

**Table 8: Values of Religious Orientation Factors**

Factors	Variable Number	Cronbach Alfa	Explained Variance	Eigenvalues
Intrinsic Religious Orientation	9	.909	27.193	6.479
Religious Interest	3	.826	15.403	4.001
Religion and Prayer	6	.705	10.303	1.445
Liberalism	3	.675	9.086	1.091
Total Explained Variance		61.985%		
Cronbach Alfa		0.850		
KMO Test		.904		
Bartlett's Test of Sphericity		X2: 5343.497; Sig:0.000		

#### 4.4. Testing of Research Hypotheses

Correlation analysis was utilized to test the research hypotheses. As a result of correlation analysis, it was tried to determine whether there is a relationship between halal certificate perception dimensions of consumers and their religious orientation dimensions.

**Table 9: Correlation Analysis Table Between Purchasing Styles Dimensions and Religious Orientation Dimensions**

		Intrinsic Religious Orientation	Religious Interest	Religion and Prayer	Liberalism
<b>Halal Certificate Control</b>	R	.582**	.018	.278**	-.190**
	P	.000	.682	.000	.000
<b>Promotion</b>	R	.263**	.408**	.195**	.063
	P	.000	.000	.000	.147
<b>Market Demand</b>	R	.307**	.285**	.335**	.057
	P	.000	.000	.000	.195
<b>Quality and Attraction</b>	R	.468**	.313**	.345**	-.097*
	P	.000	.000	.000	.027
<b>Accessibility</b>	R	.328**	.200**	.294**	-.083
	P	.000	.000	.000	.055
<b>Retailer</b>	R	.219**	.313**	.185**	.122*
	P	.000	.000	.000	.005

\*\* . Correlation significant is meaningful at the level of the 0.01 (2-tailed)

\* . Correlation significant meaningful at the level of the 0.05 (2-tailed)

The relationships between the variables were examined with the help of the correlation analysis. It was determined that there were bilateral positive relationships among variables at the significance levels of  $p < 0.01$  and  $0.05$ , and that there was no statistically significant relationship ( $p > 0.05$ ) among some variables. The test results of the research hypotheses are listed below.

Correlation analysis was performed to determine the relationship between halal certificate dimensions and religious orientation ones. When minding at the correlation coefficient interpretation between halal certificate perception dimensions and religious orientation ones (Arslantürk and Arslantürk, 2010: 232, Sungur, 2010: 117), it can be inferred that there are positive, significant and weak relationships among many dimensions. While 20 of the hypotheses were accepted, 4 of them were rejected.

**Table 10: Research Hypotheses and Results**

HYPOTHESES	TYPE OF ANALYSIS	p<0.05	p>0.05	RESULT
H1: There is a significant relationship between the halal certificate control dimension and the intrinsic Religious orientation dimension of the participants.	Correlation		0.000 (r=.582**)	ACCE PTED
H2: There is a significant relationship between the halal certificate control dimension and the religious interest dimension of the participants.	Correlation		0.682	REJEC TED



H3: There is a significant relationship between the halal certificate control dimension and the religion and prayer dimension of the participants.	Correlation	0.000 (r=.278**)	ACCE PTED
H4: There is a significant relationship between the halal certificate control dimension and the liberalism dimension of the participants.	Correlation	0.000 (r=-.190*)	ACCE PTED
H5: There is a significant relationship between the promotion dimension and the intrinsic religious orientation of the participants.	Correlation	0.000 (r=.263**)	ACCE PTED
H6: There is a significant relationship between the promotion dimension and the religious interest dimension of the participants.	Correlation	0.000 (r=.408**)	ACCE PTED
H7: There is a significant relationship between the promotion dimension and the religion and prayer dimension of the participants.	Correlation	0.000 (r=.195**)	ACCE PTED
H8: There is a significant relationship between the promotion dimension and the liberalism dimension of the participants.	Correlation	0.147	REJEC TED
H9: There is a significant relationship between the market demand dimension and the intrinsic religious orientation dimension of the participants.	Correlation	0.000 (r=.307**)	ACCE PTED
H10: There is a significant relationship between the market demand dimension and the religious interest dimension of the participants.	Correlation	0.000 (r=.285**)	ACCE PTED
H11: There is a significant relationship between market demand dimension and religion and prayer dimension of the participants.	Correlation	0.000 (r=.335**)	ACCE PTED
H12: There is a significant relationship between the market demand dimension and the liberalism dimension of the participants.	Correlation	0.195	REJEC TED
H13: There is a significant relationship between the quality and attraction dimension and the intrinsic religious orientation of the participants.	Correlation	0.000 (r=.307**)	ACCE PTED
H14: There is a significant relationship between the quality and attraction dimension and the religious interest dimension of the participants.	Correlation	0.000 (r=.285**)	ACCE PTED
H15: There is a significant relationship between the quality and attraction dimension and the religion and prayer dimension of the participants.	Correlation	0.000 (r=.335**)	ACCE PTED
H16: There is a significant relationship between the quality and attraction dimension and the liberalism dimension of the participants.	Correlation	0.027 (r=-.097*)	ACCE PTED
H17: There is a significant relationship between the accessibility dimension and the intrinsic religious orientation dimension of the participants.	Correlation	0.000 (r=.328**)	ACCE PTED
H18: There is a significant relationship between the accessibility dimension and the religious interest dimension of the participants.	Correlation	0.000 (r=.200**)	ACCE PTED
H19: There is a significant relationship between the accessibility dimension and the religion and prayer dimension of the participants.	Correlation	0.000 (r=.294**)	ACCE PTED

H20: There is a significant relationship between the accessibility dimension and the liberalism dimension of the participants.	Correlation	0.055	REJECTED
H21: There is a significant relationship between the retailer dimension and the intrinsic religious orientation dimension of the participants.	Correlation	0.001 ( $r=.219^{**}$ )	ACCEPTED
H22: There is a significant relationship between the retailer dimension and the religious interest dimension of the participants.	Correlation	0.000 ( $r=.313^{**}$ )	ACCEPTED
H23: There is a significant relationship between the retailer dimension and the religion and prayer dimension of the participants.	Correlation	0.000 ( $r=.185^{**}$ )	ACCEPTED
H24: There is a significant relationship between the retailer dimension and the liberalism dimension of the participants.	Correlation	0.005 ( $r=.122^*$ )	ACCEPTED

## 5. CONCLUSION AND RECOMMENDATIONS

Statistically significant relationships between consumers' halal certificate perceptions and their religious orientations were determined in the study. Halal certificate perceptions and religious orientations of consumers are tried to be determined by using quantitative analysis techniques with scales whose reliability and validity are proven in the literature.

Factor analysis was performed on the perceptions of halal certificate dimensions of consumers and six factor dimensions were found. In this context, the resulting factor dimensions are named as Halal Certificate and Control, Promotion, Market Demand, Quality and Attraction, Accessibility and Retailer, respectively. In the study conducted by Akbiyik and Eroğlu in 2014, some dimensions with low reliability levels such as Product Samples and Halal Certificate for Muslim Firms, which appeared in the original scale, were not detected. They found six factors regarding the subject. Likewise, Tatlı et al. (2017) conducted a study with 400 household heads in Bingöl province, and 6 different factors were identified. These factors are; certification, health, promotion, reliability, price and supply. Along with the mentioned studies, there are many studies in Turkey and in the world to determine consumers' perceptions and preferences for halal certificate and halal products (Ahmed, 2008; Alam and Sayuti, 2011; Salman and Sidiq, 2011; Kurtoğlu and Çiçek, 2013; Afendi et al. 2014; Sülün Ergül, 2014; Kızgın and Özkan, 2014; Köleoğlu et al. 2016; Yasid et al. 2016; Akar Şahingöz and Onur, 2017; Boyraz et al. 2017; Yusoff and Adzharuddin, 2017; Memiş et al. 2018; Bashir et al. 2018; Akbiyik, 2020(a)).

In the study, it was revealed that advertising of halal products through mass media is not very important for the participants. This information is especially important for advertisers and marketers. Likewise, it may be beneficial to review the places where halal products are supplied, since different opinions arise among the participants regarding the supply locations of halal products. Because the participants are generally not inclined to purchase halal products from halal product supply locations such as grocery stores, supermarkets, shopping malls, fast food chains. Indeed, in the study conducted by Ahmed (2008), it was revealed that the majority of Muslim consumers in England do not trust large supermarkets for halal products.

Factor analysis related to religious orientation of consumers was conducted and four factor dimensions were found. In this context, the resulting factor dimensions are named as Intrinsic Religious Orientation, Religious Interest, Religion and Prayer and Liberalism, respectively. In the original scale (Allport and Ross, 1967), while factor dimensions were grouped into two groups (Intrinsic Religious Orientation and Extrinsic Religious Orientation), there appeared factor dimensions in this study.

When the average and standard deviation values of the items related to religious orientation are examined, the highest average value for the participants appeared in the Intrinsic Religious Orientation dimension (B9), while the lowest average value was observed in the Extrinsic Religious Orientation dimension (B18). As a matter of fact, there are studies with lower average responses given by consumers to extrinsic religiosity items compared to intrinsic religiosity items (Yener, 2014).

There are several empirical studies which measure religiosity in the world (Allport and Ross, 1967; McDaniel and Burnett, 1990; Hodgson, 1993; Sood and Nasu, 1995; King and Crowther, 2004;). In some studies, indicators such as belief in God, participation in religious worship and belonging to a religious group have been regarded as a sign of religiosity (Yapıcı, 2002); however, since 1960s, it has been alleged that religiosity had better be examined in a multi-dimensional way (Karaşahin, 2002).

The studies related to measuring religiosity in Turkey began in 1960 (Erkan, 2014: 127). Different types of religiosity were conducted in the studies. For example, Taplamacıoğlu (1962) divided religiosity into five groups in his study. These groups are; Non-pratiquants, Opportuniestes, Pratiquants, Pieux, Bigots. Günay (1999) especially states four different religiosities in his study. These are Traditional Public's Religiosity, Religiosity of the Elite, Secular Religiosity, Transitional Religiosity. In a study developed by Yapıcı (2002), four different types of Religiosity are addressed. These are, Liberal Religious, Conservative Religious, Dogmatic Religious, Fanatic Religious. Okumuş (2006) also sets apart religiosity as "pretentious religiosity" and "sincere religiosity" by developing only one typology.

Correlation analysis was conducted to determine the relationship between consumers' halal certificate perception dimensions and their religious orientation dimensions. In the study, a positive, significant and very weak relationship was observed among many dimensions.

It is seen that the dimension of Liberalism, which is one of the dimensions of Extrinsic Religious Orientation, does not have a significant relationship with some dimensions of halal certificate perception. Especially, there is no significant relationship between the dimensions of Promotion, Market Demand, Accessibility and the dimension of Liberalism. This result shows that the participants who position themselves as liberal in line with their expectations have no interest or low interest in halal-certified products.

In general, it is seen that the relationship between the dimensions of halal certificate perception and the dimensions of religious orientation is high except for the dimension of liberalism. This result is important in terms of revealing the relationship between the level of religiosity and the sensitivity of halal-certified products, which is one of the main objectives of this study. It can be said that as the level of religiousness increases, the use and sensitivity of halal-certified products may increase.

With this study, conducted to determine consumer trends in halal-certified products and religious orientations in Turkey, a number of recommendations can be made with the obtained results. For example, a nationwide awareness should be created on halal-certified products. Especially young consumers who are indifferent about halal food should be informed. However, studies should be made considering that the current perception on halal certificate is generally negative. In particular, it is important for the Presidency of Religious Affairs to make informative publications on this subject in order to a better understanding of the subject. Besides, it must be provided that halal-certified products should be diversified, the number of companies selling halal-certified products should be increased, and companies selling halal-certified products should raise awareness on this issue by using more prominent images and signs. In addition, existing halal-certified products should be priced in a way that is accessible to all consumers. Furthermore, businesses making halal production should definitely be encouraged. Last but not the least, it should be carried out by considering the expectations and demands of the consumer for halal-certified products and consumers' sensitivity to halal food should be taken into account.

With this humble study, managers and marketers can determine the halal certificate perceptions and religious orientations of consumers and act in this direction. Similarly, the existence of a relationship between consumers' perceptions of halal certificates and their religious orientations will make businesses knowledgeable about this issue. Clarifying the issues mentioned above will help to read the use of the halal certificate, which has been the popular subject of recent years.

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## THE IMPORTANCE OF TIMING OF INTERNATIONALIZATION: A LITERATURE REVIEW

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### ABSTRACT

**Purpose** - The objective of this study is to focus on the timing of internationalization for enterprises. Timing of entrance to international markets has an important role in terms of the strategies of the firm that are aiming to open up to different markets.

**Methodology** - The study is conducted using literature review and trying to make an indepth analysis about the importance of timing and internationalization process of companies.

**Findings**- Entering foreign markets and internationalization is very important for companies. The initiation of internationalization process is a critical decision especially related with the timing of entrance. There may be different consequences of entrance time for international markets. Those consequences may generate risks or opportunities for companies.

**Conclusion**- Timing of entrance to international markets has an important role in terms of the strategies of the firm that are aiming to open up to different markets. Sometimes businesses may have the advantage of entering earlier to the market and getting the advantage of being first mover by putting their internationalization strategies into practice earlier, but they may also face the risks of some unknown factors related to be the early entrant. On the other side when businesses prefer to enter international markets with a delay, even if it is less costly than entering the market first, it may be possible that this time the timing of entrance will not result in an advantageous market entry strategy. Therefore, in this study, the importance of the timing of entrance to international markets is tried to be emphasized with a literature research.

**Keywords:** Internationalization, international expansion, timing of internationalization, age at entry, speed of internationalization

**JEL Codes:** D25, F01, F20

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### 1. INTRODUCTION

Many businesses today seek to achieve various benefits along with internationalization. Regarding internationalization, the objectives of businesses include competing with their rivals, gaining a stronger position in the market, risk distribution, access to resources, meeting customer expectations and taking advantage of economies of scale etc. In addition to these factors, it is possible to mention many other different factors among the internationalization motivations of enterprises. However, in this context, various factors gain great importance for businesses. Such as, available resources, financial strength, employment structure, management structure, goals etc. are of great importance for achieving successful internationalization process. Besides, the importance of the timing of internationalization, which is one of the most important factors in the internationalization process of enterprises, is among the critical issues for multinational companies. Companies that are trying to improve their internationalization capabilities are expecting some important benefits by increasing their internationalization degree. But on the other side there may be some difficulties that some companies may face during the international expansion. For example, the costs associated with operating in foreign markets, difficulties in coordinating different operations in foreign countries, labor availability, communication problems, cultural differences or general uncertainties arising from unknown foreign market conditions may cause difficulties. In traditional approach, it is common to think that the learning process of the firm towards internationalization will take time. Nowadays, businesses can participate in internationalization processes very

quickly and can achieve significant gains in a very short time from their establishment, which is also related with the speed of internationalization.

There are many studies in literature about the internationalization processes of enterprises. In these studies, especially with the effect of today's intense competitive environment and due to globalization, the importance of internationalization is discussed with its various dimensions. There are different motivations for the enterprises who are planning to go foreign markets. Some companies decide to internationalize earlier than others, some companies are late internationalizers. In literature there are various empirical studies with different concluding remarks related with internationalization timing. Initiation of internationalization process and the age of the enterprises initial entrance to foreign markets may have important consequences. Companies entering international markets earlier can achieve various benefits, but also they may face various challenges. Therefore, when the studies about the timing of internationalization are examined in literature, it is possible to obtain very different approaches. At this point, many factors such as the internal dynamics of the enterprise, the position in the market and the managerial approaches gains great importance in the decision of early or late internationalization of companies.

## **2. INTERNATIONALIZATION STRATEGIES**

With globalization and decreasing barriers in trade, the opportunities of businesses to move and expand their activities outside their own countries is increased. Increasing international activities that enable businesses to open up to new markets has become the primary strategic goal for many businesses. With the acceleration of globalization in recent years, it is seen that many studies and researches have been conducted on internationalization. A significant portion of these studies deal with the factors that drive businesses to internationalization, or in other words, the benefits of internationalization strategies to businesses (Özbay and Taşel, 2020). Internationalization of companies is an important subject and there are various theories and researches which tries to make explanations about why and how firms decide to enter foreign markets. What motivates firms to go international markets and what are the important factors that effects the decision of the companies about their internationalization processes. Some of the important theories about internationalization are, the internalization theory (Buckley, 1976), the Uppsala model (Johanson and Vahlne, 1977), the eclectic theory (Dunning, 1980). There are different types of companies that can be involved in international markets. For example, rapidly internationalizing companies such as born global companies, international new ventures, multinational enterprises are having a very important role with their entrepreneurial vision and capabilities for explaining internationalization strategies (Zander et al., 2015).

Internationalization allows the companies to learn the growth process and how to grow. But on the other side, firms may face with uncertainties and risks that force them to adapt to its new environment through structural changes. Organizations creates new capabilities for international entrance by adapting new routines for market entrance and restructuring resource bases to support such activities (Sapienza et al., 2006). Creating affiliates in many different countries or having a deeper presence in fewer countries brings opportunities to access new sources of knowledge and to be involved in new learning processes. Access to new sources of knowledge and new learning opportunities leads to costs and benefits that can only differ in multinational depth and breadth (Castellani et al., 2017). Firms with more experience in international operations are expected to be better at incorporating new information into their organizational structures, which is very important for their new activities. Moreover, expansion into a new market or further expansion into existing markets may be less costly and less risky for an experienced MNE (Surdu and Narula, 2020). Historically, many multinational companies emerged with the development of large, mature and domestic firms. In addition to this, developments in technology and the increase in the number of experts with international business experience have created new foundations for multinational companies. Nowadays, with a certain capital and experienced staff they can conduct their business anywhere. It is possible to handle many jobs at the touch of a button and can do business anywhere when it is needed, and can travel to virtually anywhere in the world within a day. This easy use of low-cost communication and transportation technologies, increase the ability to explore and take advantage of business opportunities in multiple countries. Therefore, internationalization is possible not only for large, mature companies, but also for new startups. So it is possible to say that new startups may have limited resources, but they can also successfully compete in international markets (Oviatt & McDougall, 2005). The reason why young startups can be successful when entering foreign markets at an early age is that, their inexperience is an advantage because they learn fast in new foreign markets. (Clercq et al., 2012). As a new international venture it is very important to gain significant competitive advantage from getting resources and selling output in multiple countries from its inception. The distinguishing feature of these startups is that their origins are international, may have presence in multiple countries and have significant resource commitments. The focus here is not on their size but on the age of firms when they become international (Oviatt and McDougall, 2005).



Companies that are trying to improve their internationalization capabilities are expecting some important benefits by increasing their internationalization degree. Among the numerous benefits some of them can be given as; lower cost of inputs, benefits related with economies of scale, firm-specific and country specific assets, operational flexibility, increase access to knowledge and risk diversification by operating in different markets and reducing the effects of fluctuations (Geleilate et al., 2016).

Another important subject about internationalization is international knowledge. International knowledge plays an important role in terms of entering new international markets. International knowledge represents the learning capability of businesses for successfully entering new foreign markets. First of all, in order to be successful in internationalization, businesses need to know the foreign country well, the working styles of institutions, the companies operating in the domestic market and how they differ in order to operate in the international arena. Internationalization requires an important research and analysis process. In this sense, international knowledge constitutes a basic knowledge for entering new international markets (Fletcher et al., 2013). But on the other side there may be some difficulties that some companies may face during the international expansion. For example, the costs associated with operating in foreign markets, difficulties in coordinating different operations in foreign countries, labor availability, communication problems, cultural differences or general uncertainties arising from unknown foreign market conditions may cause difficulties (Geleilate et al., 2016).

### **2.1. Timing of Internationalization**

While internationalization has various advantages for the company, it is also possible for businesses to face some difficulties. Therefore, the timing of internationalization and the decision of expanding new international markets is an important decision for enterprises. Why do some enterprises move earlier but some others are late? These approaches can be handled within the framework of firm, entrepreneur and the market factors. There are three different approaches in this direction. Based on the literature and the strategic factors, the first approach is based on the firm's resource-based view that explains when and how they will go to foreign markets. Based on the literature, the second approach is related with the subject of entrepreneurship which analyses the incentive and behavior of the entrepreneurs and how these affect the strategy of the company (especially the timing of internationalization) and its posterior development. The third approach concentrate on the market factors such as competition or customer demand for a particular product or service and leverages the economy and strategy (Ciravegna et al., 2019).

The process theory of internationalization refers the international market entry process as an activity that takes place in the later stages of the company's life cycle and emphasizes that early internationalization may have negative consequences for the continuity of the firm. In contrast, researchers trying to explain the determinants of the early international activities of firms describe early internationalization as a catalyst for growth, especially for dynamic and technology-intensive industries (Sapienza et al., 2006). The timing of internationalization process can be defined as the time between the initial establishment of a company and the initiation of foreign operations (Kabongo and Okpara, 2019). There is an important link between the starting of the internationalization process and the age of the firm. Meschi et al. stated that time has two important dimensions. The first one is the initial internationalization time which is represented with the first expansion abroad or age at internationalization. The age of the firm at the time of first international expansion is an important factor, as it points out the beginning of the internationalization process. Second one is the pace of internationalization, which can be expressed as the number of countries or foreign markets that the firm enters in a certain period of time (Meschi et al., 2017). Age of initial internationalization can also affect the firm's performance. Some studies focus on the direct affects some studies focus on the indirect effects (Williams and Crook, 2021).

The decisions taken about the internationalization process of the company are related to the location, timing of the internationalization process and market entry strategies. In this context, it is very important to determine which products to produce, which customers will target, how the company will use its resources, what will be the optimum timing and how it will keep competitors away in line with the strategy that the company will determine in the direction of internationalization (Riviere and Suder, 2016).

Timing of internationalization is one of the primary factors in the internationalization process of enterprises. Time plays an important role in structuring and organizing changes that occur throughout the internationalization process, and also has a cyclical effect that initiates and drives the future changes (Meschi et al., 2017). Contractor et al. (2007) stated that in the internationalization process, businesses can be divided into three groups depending on their degree of internationalization: In the 1st phase, there are early internationalized companies, and companies that have just started their international expansion. Phase 2 includes mature internationalizers, firms that are well involved in the internationalization process and are currently benefiting from their positive sides on a global scale. Phase 3 includes highly internationalized firms, and there are some

companies that have grown considerably at this stage. At this stage, the benefits that businesses will gain with a higher rate of internationalization are lower than the additional costs of further expansion (Contractor et al., 2007).

In the early stages of international expansion, a firm can face with foreign obligations and some obstacles because of being new. Firms in the early stages of international expansion are usually young, small and probably have a low product range (Lu and Beamish, 2004). As young companies enter foreign markets, they face some uncertainties and risks that affect the learning and adaptation process (Sapienza et al., 2006). Experiential learning can reduce the costs associated with being new and foreign to the process of how to establish the business efficiently in the international market, as businesses expand in international markets. Besides, it takes advantage of businesses opening up to new markets, with some of the advantages that come with the increased geographic diversity and the development of new capabilities in international markets. Lu and Beamish (2004) stated that increased geographic coverage is the next stage in which the growth of the firm's profitability is associated. As the firm's network of foreign subsidiaries expands and the firm increases its operations in more and more countries, governance and coordination costs rise to the point where costs can again exceed the benefits of geographic diversification and moves to the next stage (Lu and Beamish, 2004).

The traditional internationalization process literature argues that the international expansion process of firms should occur more slowly and sequentially. Because, according to this approach, the need for companies to obtain information about foreign countries is of great importance and takes place gradually. In contrast, recent international entrepreneurship studies have suggested that many firms opened up to international markets much earlier and have an effective role in international competition by taking the advantage of market opportunities in foreign countries much earlier in firm's life cycle (Wu and Voss, 2015). The increase in the number of small firms internationalizing in the early stages of their life cycle has increased the interest in the early internationalization approach and the driving forces that lead to it. Early internationalization firms were often compared with a traditional approach similar to the Uppsala model, which represents a slower internationalization process (Ciravegna et al., 2019).

Early internationalizers enter to the foreign markets earlier or shortly after their founding. In general, internationalization is a dynamic process that requires significant resources to initiate and also to grow in existing and new markets. Because of being new and young, early internationalizers may have some difficulties in their initial internationalization process due to the limited availability of resources like financial capital, human resources etc. After entrance, early internationalizers also need additional resources to continue to grow and penetrate to new markets abroad (Bembom and Schwens, 2018). As well as competitive advantages the early and rapid internationalization approach is also related to the "international entrepreneurship" approach, which refers to the process of creatively exploring and evaluating opportunities outside the domestic markets of a company (Cavusgil and Knight, 2015). In literature, there are various studies on international entrepreneurship that emphasize the role of the entrepreneurs or managers as a catalyst for internationalization (Ciravegna et al., 2019).

Figure 1: Strategic Commitment to Internationalize

		Strategic Commitment to Internationalize	
		With Strategic Commitment	Without Strategic Commitment
Timing of Internationalization	Early Internationalization	<p><b>Strategic</b> Early Internationalizers</p> <ul style="list-style-type: none"> <li>•Committed to internationalize early and did</li> <li>•Intent and Early Action</li> </ul>	<p><b>Serendipitous</b> Internationalizers</p> <ul style="list-style-type: none"> <li>•Did not commit to internationalize early but did</li> <li>•No Intent but Early Action</li> </ul>
	Late Internationalization	<p><b>Persistent</b> Late Internationalizers</p> <ul style="list-style-type: none"> <li>•Committed to internationalize early but did it late</li> <li>•Intent but Late Action</li> </ul>	<p><b>Long-term</b> Internationalizers</p> <ul style="list-style-type: none"> <li>•Did not commit to internationalize early and did it late</li> <li>•No Intent but Late Action</li> </ul>

Source: (Wood et al., 2011)

As shown in figure 1 Wood et al. (2011) stated that, internationalizers are classified into two dimensions. In the first dimension, it reflects the founders' internationalization with strategic commitment. In the second dimension, it shows that internationalization is early or late in terms of time. Strategic early internationalizers are new initiatives that their founders decided to internationalize early from the start and decided to do so early. Serendipitous internationalizers refer to new initiatives that do not commit to early internationalization but still do so. For example, a new venture may internationalize early, towards unexpected demands from abroad rather than a planned market entry. Permanent late internationalizers are new initiatives that have a strategic commitment to early internationalization but do so late. For example, founders may lack of resources to commit to entry into a market until their new venture becomes more established. Finally, long-term internationalizers are new initiatives that do not have a strategic commitment to early internationalization but do so later in their life cycle. Long-term internationalizers can be distinguished from serendipitous internationalizers, persistent late internationalizers, by their lack of internationalization intentions and the late timing of their international entry (Wood et al., 2011).

Another important factor related with the entrance time to foreign markets is about the advantages and disadvantages of being first entering or late entering to the market. Timing of market entrance may have important effects on firm performance. A company that tends to open up to international markets in a favorable environment and aims to be the first to enter to the market can provide a significant first mover advantage (FMA) for the business. But at the same time, the leading strategy can sometimes be a risky strategy. Due to uncertainties associated with the market conditions, products and technology, it is unclear how fast the market potential will rise. On the other hand, although later entrance is less costly than being early entrant, there is a risk of not being successful in accessing the market because of not getting the first-mover advantage (temporary monopoly, scale economies, customer relations etc.) (Tuppura et al., 2008).

## **2.2. Speed of Internationalization**

In terms of internationalization strategy current researches place time at the core and the speed of international growth to the second place (Zucchella et al., 2007). Jones and Coviello (2005) stated that "...internationalization is a process, and therefore, by definition, internationalization behavior takes place over time, manifest in a time sequence in which events occur." (Jones and Coviello, 2005). Speed of the internationalization can be defined as the time lag between the establishment of a firm and the time its international operations is first started (Hsieh et al., 2019). Researchers introduced concepts such as speed to capture the phenomenon of early and rapid internationalization (Chetty et al., 2014). It is an important research area for the scholars. When the literature is examined, different results are obtained concerning the relationship between early internationalization and firm performance. Some studies find a positive relationship between early internationalization and firm performance, while some find a negative relationship or some do not find a meaningful relationship. One of the reasons for these contradictory results is that the effect of early internationalization on firm performance does not automatically occur and may depend on the firm's capacity to incorporate new knowledge and applications into its operations (Wu and Voss, 2015). Williams and Crook stated that "Earlier internationalization can stress firms with liabilities of foreignness at the same time as they must overcome liabilities of newness. Yet, despite these challenges, earlier entry taps into a key advantage of younger firms: the learning advantages of newness, which allows them to better assimilate new foreign knowledge. By utilizing such advantages, firms learn how to adapt the firm's resources and routines for different markets – that is, a capability for new market entry." (Williams and Crook, 2021).

There are various studies about the relation between speed of internationalization and firm performance which is of great interest (Jain et al., 2019; García-García, et al., 2017). There are three dimensions related with the speed of internationalization. The first dimension is about the time between the first realization of the opportunity and the first internationalization. Second dimension is how rapidly foreign market entrance is generated. The third dimension is how quickly the percentage of international sales increase. Cheng et al. stated that the number of companies seeking to participate in international business is rising with the expectation of faster internationalization strategy will make it easier for them to seize new opportunities and build first-mover advantages (Chetty et al., 2014). Therefore, the speed of internationalization becomes an important strategic decision for companies for expanding international markets (Cheng et al., 2020). García-García, et al., (2017) supported that the multinational enterprises that increase their speed of internationalization can get some knowledge-related benefits, which is an important source of competitive advantage for firms.

However, research on the speed of internationalization and its impact on MNE performance found that the lack of time at the disposal of rapidly internationalizing firms is the main constraint that makes it difficult for them to overcome the risks associated with internationalization (Jain et al., 2019). The risks associated with internationalization lead to an even more negative

approach by the fact that failure in an international business context can have serious negative consequences (Musteen et al., 2010). Therefore, in internationalization process, another factor that stands out for businesses is the risk approach. If an entrepreneur or a manager is more willing to take risks, they are more likely to internationalize early, even if barriers such as foreign obligations and outsidership exist. Therefore, at this point, the risk-taking attitude is related to the entrepreneurial orientation structure of the entrepreneur. In addition, risk taking in internationalization processes is concerned with the speed, scope and performance results of internationalization (Ciravegna et al., 2019). Traditional models view internationalization as a gradual and risk-reducing process. Firms devote resources to international operations when they have sufficient experience to reduce uncertainties, but since the accumulation of experience takes time, internationalization under the traditional approach represents a time consuming and therefore slow process. Recent studies argue that, in contrast to this situation, internationalization may occur faster (Hilmersson and Johanson, 2016).

There are several possible consequences that need to be considered regarding the possible outcomes or effects of the timing of internationalization. Some firms may move away from international markets or retreat into their domestic markets after an early foreign sell move. Some companies may internationalize immediately after they start, some of them not (Ciravegna et al., 2019). There are different motivations for the enterprises who are planning to go foreign markets. Some companies decide to internationalize earlier than others some companies are late internationalizers. In literature there are various empirical studies with different concluding remarks related with internationalization timing. Some studies emphasize that the timing of internationalization plays an important role by firm-level resources (internal and / or external, for example). While other studies on timing of internationalization focus on the background and characteristics of the entrepreneur, some studies point to the importance of technology factors, competition and identified opportunities (Ciravegna et al., 2019). Some studies stated that age at entry has a nontrivial influence on a firm's performance. It also carries a hidden benefit earlier internationalization may be able to offset performance decreases that result from increases in international intensity (Williams and Crook, 2021). It is seen that there are many different approaches in line with the results of the studies on the internationalization time. In this context, the timing of internationalization and the speed of internationalization is among the critical issues for businesses and to be analyzed with its various dimensions.

### **3. CONCLUSION**

With the acceleration of globalization in recent years, various researches have been conducted about internationalization. A significant portion of these studies address the factors that drive businesses to internationalization, or in other words, the benefits of internationalization strategies to businesses. Globalization and decreasing barriers in trade have increased the possibilities of businesses to move and expand their activities outside of their own countries. Increasing international activities that enable businesses to open up to new markets has become the main strategic goal for many businesses. Companies that are trying to improve their internationalization capabilities are expecting some important benefits such as economies of scale, lower cost of inputs, firm-specific and country specific assets, operational flexibility etc. by increasing their internationalization degree. But on the other side there may be some difficulties that some companies may face during the international expansion. For example, the costs associated with operating in foreign markets, difficulties in coordinating different operations in foreign countries, labor availability, communication problems, cultural differences or general uncertainties arising from unknown foreign market conditions may cause challenges for businesses.

Within this study, the timing of internationalization has been discussed based on literature review. With regard to internationalization, traditional approaches consider the international market entry process as an activity that takes place in the later stages of the company's life cycle and emphasize that early internationalization will not bring positive results for the company. In contrast, researchers trying to explain the determinants of early international activities of firms identify early internationalization as an important factor for growth, especially in dynamic and technology-intensive industries. There are several possible consequences that need to be considered regarding the possible outcomes or effects of the timing of internationalization. Therefore, in line with the results of the studies on timing of internationalization, it is seen that there are different approaches regarding the timing of entrance to foreign markets. In this context, decisions regarding the timing of internationalization generate an important issue for the strategic decisions of the company related with the internationalization strategies.

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## MEDIATING ROLE OF CONSUMERS' ATTITUDES TOWARDS CONTENT MARKETING PRACTICES ON THE RELATIONSHIP BETWEEN THE PERCEIVED UTILITIES AND THE CONTENT SHARING BEHAVIORS

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### ABSTRACT

**Purpose-** The aim of this research is to examine the mediating role of consumers' attitudes towards content marketing practices on the relationship between perceived utilities from these practices and content sharing behaviors. The secondary aim of the research is to expose the direct and indirect effects of the utilities perceived by social media users from the content marketing practices on their attitudes towards these contents and content sharing behaviors.

**Methodology -** The research included 529 respondents who have an account on any social media network. The data were collected by applying the online survey tool to those respondents selected using the convenience sampling method. The data obtained was tested with a PLS-SEM equality analysis using the Smart PLS 3.2.9 program

**Findings-** Based on the results of the analysis, it is seen that while both perceived economic utility and the perceived entertainment utility have direct effects on the attitude and the behavior, trust utility and the informative utility have direct affects only on attitude. However, it is seen that all utility variables have indirect effects on the behavior variable through the attitude variable

**Conclusion-** It was concluded that the attitude towards content marketing has a mediating effect on the relationship between perceived utilities of content marketing practices and content sharing behavior.

**Keywords:** Social media, content marketing, sharing behavior, perceived utility, attitudes.

**JEL Codes:** M30, M31, M37

## İÇERİK PAZARLAMASI UYGULAMALARINA YÖNELİK TUTUMLARIN ALGILANAN FAYDALAR İLE İÇERİK PAYLAŞIM DAVRANIŞLARI ARASINDAKİ ARACILIK ROLÜNÜN İNCELENMESİ

### ÖZET

**Amaç-** Bu araştırmanın amacı, tüketicilerin içerik pazarlaması uygulamalarına yönelik tutumlarının, bu uygulamalardan algılanan faydalar ile içerik paylaşım davranışları arasındaki ilişkide aracılık rolünün incelenmesidir. Sosyal medya kullanıcılarının işletmelerin kendilerine sundukları içerik pazarlaması faaliyetlerinden algıladıkları faydaların bu içeriklere yönelik tutuma ve içerik paylaşım davranışlarına olan doğrudan ve dolaylı etkilerinin ortaya konması ise çalışmanın ikincil amacını oluşturmaktadır.

**Yöntem-** Çalışmaya herhangi bir sosyal medya platformunda hesabı olan 529 kişi dâhil edilmiştir. Kolayda örnekleme yöntemi kullanılarak seçilen bu kişilere online anket yöntemi uygulanarak veriler toplanmıştır. Elde edilen veriler PLS-SEM eşitlik analiziyle Smart PLS 3.2.9 programı kullanılarak test edilmiştir.

**Bulgular-** Analiz sonuçlarına göre algılanan fayda değişkenlerinden maddi fayda ve eğlence faydasının hem tutum hem de davranış üzerinde doğrudan etkileri görülürken, güvenilirlik ve bilgilendirme faydalarının sadece tutum üzerinde doğrudan etkileri görülmektedir. Ancak tüm fayda değişkenlerinin davranış değişkeni üzerinde tutum değişkeni aracılığıyla dolaylı etkileri olduğu da görülmektedir

**Sonuç-** İçerik pazarlamasına yönelik tutumun içerik pazarlaması uygulamalarından algılanan faydalar ile içeriği paylaşım davranışı arasındaki ilişkide aracı etkiye sahip olduğu belirlenmiştir.

**Anahtar Kelimeler:** Sosyal medya, içerik pazarlaması, paylaşım davranışı, algılanan fayda, tutumlar.

**JEL Kodları:** M30, M31, M37

## 1. GİRİŞ

Popüler kültürün vazgeçilmez araçlarından birisi olan sosyal medya platformları, global anlamda sosyal akımların hızla yayıldığı ortak etkinlik alanlarıdır. İnternetin hayatımıza girmesiyle başlayan bu serüvende bilişim sistemlerindeki gelişmeler sayesinde internet entegrasyonlu mobil uygulamalar bireyler için farklı bir yaşam stiline kapılarını açarken, işletmeler için de yeni bir pazar alanı oluşturmuştur. Geleneksel pazarlama uygulamalarıyla tüketicisini elde tutmaya çalışan işletmelerin gelişen web uygulamalarının da etkisiyle ürün ve hizmet sunumları yapması artık kaçınılmaz hale gelmiştir. Ancak bu durum sadece web uygulamalarıyla ürün satma değil geleneksel ortam kadar zaman ve emek harcanması gereken bir pazar olarak yerini almaktadır. Bu öyle bir pazar ki, işletmeler viral dedikoduların hızla yayıldığı online sahada sadece ürün performans beklentilerini gerçekleştirmek için değil daha fazla kullanıcı ile duygusal bağ kurabilecek etkileşimli içerikler oluşturma yönünde rekabet etmektedirler. Bu anlamda yeni stratejik uygulama alanları gelişmekte ve işletmeleri bu yeniliklere adapte etmeye zorlamaktadır. Özellikle milenyum çocukları olarak değerlendirilen 1990 ve sonrası doğumlular için sosyal medya yemek içmek kadar kolay ve temel bir aktivite olup onlar için adaptasyonu oldukça basit oyun sahalarıdır. Bu açıdan bakıldığında çağın gerisinde kalacak işletmeler bu yeni nesil için artık tercih unsuru olamayacaktır.

Bu sosyal mecralar sadece eğlence paylaşımları yerleri değil aynı zamanda en etkili ürün ve marka araştırma kaynakları olarak da karşımıza çıkmaktadır. Tüketiciler ürünler ya da markalarla ilgili bilgi ve tecrübelerini sosyal medya kanalları aracılığıyla diğer kullanıcılarla paylaşmakta ve böylece bir fikir lideri ya da etkileyici kişilik olarak kitleleri beraberinde ikna edebilmektedirler. Bu paylaşımları takip eden kullanıcılar için ise bilmedikleri konularda ya da ihtiyaç duydukları alanlarda gerçek insan deneyimleriyle daha güvenilir bir bilgi kaynağı sağlanmış olunmaktadır. İşletmelere düşen görev ise, içerisinde ürün ve marka ile ilgili aranan bilgilerin dahil edildiği bilgilendirici, eğlendirici ve güvenilir içerikler hazırlayarak bu platformlara dahil olabilmektir.

Literatüre bakıldığında tüketicilerin satın alma karar verme süreçleri bir problem çözme süreci olarak tanımlanmaktadır. Ürün, marka ve satın alma noktaları çerçevesindeki çeşitlilik tüketicilerin halihazırda otomatik satın alımlarının dışındaki kıyasa dayalı satın alma davranışlarında mantıksal çözümü oldukça karmaşık bir karar mekanizması doğurmaktadır. Ürün ya da sektör ile ilgili deneysel bilgilerin tüketici zihnindeki yoksunluğunda ya da eksikliğinde bir dışsal bilgi arama süreci devreye girmektedir. Ürün gruplarına göre değişebilen bilgi ihtiyacının tatmin edilebilmesi adına birçok kaynak mevcuttur. Bunlar geleneksel ve elektronik bilgi kaynakları olabilmektedir. Mağazalar, satış temsilcileri, gazete, dergi, radyo, açık hava reklamları ve televizyon gibi kitle iletişim mecraları kadar online mecralardaki birtakım reklam ve iletişim mecraları da bilgi kaynakları olarak değerlendirilebilmektedir.

Newman ve Joseph (1977)'e göre tüketicilerin bu bilgi arama süreçlerinde etkili olabilecek bazı faktörler ışığında kendileri için en faydalı bilgi kaynaklarına doğru yönelmektedirler. Bu faktörler şu şekilde değerlendirilmektedir: 1) Maliyet, 2) Fiyat, stil, algılanan farklılık, algılanan risk, bilgi, deneyim, eğitim ve gelir gibi potansiyel karşılıklar, 3) Marka ya da mağaza tercihleriyle ilgili memnuniyet ya da bilgi edinme gibi satın alma stratejileri, 4) Ürünün aciliyeti, fiyat konusundaki hassasiyet, fırsat odaklı kampanyaların etkisi, tüketicinin ikamet yeri gibi durumsal değişkenler, 5) Kişisel değişkenler, 6) Tüketicinin evdeki rolü, sosyal sınıfı, meslek, yaş gibi demografik özellikleri içeren diğer değişkenler. Bu değişkenler yordamıyla yönlendirilmiş oldukları bilgi kaynaklarında aranan bilgilerin muhteviyatı ilgili mecranın faydalı bilgi kaynağı olarak değerlendirilmesine olanak tanımaktadır. Örneğin kişisel özellikler bakımından tüketicilerin alışveriş stilleri dikkate alındığında hedonik ya da fonksiyonel alışveriş odağına sahip tüketicilerin bir mecradan beklentileri de yine bu yönde gerçekleşmektedir. Yoğunlukla hedonik yani duygusal beklenti içerisinde alışveriş yapan tüketiciler birebir ya da yüz yüze kaynakları tercih edebilmektedirler. Çünkü onlar için dokunmak yani temas etmek ve bu hazcı tutum içerisindeki soyut unsurlar çok daha önemlidir. Dolayısıyla yüksek ölçüde hedonik alışveriş değerlerine sahip tüketiciler online alış veriş daha az faydalı ve daha çok riskli algılayabilmektedirler. Alışveriş sırasında satış temsilcileri ile doğrudan bir interaktivite yaşamadıklarından ve ürüne dokunamadıklarından dolayı online alışverişten kaçınabilmektedirler. Online hizmet sağlayıcıların bilgi paylaşımlarındaki ya da online yayılma süreçlerindeki başarılarında hedonik dürtüleri uyandırıcı veya diğer bir deyişle eğlence değeri sağlayacak nitelikte uygulamalar geliştirmeleri anahtar faktör olabilmektedir (Sarkar, 2011). Diğer yandan fonksiyonel alışveriş değerine sahip tüketiciler online kaynakları daha faydalı bulabileceklerdir. Çünkü internet onlar için maliyet ve zaman tasarrufu sağlayabilecektir. Ayrıca ürünler ya da markalarla ilgili somut bilgilerin kıyaslanabilmesi adına online mecraları daha güvenli ortamlar olarak tercih edebilmektedirler.

## 2. LİTERATÜR TARAMASI

### 2.1. Dijital İçerik Pazarlamasından Algılanan Faydalar

Geçmişten günümüze iletişim ve tanıtım pazarlamanın en önemli unsurlarının başında gelmektedir. Özellikle günümüzde gelişen teknolojik imkanlar neticesinde markalar, sosyal medya platformları aracılığıyla ürün ve hizmetlerini daha hızlı bir şekilde maliyet tasarrufu da elde ederek çok daha geniş kitlelere tanıtmaya ve bu kitleyle uzun süreli ilişkiler gerçekleştirme gibi fırsatlar elde etmişlerdir. Markaların elde edilen bu fırsatları daha sağlıklı değerlendirmesinde ise etkili bir pazarlama tekniği seçimi önem



taşımaktadır. Alışıl gelmiş ve tüketicilerin beklentilerini artık karşılamayan geleneksel pazarlama tekniklerinden ziyade son yıllarda popülerliğini arttıran içerik pazarlaması, markaların iletişim ve tanıtım faaliyetlerini daha sağlıklı sürdürmesine yardımcı olmaktadır. Kotler vd. (2017:167)'e göre içerik pazarlaması, "açık bir şekilde tanımlanmış bir hedef kitle için ilgi çekici, uygun ve faydalı bir içerik oluşturma, dağıtma ve desteklemeyi kapsayan sonuç olarak içerik hakkında konuşmalar başlatarak çift yönlü iletişimi hedefleyen bir pazarlama tekniğidir." Dijital platformlarda kullanıcılara eğlenceli, güvenilir ve eğitici içerikler sunmak etkili bir içerik stratejisi ile mümkün olmaktadır (Gajanova, 2018). Dijitalleşmenin etkisiyle tüketiciler, marka ile ilgili bilgi toplama, markayla iletişim kurma gibi eylemleri daha çok çevrimiçi platformlardan gerçekleştirmektedir (Singh ve Bhatia, 2016). Bu nedenle etkin bir içerik pazarlama stratejisi markalara büyük avantajlar sağlayacaktır. Dijital içerikler önemli bilgi kaynakları olduğundan, gelecekteki pazarlama yaklaşımlarının dijital ortamda özellikle de sosyal medya ve mobil uygulamalar aracılığıyla gerçekleştirileceği vurgulanmalıdır (Stephen, 2016:17).

Sosyal medya kullanımının en temel nedenlerinden biri bilgi aramadır. İşletmeler aranan ürünle ilgili bilgileri sosyal medya reklamları aracılığıyla yayınlatabilir ve böylece tüketicilerin dikkatini çekebilirler. Sosyal medya reklamlarındaki bu bilgilerin tüketici için uygunluğunun pozitif algısı kendileri için bir değer yaratabilmektedir. Dijital ortamlarda yapılan reklamlar; video klipler, müzik, podcastler ya da diğer teknolojik imkânlar sayesinde tüketicilerin hedonik ihtiyaçlarını karşılayabilecek eğlenceli içerikler sunabilme yeteneğine sahiptir (Arora ve Agarwal, 2019). Sosyal medya reklamlarında yer alan içerikler, mevcut sosyal bağlantılardan gelen yorumların gösterilmesi nedeniyle güvenilir olarak değerlendirilmektedirler.

Tüketicilerin ürün tercihleriyle ilgili karar mekanizmalarında ihtiyaç duyulan bilginin güvenilir olması önemli bir unsurdur. Dolayısıyla reklam güvenilirliği bu anlamda tüketicilerin algıları üzerinde etkili olabilmektedir. Rodgers ve Thorson (2000)'ün araştırmasına göre, tüketiciler, faydacı ihtiyaçlarına ulaşmak için gerekli bilgileri elde edebilmek adına online reklamları takip emekte ve böylece satın alma kararlarıyla ilgili birtakım problemleri çözümlenebilmektedirler. Özellikle son zamanlardaki marka yarışı içerisinde karar probleminde yaşanan kriz için ürün, marka veya işletme ile ilgili daha fazla bilme ihtiyacı ortaya çıkmıştır. Reklam içeriğinin eğlenceli oluşu, tüketicilerin reklamlardan aldığı zevk ve keyfi temsil etmektedir. Bu anlamda sadece fonksiyonel amaçlı bilgilerden ziyade hedonik ihtiyaçları tatmin edebilecek içerik çalışmaları reklam beğenilerini etkileyen önemli bir durumdur (Dao vd., 2014). Böylece markaya ya da ürüne karşı beğeni sağlanarak tüketicilerle duygusal bağın ilk adımı gerçekleştirilebilmektedir.

Bergh ve diğerleri (2011) sosyal medya kavramını üç türde değerlendirmektedir: sosyal ağ sitesi, içerik topluluk siteleri ve sosyal medya platformları. Tüketiciler iyi düşünülmüş satın alma kararları verebilmek adına genellikle sosyal medyadaki ürün incelemelerini veya başlıkları okumaktadırlar. Birden fazla kullanıcı YouTube'a bir ürün hakkındaki videolarını yüklediğinde, bu içeriğin algılanan güvenilirliği ve kullanılabilirliği artmaktadır (Mir ve Rehman, 2013). Bir kullanıcı YouTube'a bir video yüklediğinde, diğer kullanıcılar tarafından çok sayıda yorum, değerlendirme, favori ve abonelik alabilmektedir. Çeşitli izleyiciler bu videoyu beğenip oylarıyla değerlendirdiklerinde ise ilgili kanal popüler hale gelmektedir. Böylece bu popülerliğin çekici etkisiyle videonun daha fazla kullanıcı tarafından izlenmesine katkı sağlamaktadır. Dolayısıyla bu videoya karşı algılanan güvenilirlik ve kullanılabilirlik da artış göstermektedir.

Bazı şirket yöneticilerine göre işletmeler sosyal medya platformlarında yerini almazlarsa siber uzayın bir parçası olamamaktadırlar. Sosyal medya, işletmelerin son kullanıcılarla geleneksel medyaya göre daha düşük maliyetle hem doğrudan hem de hızlı bir şekilde iletişim kurmasını sağlayabilmektedir. Burada dikkat edilmesi gereken mevzu, internetin rekabetçi faydalarının dışında artık geleneksel hale gelmiş olan kurumsal web siteleri ve pazaryerleri üzerinden alışveriş imkânlarının ötesinde diğer interaktif C2C mecraların işletmeler için önemli bilgi paylaşım ya da etkileşim yerleri olduğu düşüncesidir. Bu anlamda sosyal medyayı diğer sanal mecralardan ayıran özellik kullanıcılar tarafından oluşturulmuş bir platform olmasıdır. Bu platformlarda kullanıcılar, mecranın kullanımı ve içerik üretimi üzerinde daha fazla kontrole sahiptirler. Tüketiciler artık işletmeler tarafından kendilerine anlatılmak istenileni dinlemek yerine kendi anlattıklarının işletmeler tarafından dinlenmesini istemektedirler. Dolayısıyla, rekabetçi avantaj sağlayabilmek adına işletmeler sosyal medya tanıtım stratejilerinde sosyal medya içeriğine gömülü ürünle ilgili bilgilerde duygusal tınılara yer vermelidirler. Tüketiciler, sosyal medya ağ sitelerinde içerik üreten kişileri tanıyamıyor olsalar bile onları bir fikir lideri olarak görmektedirler (Cheong ve Morrison, 2008). Tüketicilerin alışverişe gitmelerinin ana nedenlerinden biri diğer insanlarla sosyal etkileşimin sağladığı zevktir. Günümüzde maddi ihtiyaçların ötesinde daha hedonik duygularla yapılan alışveriş çılgınlığı statü, kimlik, ait olma, sayılma gibi soyut birtakım motivasyonların tatmin kaynağı olarak nitelendirilebilmektedir. Web 2.0 uygulamalarının ve özellikle sosyal medyanın ortaya çıkmasıyla birlikte kullanıcılar ürünler ya da markalarla ilgili deneyimlerini online mecralardaki topluluklarla paylaşarak da sosyalleşebilmektedirler (Mikalef, Giannakos, & Pateli, 2012). Sosyal mecralardaki algılanan ürün veya marka ile ilgili bilgi güvenilirliği, sonunda mesaj etkinliğine ve markaya karşı olumlu tutuma yol açabilmektedir. Güvenilirlik, karmaşık ve çok boyutlu bir yapıdır. Dolayısıyla bilginin yayıldığı ortam, bilginin güvenilirliğini etkileyebilmektedir (Mir ve Zaheer, 2012).

Genel olarak güvenilirlik, verilen reklam içeriğinin dürüstlüğünü, inandırıcılığını ve doğruluğunu içeren bir kavramdır (McKenzie ve Lutz, 1989). Güvenilirlik, reklam etkinliğinin ve değerinin belirlenmesinde önemli bir rol oynamaktadır. Günümüzde online medyaya duyulan güvenin artmasının nedeni, ürün ile ilgili kullanımsal inceleme ve değerlendirmelerin dürüst ve açık bir şekilde online içeriklerde yerini alabilmesidir (Sari, Suziana & Games, 2020). Diğer bir deyişle işletmelere ait olmayan kullanıcı kontrolündeki sitelerde ürün ya da markalarla ilgili her türlü olumlu ya da olumsuz yorumlar yer alabilmektedir. Hatta bu yorumlar ile ilgili puanlamalar dahi bu sayfalarda yer alabilmektedir. Böylece tüketiciler ürün reklamlarıyla ilgili bilgilerin doğruluğuyla ilgili teyitleri özellikle bu sosyal mecralardan sağlamaktadırlar.

Sosyal medya herkese seslenebilecek küresel bir platform ve aynı zamanda bir pazarlama kanalı olarak uzun bir yol kat etmiştir. Uzun yıllardır varlığını sürdüren bir platform olarak sosyal medya özellikle Twitter, Instagram, Facebook ve Youtube platformları sayesinde en güçlü reklam ve haber güncelleme kaynaklarından biri haline gelmiştir. Sosyal medyanın satış noktaları arasında WordPress ve Blogspot gibi blog siteleri, Twitter gibi mikro bloglar, YouTube gibi site içerik toplulukları aracılığıyla online dergiler ve Flickr yer almaktadır (Haida ve Rahim, 2015). Eğlence, bireylerin “kaçış, keyif, saptırma veya duygusal salıverme” ihtiyaçlarını karşılama konusundaki tam yeteneğini ortaya koyan bir aktivitedir ve bu eğlenceli içerikler sayesinde kullanıcıların hedonik tatmini sağlanmakta ve dikkat çekilmektedir. Sosyal medyada bir şeyi tweetlediğinizde veya beğendiğinizde tüm dünya artık sizin kitlenizdir.

## **2.2. Beklenti-Değer Teorisi ve Tutum**

Bireysel davranışların temel bir açıklaması olarak ortaya atılan teoriler içerisinde en yaygın kullanılanı beklenti-değer teorisidir. Bu teori bir nevi, insan davranışlarını teşvik edebilecek dürtülerin motivasyonel kaynaklarını açıklamaktadır. Buna göre kişilerin bir davranışa olan yönelimi, davranış gerçekleştirildikten sonra oluşabilecek potansiyel sonuçların ve bu sonuçların kişiye sunduğu değerlerin bir beklentisi şeklindedir. Bu beklenti-değer teorileri sosyo-psikologlar tarafından tutum yapıları olarak da ele alınmaktadır (Rogers, 1975).

Bir kişi kendisine verilen bir hedefe pozitif ya da negatif cevap verme konusunda bir eğilim gösterdiğinde, böyle bir eğilimin sonucunda elde edilebilecek değerlerin kazanımını engelleyen ya da teşvik eden potansiyel faktörler ile ilgili bir inançlar bütünü bilişsel olarak bu karar sürecine eşlik etmektedir. Bu nedenle, verilen bir hedefe doğru güçlü ve pozitif etki, bu hedefin kişiyi belli sayıda önemli değeri elde etmeye yönlendirebileceği inancıyla bağdaştırılırken, bir hedefe doğru güçlü ve negatif etki, bu hedefin önemli değerlere ulaşmada engel olma eğiliminde olduğu inancı ile bağdaştırılabilmektedir. Bu ılımlı pozitif veya negatif etkiler tutum nesnesi ile ilgili inançlarla ilişkilendirilmektedir (Rosenberg, 1956). Herhangi bir duruma karşı pozitif ya da negatif tercih, kişilerin bu ilgili hedeflerin bekledikleri değerleri ne kadar ya da nasıl tatmin edebileceği konusundaki kabiliyeti ile ilgili inançlarına yani tutumlarına bağlı olabilmektedir (Sheth, 1972).

Fishbein (1967), bir hedef ile ilgili olarak inançları altı tipe ayırmaktadır: Hedefin tanımlayıcı parçaları hakkındaki inançlar, hedefin karakteri, kalitesi ve faydaları ile ilgili inançlar, hedefin diğer hedeflerle veya kavramlarla olan bağlantılarına olan inanç, hedefin değer verilmiş durumları ya da çeşitli amaçları elde etmeye veya engellemeye yönlendireceği konusundaki inanç, hedef ile ilgili olarak ne yapılması gerektiğine dair olan inanç ve hedefin neye izin vermesi ya da vermemesi gerektiğine olan inanç. Hamouda (2018)'in yapmış olduğu bir çalışmaya göre sosyal medya reklamları tüketici tutumlarında pozitif bir etkiye sahipken bu zihinsel tutum da reklama karşı davranışlarını pozitif yönde etkilemektedir. Dolayısıyla tutum faktörünün reklam içerik (güvenilirlik, eğlence, bilgilendiricilik) özellikleriyle reklama karşı davranışlar arasında aracı etkisi mevcut görülebilmektedir.

## **3. YÖNTEM**

Bu araştırmanın amacı, sosyal medyada yapılan içerik pazarlaması faaliyetlerinden algılanan faydalar ile içeriği paylaşım davranışı arasındaki ilişkide içerik pazarlamasına yönelik tutumun aracılık etkisini test etmektir. Bu bağlamda, çalışmaya herhangi bir sosyal medya platformunda hesabı olan kişiler katılmıştır. Çalışmada veri toplama tekniklerinden online anket formu tercih edilmiştir. Literatür taraması sonucunda oluşturulan anket formu ilk olarak 20 kişiye uygulanmış ardından yapılan bu pilot çalışma neticesinde gereken revizeler yapılarak anket formu nihai haline getirilmiştir. Anket uygulaması Şubat-Nisan 2019 tarihleri arasında 575 katılımcı ile gerçekleştirilmiştir. Katılımcılardan elde edilen anketler normal dağılım, uç değerler, çarpıklık ve basıklık şartları göz önüne alınarak çalışma açısından uygun nitelikte olan 529 tane anket analizlere tabi tutulmuştur.

Anket sorularının hazırlanması sürecinde içerik pazarlaması ve sosyal medya içerikleri ile ilgili yapılmış araştırmalar üzerine eleştirel kaynak taraması yapılmıştır. Gerçekleştirilen eleştirel kaynak taraması neticesinde araştırmalarda yer alan anket soruları, değişkenler ve ölçekler değerlendirilmiştir. Değerlendirme sonucunda araştırmanın amacına uygun olabilecek sorular belirlenmiş ve gereken revize işlemleri gerçekleştirilerek araştırmanın ölçeğine uyarlanmıştır. Araştırmanın endojen değişkeni olan içeriği paylaşım davranışı, sosyal medya platformlarında kullanıcıların yapabildiği eylemler olan; beğenme, yorum yazma,

takip etme gibi davranışlardan hareketle oluşturulmuştur. Araştırma modelinde yer alan diğer ölçeklerin geliştirilmesinde yararlanılan araştırmalar aşağıdaki gibidir:

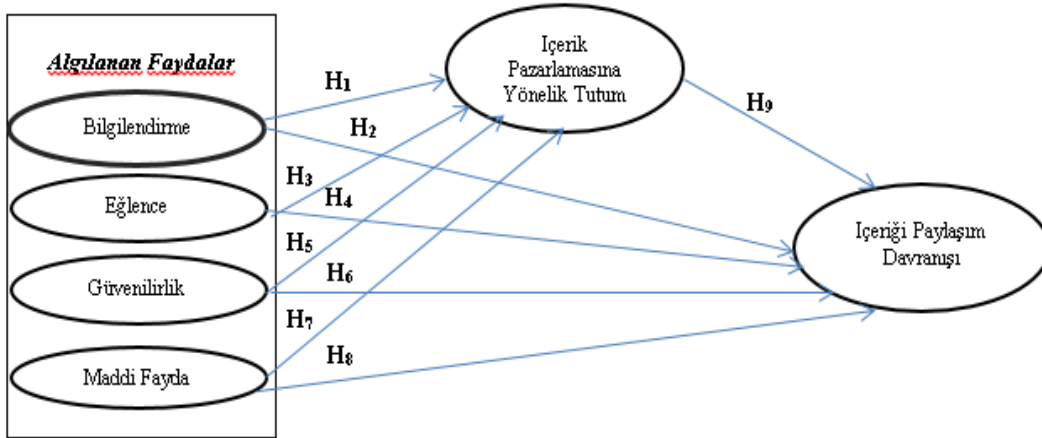
Bilgilendirme ölçeğinin oluşturulmasında Dao, Le ve Chen (2014), Mir ve Zaheer (2012), Baldus, Voorhees ve Calantone (2015) çalışmalarından yararlanılmıştır. Eğlence ve Güvenilirlik ölçeklerinin oluşturulmasında Dao, Le ve Chen (2014), Xu (2016), Wolin, Korgaonkar ve Lund (2002) çalışmalarından faydalanılmıştır. Maddi Fayda ölçeği oluşturulurken Hennig-Thurau ve diğerleri (2004), Baldus, Voorhees ve Calantone (2015) araştırmaları yol gösterici olmuştur. İçerik pazarlamasına yönelik tutum ölçeği oluşturulurken de Yang (2003)'in çalışmasından yararlanılmıştır. Ankette yer alan bütün ölçekler 5'li Likert tipindedir (1-kesinlikle katılmıyorum ve 5-kesinlikle katılıyorum). Çalışmanın egzojen değişkenleri, sosyal medya platformlarında gerçekleştirilen dijital içerik pazarlaması faaliyetlerinden algılanan faydalar olan bilgilendirme, eğlence, güvenilirlik ve maddi fayda şeklindedir. Araştırmanın aracı değişkeni içerik pazarlamasına yönelik tutum değişkenidir. Araştırmanın endojen değişkeni ise içeriği paylaşım

içerik pazarlamasından algılanan faydaların boyutları hakkında kısaca bilgi vermek gerekirse; bilgilendirme boyutu, firmaların sosyal medya platformları vasıtasıyla yaptıkları paylaşımların, ürünleri ve/veya hizmetleri hakkında kullanıcılara bilgi vermeye yönelik nihai bir amaç taşıyan bir faktördür (Ünal vd., 2011: 365). Eğlence boyutu, tüketicileri günlük yaşamın stresi ve karmaşası arasında pozitifliğe sevk eden, keyifli vakit geçirmelerine yol açan eğlendirme amacı güden paylaşımları kapsayan bir boyuttur (Ducoffe, 1996: 23; akt. Akkaya, 2013:108). Güvenilirlik boyutu paylaşımı yapılan bir gönderinin "doğruluk, güvenilirlik, inandırıcılık konularında tüketicilerin genel algısı" şeklinde tanımlanmaktadır (Ling vd., 2010:116). Maddi fayda boyutu, sosyal medya platformları aracılığıyla tüketicilerin promosyonları takip edebilme, fiyat karşılaştırmaları yapabilme gibi maddi yönden avantajlar sağlayabilecek durumlar şeklinde açıklanabilmektedir. Tutum ise kullanıcıların nesne, kanı veya ortamlara yönelik olumlu veya olumsuz bir şekilde reaksiyon verme durumunu açıklamaktadır (Robbins, 1994). Raktham, Chaipooirutana ve Combs (2017) çalışmalarında; bilgilendirme, algılanan fayda, güvenilirlik, eğlence ve sosyal medya reklamcılığına yönelik tutumların, sosyal medya reklamcılığının kabulü üzerinde güçlü ve pozitif bir ilişkiye sahip oldukları sonucuna ulaşmışlardır. Zheng ve diğerleri (2015) yürütmüş oldukları çalışmalarında; algılanan faydaların, kullanıcı etkileşimi davranışlarını etkilemede belirleyici bir rol üstlendiğini belirtmişlerdir. Kullanıcıların olumlu ödül ve başarılarla sebebiyet veren eylemleri yenileme ihtimallerinin yüksek olduğu gözlemlenmiştir.

Liu vd. (2012) tüketicilerin yeterince bilgiye ve güvene sahip olmadıkları bir konu hakkında karar verme ve harekete geçme süreçlerinde, online reklamların güvenilirliğinin belirleyici bir rol üstlendiği sonucuna ulaşmışlardır. Kujur ve Singh (2017) gerçekleştirdikleri çalışmalarında eğlence ve bilginin içerik özelliklerinin, tüketicilerin çevrimiçi katılımı ve etkileşim davranışları üzerinde doğrudan bir etkiye sahip olduğunu bulgulamışlardır. Wolin ve diğerleri (2002) yapmış oldukları araştırmalarında tüketicilerin çevrimiçi (online) reklamlara yönelik tutum ve davranışlarını incelemiş, bilgilendirmenin tutum ve davranışla pozitif bir ilişkisi olduğu gözlemlenirken, tutum ve davranış arasında da bir olumlu ilişkinin varlığını bulgulamışlardır. Sosyal medya platformlarında içeriği paylaşım davranışının ne denli bir öneme sahip olduğuna vurgu yapan bir araştırmada ise, Hosanagar, Nair ve Lee (2013) Stanford Üniversitesi'nde, "Reklam İçeriğinin Tüketici Katılımı Üzerindeki Etkisi: Facebook'tan Elde Edilen Kanıtlar" adlı bir araştırma gerçekleştirmiş ve çalışmanın yazarları Facebook'a katılımın "beğeniler", "yorumlar" ve "paylaşım" sayıları ile elde edilebileceğini belirtmişlerdir.

Bunların dışında reklamcılığa karşı tutumla ilgili popüler araştırma modelleri Ducoffe (1996)'nin modeli ve Brackett ve Carr (2001)'in modelidir. Her iki model de SMS, sosyal medya ve e-posta gibi çeşitli reklam medyalarında etkili olan faktörleri belirlemeye çalışmaktadır. Brackett ve Carr'a göre bu faktörler eğlence, bilgilendiricilik ve kısırtıcılık olarak tanımlanırken Ducoffe bu faktörlere güvenilirlik faktörünü de öncül faktör olarak eklemektedir (Noprisson vd.,2016). Literatür taraması neticesinde araştırmanın amacına uygun olarak oluşturulan hipotezler ve araştırmanın modeli Şekil 1'de gösterildiği gibidir.

Şekil 1: Araştırma Modeli



H1: Bilgilendirme boyutunun içerik pazarlamasına yönelik tutum üzerinde pozitif bir etkisi vardır.

H2: Bilgilendirme boyutunun içeriği paylaşım davranışı üzerinde pozitif bir etkisi vardır.

H3: Eğlence boyutunun içerik pazarlamasına yönelik tutum üzerinde pozitif bir etkisi vardır.

H4: Eğlence boyutunun içeriği paylaşım davranışı üzerinde pozitif bir etkisi vardır.

H5: Güvenilirlik boyutunun içerik pazarlamasına yönelik tutum üzerinde pozitif bir etkisi vardır.

H6: Güvenilirlik boyutunun içeriği paylaşım davranışı üzerinde pozitif bir etkisi vardır.

H7: Maddi fayda boyutunun içerik pazarlamasına yönelik tutum üzerinde pozitif bir etkisi vardır.

H8: Maddi fayda boyutunun içeriği paylaşım davranışı üzerinde pozitif bir etkisi vardır.

H9: İçerik Pazarlamasına yönelik tutumun, içeriği paylaşım davranışı üzerinde pozitif bir etkisi vardır.

H10: İçerik Pazarlamasına yönelik tutumun, bilgilendirme ile içeriği paylaşım davranışı arasındaki ilişkide aracılık etkisi vardır.

H11: İçerik Pazarlamasına yönelik tutumun, eğlence ile içeriği paylaşım davranışı arasındaki ilişkide aracılık etkisi vardır.

H12: İçerik Pazarlamasına yönelik tutumun, güvenilirlik ile içeriği paylaşım davranışı arasındaki ilişkide aracılık etkisi vardır.

H13: İçerik Pazarlamasına yönelik tutumun, maddi fayda ile içeriği paylaşım davranışı arasındaki ilişkide aracılık etkisi vardır.

## 4. BULGULAR

### 4.1. Temel Analizler

Araştırmaya katılan kişilerin demografik özelliklerine ilişkin tablo incelendiğinde; toplam 529 kişi çalışmaya katılmıştır. Araştırmaya katılan katılımcıların % 58,4'ü kadın, %41,6'sı ise erkeklerdir. Araştırmaya katılan kişilerin %54,4'ü 18-25 yaş aralığında, %26,5'i ise 26-33 yaş aralığındadır. Genç kitle olarak tanımlayabileceğimiz 18-25 ve 26-33 yaş arası kullanıcıların teknolojiyle iç içe bir hayat yaşadıkları göz önüne alındığında, sosyal medyada yapılan dijital içerik pazarlaması faaliyetleri konusunda da daha ilgili ve deneyimli bir yapıda olmaları muhtemeldir. Katılımcıların %57,3'ü lisans mezunudur. Araştırmaya katılan kişilerin aylık ortama aile gelirlerinin dağılımı ise birbirine çok yakındır (en yüksek 4501 TL ve üzeri %23,1).

**Tablo 1: Demografik Özellikler**

Demografik Özellikler		Frekans	Yüzde	Demografik Özellikler		Frekans	Yüzde
Cinsiyet	Kadın	309	58,4	Gelir	1500 TL ve altı	98	18,5
	Erkek	220	41,6		1501-2500 TL	114	21,6
	Toplam	529	100		2501-3500 TL	110	20,8
Yaş	18 yaş altı	2	,4		3501-4500 TL	85	16,1
	18-25	288	54,4		4501 TL ve üzeri	122	23,1
	26-33	140	26,5		Toplam	529	100
	34-41	35	6,6	Eğitim Durumu	İlköğretim	37	7,0
	42-49	36	6,8		Lise	92	17,4
	50 yaş ve üzeri	28	5,3		ÖnLisans	47	8,9
	Toplam	529	100		Lisans	303	57,3
			Lisansüstü		50	9,5	
			Toplam		529	100	

**Tablo 2: Sosyal Medya Kullanımına İlişkin Bulgular**

Katılımcıların Kullandığı Sosyal Medya Uygulamaları	Frekans	Yüzde	Sosyal ağlarda günlük vakit geçirme süresi	Frekans	Yüzde
Instagram	467	88,3	1 saatten az	69	13,0
Youtube	370	69,9	1-2 saat	195	36,9
Facebook	269	50,5	3-4 saat	190	35,9
Twitter	254	47,7	5 saat ve üzeri	75	14,2
Diğer	21	0,4	<b>TOPLAM</b>	<b>529</b>	<b>100</b>

Araştırmaya katılan kişilerin sosyal medya kullanımına ilişkin bulgular incelendiğinde; katılımcıların en çok kullandığı sosyal medya uygulaması Instagram (%88,3)'dir. Katılımcıların sosyal medya hesaplarında günlük vakit geçirme süreleri incelendiğinde ise; katılımcıların %36,9'u günde 1-2 saat, %35,9'u ise 3-4 saat vakit geçirdiğini belirtmiştir. İstatistikler incelendiğinde, katılımcıların büyük bir çoğunluğunun gününün 1 ile 4 saatlik bir bölümünü sosyal ağlarda geçirdiği belirlenmiştir.

**Tablo 3: Sosyal Medya Kullanımına İlişkin Bulgular**

Katılımcıların Sosyal Medyayı Kullanım Amaçları	Frekans	Yüzde	Katılımcıların Sosyal Medyada Markaları Takip Etme Amaçları	Frekans	Yüzde
Gündemi Takip Etmek	432	81,7	Ürünler hakkında bilgi edinmek için	356	67,3
Bilgi Edinmek	355	67,1	İndirim ve kampanyaları takip etmek için	330	62,4
Arkadaşları Takip Etmek	353	66,7	Markadan haberdar olmak için	211	39,9
Markaları Takip Etmek	196	37,1	Genelde o markayı tercih ettiğim için	197	37,2
İçerik Paylaşımı Yapmak	163	30,8	Markanın paylaştığı içerikleri beğendiğim için	120	22,7
Yeni Arkadaş Edinme	353	66,7	Ödül ve çekilişleri takip etmek için	92	17,4
Diğer	10	0,2	Diğer	2	0,1

Katılımcıların sosyal medyayı kullanım amaçlarının ilk sırasında gündemi takip etmek (%81,7) yer almaktadır. Bilgi edinmek (%67,1) ve arkadaşları takip etmek (%66,7) yine katılımcıların sosyal medyayı kullanım amaçlarının başlarında gelmektedir. Katılımcıların sosyal medyada markaları takip etme amaçlarına yönelik bulgular incelendiğinde; katılımcıların büyük bir çoğunluğu ürünler hakkında bilgi edinmek (%67,3), indirim ve kampanyaları takip etmek için (%62,4) sosyal medyada markaları takip ettiklerini belirtmişlerdir.

**Tablo 4: Tanımlayıcı İstatistikler**

Değişkenler	Ortalama	Standart Sapma
Bilgilendirme	3,85	0,90
Eğlence	3,52	0,99
Güvenilirlik	3,21	0,96
Maddi Fayda	3,68	1,04
İçerik Pazarlamasına Yönelik Tutum	3,62	0,92
İçeriği Paylaşım Davranışı	3,51	1,12

Tablo 4'te tanımlayıcı istatistiklere yer verilmiştir. Çalışmaya katılan kişilerin algıları en yüksek ortalama ile bilgilendirme değişkeninde (Ort.= 3,85); en düşük ortalama ise güvenilirlik değişkeninde bulgulanmıştır (Ort.= 3,21). Bulgulara bakıldığında katılımcıların markaların yapmış oldukları içerik pazarlaması faaliyetlerini bilgilendirici, eğlenceli, güvenilir ve maddi fayda sağlayan faaliyetler olarak değerlendirdiği söylenebilmektedir. Algılanan faydalar arasında en çok bilgilendirme faydasına (Ort.=3,85) katılımcıların vurgu yaptığı gözlemlenmektedir.

#### 4.2. Ölçeklerin Geçerlik ve Güvenirlik Analizleri

Araştırma modelini analiz etmeden önce çalışmada bulunan yapıların geçerlilik ve güvenilirlik analizleri gerçekleştirilmiştir. Gerçekleştirilen geçerlilik ve güvenilirlik analizleri çerçevesinde; iç tutarlılık güvenilirliği (internal consistency reliability), birleşme geçerliliği (convergent validity) ve ayırışma geçerliliği (discriminant validity) değerlendirmeye tabi tutulmuştur. İç tutarlılık güvenilirliği kapsamında Cronbach Alfa ve birleşik güvenilirlik (CR=Composite Reliability) katsayıları incelenmiştir. Birleşme geçerliliğinin tespit edilmesinde ise, faktör yükleri ile açıklanan ortalama varyans (AVE=Average Variance Extracted) değerleri kullanılmıştır. Faktör yüklerinin Cronbach Alpha için  $\geq 0,70$ ; birleşik güvenilirlik katsayıları için  $\geq 0,70$ ; açıklanan ortalama varyans değeri için de  $\geq 0,50$  olarak gerçekleşmesi beklenmektedir (Hair vd., 2006; Hair vd., 2014; Fornell ve Larcker, 1981). Tablo 5'te çalışmada kapsamında bulunan yapıların iç tutarlılık güvenilirliği ve birleşme geçerliliği ile ilgili sonuçlar yer almaktadır.

Tablo 5: Ölçüm Modeli Sonuçları

Değişken	İfade	Faktör Yükü	Cronbach Alfa	CR	AVE
Bilgilendirme	BİL1	0,748	0,892	0,892	0,580
	BİL2	0,766			
	BİL3	0,756			
	BİL4	0,767			
	BİL5	0,764			
	BİL6	0,767			
Eğlence	EGL1	0,752	0,883	0,882	0,602
	EGL2	0,873			
	EGL3	0,661			
	EGL4	0,763			
	EGL5	0,815			
Güvenilirlik	GÜV1	0,803	0,840	0,840	0,637
	GÜV2	0,806			
	GÜV3	0,785			
Maddi Fayda	MF1	1,000	1,000	1,000	1,000
İçerik Pazarlamasına Yönelik Tutum	İPT1	0,797	0,874	0,875	0,637
	İPT2	0,848			
	İPT3	0,718			
	İPT4	0,823			
İçeriği Paylaşım Davranışı	İPD1	0,721	0,777	0,778	0,540
	İPD2	0,693			
	İPD3	0,786			

Yapılan analizler sonucunda maddi fayda ölçeğindeki 2 ifade faktör yükleri yetersiz olduğu için çıkartılmıştır. Araştırmada yer alan yapıların, Cronbach Alfa katsayılarının 0,777 ile 1,000 arasında; CR katsayılarının da 0,778 ile 1,000 arasında gerçekleşmesiyle iç tutarlılık güvenilirliği sağlanmıştır. Faktör yüklerine bakıldığında ise 0,661 ile 1,000 arasında; AVE değerlerinin de 0,540 ile 1,000 arasında olması nedeniyle de birleşme geçerliğinin sağlandığı gözlemlenmektedir.

Ayrışma geçerliğinin tespit edilmesinde, Fornell ve Larcker (1981) tarafından önerilen kriter ile Henseler vd. (2015) tarafından önerilen HTMT (Heterotrait-MonotraitRatio) kriterleri kullanılmıştır. Fornell ve Larcker (1981) kriterine göre, araştırmada bulunan yapıların ortalama açıklanan varyans (AVE) değerlerinin karekökünü, araştırmada bulunan yapılar arasındaki korelasyonlardan yüksek olması gerekmektedir. Tablo 6'da Fornell ve Larcker (1981) kriteri referans alınarak yapılan analizin sonucu bulunmaktadır.

**Tablo 6: Ayrışma Geçerliği Sonuçları (Fornell ve Larcker Kriteri)**

Değişkenler	1	2	3	4	5	6
1- Bilgilendirme	0,761					
2- Eğlence	0,603	0,776				
3- Güvenilirlik	0,614	0,621	0,798			
4- Maddi Fayda	0,439	0,452	0,454	1,000		
5- İçerik Pazarlamasına Yönelik Tutum	0,646	0,683	0,650	0,494	0,798	
6- İçeriği Paylaşım Davranışı	0,464	0,603	0,496	0,458	0,694	0,735

Not: Parantez içindeki değerler AVE'nin karekök değerleridir.

Tablodaki değerler incelendiğinde her bir yapının ortalama açıklanan varyans değeri karekökünün diğer yapılarla korelasyonundan daha yüksek olduğu görülmektedir. Henseler vd. (2015)'nin belirledikleri kıstaslara göre HTMT, çalışmada bulunan bütün değişkenlere ait ifadelerin korelasyonlarının ortalamasının (the heterotrait-heteromethod correlations) aynı değişkene ait ifadelerin korelasyonlarının (the monotrait-heteromethod correlations) geometrik ortalamalara oranlarını ifade etmektedir. Tablo 7'de ayrışma geçerliği sonuçları HTMT değerleri yer almaktadır.

**Tablo 7: Ayrışma Geçerliği Sonuçları (Henseler vd. Kriteri)**

Değişkenler	1	2	3	4	5	6
1- Bilgilendirme						
2- Eğlence	0,600					
3- Güvenilirlik	0,614	0,622				
4- Maddi Fayda	0,439	0,449	0,454			
5- İçerik Pazarlamasına Yönelik Tutum	0,645	0,681	0,650	0,495		
6- İçeriği Paylaşım Davranışı	0,464	0,600	0,497	0,460	0,692	

Yazarlar HTMT değerinin; 0,90'ın, içerik olarak birbirine uzak kavramlarda ise 0,85'in altında olmasını gerektiğini belirtmişlerdir. Tablo 7'de görüldüğü gibi HTMT değerleri eşik değerinin altında yer almaktadır. Tablo 6 ve Tablo 7'den elde edilen bulgular göz önüne alındığında ayrışma geçerliğinin sağlandığı söylenebilmektedir.

#### 4.3. Araştırma Modelinin Test Edilmesi ve Sonuçları

Araştırma modeli analiz edilirken en küçük kareler yol analizi (PLS-SEM) kullanılmıştır. Elde edilen veriler SmartPLS 3.2.9 istatistik programı aracılığıyla analiz sürecine tabi tutulmuştur. Araştırma modeline yönelik herhangi bir sorun olup olmadığını saptayabilmek amacıyla; doğrusallık, yol katsayıları,  $R^2$ , etki büyüklüğü ( $f^2$ ) ve tahmin gücü ( $Q^2$ ) analizleri yapılmıştır. Doğrusallık, yol katsayıları,  $R^2$  ve  $f^2$  değerleri PLS algoritması ile;  $Q^2$  (tahmin gücü) değeri ise Blindfolding analizi çalıştırılarak bulunmuştur. PLS yol katsayılarına yönelik anlamlılık düzeylerini değerlendirebilmek amacıyla yeniden örnekleme (bootstrapping) ile örneklemden 5000 alt örneklem alınarak t-değerleri hesaplanmıştır (Yıldız ve Bozoklu, 2019:41). Araştırma sonuçlarına yönelik  $R^2$ ,  $f^2$ ,  $Q^2$  ve VIF değerleri Tablo 8'de yer almaktadır.



**Tablo 8: Araştırma Modeli Katsayıları (Toplam Etki)**

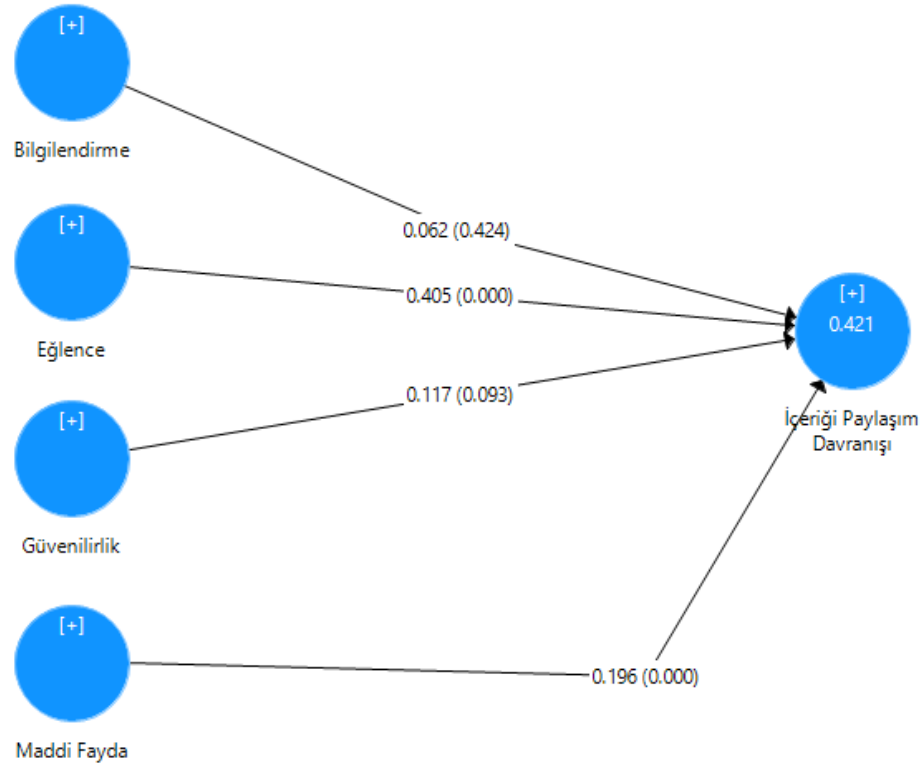
Değişkenler	VIF	R <sup>2</sup>	f <sup>2</sup>	Q <sup>2</sup>
Bilgilendirmeİçerik Pazarlamasının Yön. Tutum	1,887	0,601	0,080	0,359
Eğlenceİçerik Pazarlamasına Yön. Tutum	1,930		0,140	
Güvenilirlikİçerik Pazarlamasına Yön. Tutum	1,969		0,071	
Maddi Faydaİçerik Pazarlamasına Yön. Tutum	1,372		0,031	
İçerik Pazarlamasına Yön. Tutumİçeriği Paylaşım Davranışı	2,507	0,525	0,221	0,257
Bilgilendirmeİçeriği Paylaşım Davranışı	2,039		0,004	
Eğlenceİçeriği Paylaşım Davranışı	2,201		0,053	
Güvenilirlikİçeriği Paylaşım Davranışı	2,108		0,000	
Maddi Faydaİçeriği Paylaşım Davranışı	1,414		0,024	

Değişkenler arasındaki VIF (Variance Inflation Factor) değerleri incelendiğinde, değerlerin eşik değer olan 5'in altında olması nedeniyle değişkenler arasında doğrusallık problemi olmadığı tespit edilmiştir (Hair vd., 2014). Değişkenler arası ilişkiler sonucu elde edilen R<sup>2</sup> değerlerine bakıldığında içerik pazarlamasına yönelik tutumun %60, içeriği paylaşım davranışının ise %52,5 oranında açıklandığı belirlenmiştir. Etki büyüklüğü katsayısının (f<sup>2</sup>) 0,02 ve üzeri olması düşük; 0,15 ve üzeri olması orta; 0,35 ve üzeri olması ise yüksek olarak değerlendirilmektedir (Cohen, 1988; akt. Yıldız ve Bozoklu, 2019:41). Sarstedt vd. (2017)'e göre de katsayının 0,02'nin altında olduğu durumlarda da bir etkiden söz etmenin mümkün olmadığı belirtilmiştir.

Etki büyüklüğü katsayıları (f<sup>2</sup>) incelendiğinde; bilgilendirmenin (0,04) ve güvenilirliğin (0,00) içeriği paylaşım davranışı üzerinde etki büyüklüğü bulunmadığı gözlemlenmiştir. İçerik pazarlamasına yönelik tutumun içeriği paylaşım davranışı üzerinde (0,22) orta düzeyde etki büyüklüğüne sahip olduğu tespit edilmiştir. Diğer ilişkilerde ise bağımsız değişkenlerin bağımlı değişkenler üzerinde düşük etki büyüklüğüne sahip olduğu belirlenmiştir. Endojen değişkenler için hesaplanan tahmin gücü katsayılarının (Q<sup>2</sup>) sıfırdan büyük olması, araştırma modelinin, endojen değişkenleri tahmin gücüne sahip olduğunu kanıtlayan bir durumdur (Hair vd., 2014; akt. Yıldız ve Bozoklu, 2019:41). Tablodaki Q<sup>2</sup> değerlerinin sıfırdan büyük olması nedeniyle araştırma modelinin içerik pazarlamasına yönelik tutum ve içeriği paylaşım davranışını açıklamada tahmin gücüne sahip oldukları belirlenmiştir.

Araştırma modelinde yer alan hipotezleri test etmek amacıyla aracı değişkenin çıkartıldığı ve aracı değişkenin dahil olduğu yapısal eşitlik modelleri şekil 2 ve 3'te gösterilmiştir.

Şekil 2: Aracı Değişkensiz Yapısal Eşitlik Modeli

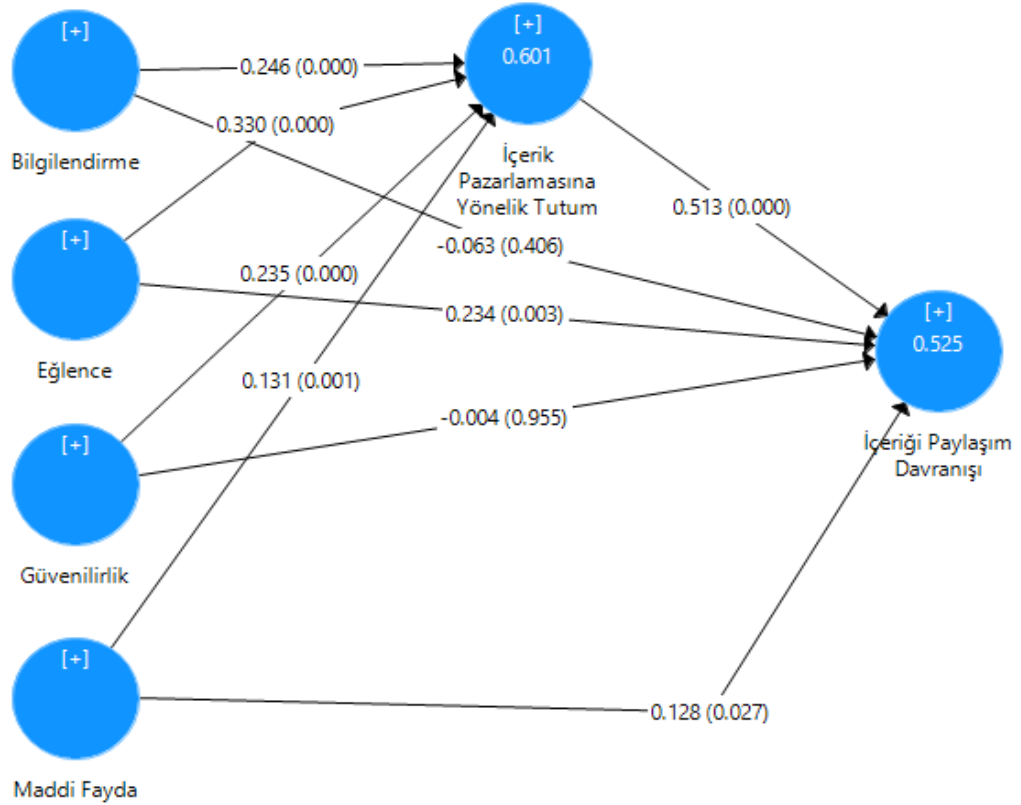


Bilgilendirme, eğlence, güvenilirlik ve maddi fayda değişkenleriyle içeriği paylaşım davranışı değişkeni arasındaki ilişkide içerik pazarlamasına yönelik tutumun aracılık rolünün olup olmadığı belirlenmeye çalışılmıştır. Aracılık etkisini araştırmak amacıyla ilk aşamada aracı değişken araştırma modelinden çıkarılarak yol katsayılarının anlamlılığı test edilmiş ve şekil 2’de gösterilmiştir. Ardından da aracı değişken modele dahil edilerek, yol katsayılarının anlamlılığı test edilmiş ve şekil 3’te gösterilmiştir.

Tablo 9: Araştırma Modeli Doğrudan Etki Katsayıları

Değişkenler	Standardize $\beta$	Standart Hata	t değeri	p
Bilgilendirme→İçeriği Paylaşım Davranışı	0.063	0.077	0.800	0.424
Eğlence→ İçeriği Paylaşım Davranışı	0.404	0.077	5.272	0.000
Güvenilirlik→İçeriği Paylaşım Davranışı	0.117	0.070	1.681	0.093
Maddi Fayda→ İçeriği Paylaşım Davranışı	0.195	0.055	3.536	0.000
Bilgilendirme→ İçerik Pazarlamasına Yön. Tutum	0.266	0.065	4.051	0.000
Eğlence→İçerik Pazarlamasına Yön. Tutum	0.308	0.062	4.973	0.000
Güvenilirlik→İçerik Pazarlamasına Yön. Tutum	0.158	0.073	2.234	0.026
Maddi Fayda→İçerik Pazarlamasına Yön. Tutum	0.203	0.064	3.157	0.002
İçerik Pazarlamasına Yön. Tutum→ İçeriği Paylaşım Davranışı	0.373	0.090	4.190	0.000

Şekil 3: Aracı Değişkenli Yapısal Eşitlik Modeli



Araştırma modeline ilişkin doğrudan etkilere yönelik sonuçlara Tablo 9'da yer verilmiştir. Eğlence ( $\beta=0,404$ ,  $P=0,000$ ) ve maddi fayda ( $\beta=0,203$ ,  $P=0,000$ ) değişkenlerinin içeriği paylaşım davranışını etkilediği ( $H_4$ ,  $H_8$ ; Kabul), bilgilendirme ( $\beta=0,063$ ,  $P=0,424$ ) ve güvenilirlik ( $\beta=0,117$ ,  $P=0,093$ ) değişkenlerinin içeriği paylaşım davranışı üzerinde istatistiksel açıdan anlamlı doğrudan etkilerinin olmadığı anlaşılmıştır ( $H_2$  ve  $H_6$ ; Red). Ardından aracı değişken modele dahil edilmiş ve yol katsayılarının anlamlılığı test edilmiştir ( $H_1$ ,  $H_3$ ,  $H_5$ ,  $H_7$ ; Kabul). Bilgilendirme, eğlence, güvenilirlik ve maddi fayda değişkenlerinin içerik pazarlamasına yönelik tutumu etkilediği gözlemlenmiştir. Aracı değişken olan içerik pazarlamasına yönelik tutumun da içeriği paylaşım davranışını etkilediği ( $\beta=0,373$ ,  $P=0,000$ ) gözlemlenmiştir ( $H_9$ ; Kabul).

**Tablo 10: Araştırma Modeli Dolaylı Etki Katsayıları**

Yol			Standardize $\beta$	Standart Hata	t değeri	p değeri
Bilgilendirme	İçerik Pazarlamasına Yönelik Tutum	İçeriği Paylaşım Davranışı	0.126	0.039	3.213	0.001
Eğlence			0.169	0.041	4.132	0.000
Güvenilirlik			0.120	0.038	3.174	0.002
Maddi Fayda			0.067	0.026	2.577	0.010

Baron ve Kenny (1986)'e göre bir aracılık etkisinden söz edebilmek için, bağımsız değişkenlerin bağımlı değişkenler üzerinde anlamlı bir etkisi bulunmalıdır. Ayrıca modele aracı değişken dahil edildiğinde, bağımsız değişkenlerin aracı değişken, aracı değişkenin de bağımlı değişken üzerinde anlamlı bir etkisinin olması gereklidir. Zhao, Lynch ve Chen (2010)'e göre de, bağımsız değişkenlerin bağımlı değişkenler üzerinde anlamlı bir etkisi bulunmasa da; bağımsız değişkenin aracı değişkeni, aracı değişkenin de bağımlı değişkeni etkilemeleri söz konusu olduğunda aracı etkinin varlığı kabul edilebilir. Doğrudan etki katkı sayıları incelendiğinde bağımsız değişkenlerin aracı değişkeni, aracı değişkenin de bağımlı değişkeni etkilediği belirlenmiştir. Ayrıca yine Zhao, Lynch ve Chen (2010)'e göre, dolaylı etkilerin anlamlı olması durumunda aracılık etkisinden söz edilebilir (Yıldız, 2020:104). Dolaylı etkiler incelendiğinde, içerik pazarlamasına yönelik tutum üzerinden, bilgilendirme ( $\beta=0,126$ ,  $P=0,001$ ), eğlence ( $\beta=0,169$ ,  $P=0,000$ ), güvenilirlik ( $\beta=0,120$ ,  $P=0,002$ ) ve maddi fayda ( $\beta=0,067$ ,  $P=0,010$ ) boyutlarının içeriği paylaşım davranışı üzerinde dolaylı etkilerinin olduğu belirlenmiştir. Dolayısıyla; bilgilendirme, eğlence, güvenilirlik ve maddi fayda boyutlarıyla içeriği paylaşım davranışı arasındaki ilişkide içerik pazarlamasına yönelik tutumun aracılık rolünden söz edilebilir

Tablo 9 ve 10'daki bulgulara göre aracılık etkileri tespit edilmiştir ve bu nedenle VAF (Variance Accounted For) katsayı değerleri hesaplanmıştır (Doğan, 2018). VAF değerleri:

Bilgilendirme -> İçerik Pazarlamasına Yönelik Tutum -> İçeriği Paylaşım Davranışı yolunda 0,67; Eğlence -> İçerik Pazarlamasına Yönelik Tutum -> İçeriği Paylaşım Davranışı yolunda 0,30; Güvenilirlik -> İçerik Pazarlamasına Yönelik Tutum -> İçeriği Paylaşım Davranışı yolunda 0,51; Maddi Fayda -> İçerik Pazarlamasına Yönelik Tutum -> İçeriği Paylaşım Davranışı yolunda 0,26 olarak hesaplanmıştır. VAF değerleri doğrultusunda içerik pazarlamasına yönelik tutumun bilgilendirme, eğlence, güvenilirlik ve maddi fayda değişkenleri ile içeriği paylaşım davranışı arasındaki ilişkilerde kısmi aracı etkiye sahip olduğu tespit edilmiştir ( $H_{10}$ ,  $H_{11}$ ,  $H_{12}$  ve  $H_{13}$ ; Kabul).

## 5. SONUÇ

Geçmiş araştırmalar ışığında geliştirilen ve test edilen model kapsamında sosyal medya kullanımının algılanan faydalarıyla işletmelerin içerik pazarlaması uygulamalarına karşı gösterilen davranışın arasında aracılık etkisi gösteren tutum değişkeninin bu etkisi daha önceki çalışmalarla paralellik göstermektedir. Çalışmanın başında da ifade edildiği gibi genel davranış teorileri çerçevesinde bakıldığında bireylerin herhangi bir davranışa yönelme kararıyla ilgili bilişsel süreçlerinde dışsal veya içsel dürtülerin yarattığı ihtiyaçlar doğrultusunda bir yargı geliştirilmektedir. Bu yargılama süreci bireylerin hem geçmiş deneyimleri hem de yeni edinilen bilgiler neticesinde oluşturulan inançlar bütününe kapsamaktadır. Tutum dediğimiz bu yargısal inançlar bütünü herhangi bir davranışa yönelmede doğrudan bir etkiye sahiptir. Bununla birlikte her pozitif tutum davranışa dönüştürülemeyeceği gibi her negatif tutum da davranışı engelleyebilecek güce sahip olamayabilmektedir. Bireysel tutum ve davranışlar birbirleriyle ilintili ve kompleks bir yapı içerisinde hareket ederken bu sürecin her bir adımını çözebilecek oldukça zordur. Belirli limitler çerçevesinde gerçekleştirilen çeşitli araştırmalar sayesinde bu süreci etkileyebilecek başka dışsal fenomenlerin de keşfi söz konusu olabilmektedir. Bu çalışmada özellikle ele alınan sosyal medya davranışları çerçevesinde kullanıcıların bu mecralardan bekledikleri faydalar ile ilgili birtakım faktörler incelenmiştir. Beklenen fayda yaklaşımına göre bireyler herhangi bir davranışa yönelik kararlarında bu davranışın sonunda elde edebilecekleri faydanın kendileri için değerine göre bir sonuca varmaktadır. Bu konuyla ilintili olarak açıklanmaya çalışılan sosyal medya davranışları araştırmalarında özellikle üzerinde durulan ve kullanıcıların ilgili sosyal medya mecrasından bekledikleri fayda değişkenleri eğlence, güvenilirlik, bilgilendiricilik ve maddi fayda olarak tanımlanmaktadır. Bu çalışmada da ele alınan fayda değişkenlerinin davranış üzerindeki etkilerine bakıldığında, özellikle maddi ve eğlence faydasının davranış üzerinde doğrudan bir etkisi olduğu görülmektedir. Sosyal medya mecraları, birçok kullanıcı için sosyalleşme platformlarıdır (avm ya da mağaza geziciliği gibi). Bir nevi bir boş zaman aktivitesi olarak da görülebilmektedir. Dolayısıyla kullanıcıların hedonik anlamdaki beklentileri içerisinde eğlence faktörünün birincil etken madde olarak ön plana çıkması kaçınılmaz bir durumdur. Diğer yandan ikincil faktör olarak karşımıza çıkan maddi

fayda ise, platformların sosyalleşme amacı dışında ürün ve markaların kampanyalarını takip ederek fırsatları değerlendirme mecrası olarak görülmesi gerçeğinin bir sonucudur. Araştırmada tanımlayıcı istatistiklerde de yerini alan sosyal medya kullanım amaçları sonuçlarına bakıldığında; birinci amaç gündemi takip etmek, ikinci amaç ise ürünler ve markalar hakkında bilgi edinmek ve kampanyaları takip etmek şeklinde yorumlanmaktadır. Burada elde edilen bulgular aslında önceki araştırma sonuçlarını destekler nitelikte de ele alınabilmektedir.

Diğer yandan sosyal medya güvenilirliğinin ve bilgilendiriciliğinin sosyal medya davranışları üzerinde doğrudan bir etkisi bulunmamasına rağmen zihinsel tutumları etkileme neticesinde davranışları dolaylı olarak etkileme potansiyelleri görülmektedir. Burada doğrudan etkinin kırılma sebebi dikkate alındığında, her ne kadar ürün ve marka takibi amacıyla kullanılan bir platform olsa da paylaşılan bilginin güvenilirliği ile ilgili bir takım kanıtlar aranmaktadır. Güvenilirliği arttırıcı paylaşımların sayısı arttıkça zihinsel anlamda güvenilirlik artmakta ve böylece davranışsal anlamda beğeni, takip, yorum veya paylaşım gibi davranışlar sergilenmektedir. Daha önce de bahsedildiği gibi özellikle bazı fikir lideri veya etkileyici kişilik olarak kabul edilen öncü kişilerin sosyal medya paylaşımları daha güvenilir olarak algılanabilmekte ve bu anlamda işletmelerin ürün ya da marka değerlerini arttırabilmek adına öncelikle bu kişileri ikna edebilmeleri kilit bir nokta olarak görülmektedir. Sosyal medya kullanıcıları, maddi fayda veya eğlence yaratan içeriklere doğrudan tepki vererek bir davranışa yönelebilir iken bilgilendirici içerikleri ancak beraberinde eşlik edebilecek güvenilirlik unsurlarıyla birlikte kayda değer bulduklarında davranışa yönelebilmektedirler.

## 6. ARAŞTIRMA KISITI VE GELECEK ÇALIŞMALAR İÇİN ÖNERİLER

Araştırma belirli örnek kümesi üzerinden gerçekleştirildiğinden bu kişilerin sosyal medya tutum ve davranışlarıyla ilgili anket sorularına verdiği cevapların doğru olduğu varsayılmaktadır. Diğer bir deyişle herhangi bir etki altında kalmaksızın dikkatli bir şekilde okunarak cevap verildiği düşünülmektedir. Ancak verilen bu cevaplardaki içsel tutarlılık ölçümleri ve çarpıklık analizleri sayesinde araştırmanın genel güvenilirliği ve gerçekliği kısmen ölçülebilmektedir. Bu anlamda araştırma bulgularında yeterli oranlara ulaştığı görülmektedir. Örnek sayısı arttıkça ana kütleyi temsiliyet de artacağından sınırlı imkânlar çerçevesinde ve özellikle yapısal eşitlik modellerinde istatistiki geçerlilik adına en az 300 kişi sınırlamasının üstüne çıkılabilmektedir. Bu anlamda her zaman söylenebildiği gibi daha büyük kitlelerde özellikle sosyal medya davranışları açısından bir anakütle sınıflaması yapılarak kolayda örneklemenin yanında kısmi bir kota örnekleme yapılması tavsiye edilebilmektedir. Ayrıca bu sonuçların kıyaslanabilmesi adına nitel bir analiz tekniği olarak gözlem yöntemi kullanılarak kullanıcıların gerçek zamanlı sosyal medya davranışlarının çözümlenebilmesi farklı bir bakış açısı da kazandırabilecektir.

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## PLANNED OBSOLESCENCE: A KEYWORD ANALYSIS

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## ABSTRACT

**Purpose** – Marketing approaches have shifted towards consumer oriented approach throughout the 21st century and accordingly, marketing applications mainly tend to satisfy consumers and earn their trust. However, unethical applications may damage consumer satisfaction and trust. One of these unethical applications is planned obsolescence, which exists for years but became popular in recent years with some popular brands. This paper mainly aims to find out the most related keywords related to the popular term of recent years, planned obsolescence. After providing the relevant literature, history of planned obsolescence, planned obsolescence applications and types of planned obsolescence are provided in the literature section.

**Methodology** - After giving the relevant literature, keyword analysis has been used. To conclude the keyword analysis, 70 articles related to planned obsolescence have been downloaded from Scopus database. After downloading the relevant articles, VOS Viewer has been used for keyword analysis and germane keywords have been interpreted.

**Findings** – According to the keyword analysis, 28 items were found to be related to the planned obsolescence keyword. These keywords have been grouped as five clusters which are mainly related with; durability, sustainability, waste and product perishability. The fifth cluster includes two unrelated terms of consumer culture and environmental law. Without grouping clusters sustainability, sustainable development, economics, e-waste and product design are found to be the most frequently used keywords. Sustainability, sustainable development, and economics have the highest total link strength with planned obsolescence main keyword.

**Conclusion** – According to the keyword analysis conducted, keywords show that planned obsolescence has been determined to be related to negative consequences for both environment and consumers. Sustainability has found to be the most related keyword. As sustainable marketing is one of the popular concerns of the marketing discipline, unethical applications like planned obsolescence and sustainability come across. Additionally to sustainability; economics, product design are found to be the other most related keywords.

**Keywords:** Planned obsolescence, consumer behavior, marketing ethics, marketing, sustainability

**JEL Codes:** M30, M31, M39

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## 1. INTRODUCTION

Throughout the 20th century, marketing approaches have shifted from sales, product and production oriented approach to consumer-oriented approach. Marketing applications have aimed to satisfy consumers with obtaining trust, satisfaction and thus, loyalty. Even though marketing strategies have shifted from production and sales-centric to consumer-centric, some dominant brands still tend to obey consumer trust and satisfaction by applying unethical strategies thus some management and marketing applications do not necessarily satisfy consumer expectations. One of these unethical strategies is planned obsolescence. Planned obsolescence wears-off products before their actual life span with various methods to force consumers to repurchase the new products or force them to pay repair costs.

Planned obsolescence was initially discussed by Packard (1960), as an unethical strategy to design products which exulcerate untimely. Planned obsolescence is a strategic regulation of planning, designing, producing and manufacturing goods with restricted serviceable life (Erdil and Taçgın, 2019, 80). In other words, businesses plan their production mechanisms based on products becoming worn off during a certain period of time. Planned obsolescence is a business strategy for planning a product's



aging period before becoming available on the market. The main goal of the firms while adopting this policy is to force customers to substitute goods they already own. Physical aging, aging in terms of efficiency, aging in terms of cosmetic longevity, aging by limiting repairability, systemic aging, technical aging, delayed aging and aging related to fashion are distinct forms of obsolescence (Akçay, 2018). Businesses that apply planned obsolescence can be called "waste makers" (Packard and McKibben, 1963).

Even though planned obsolescence is an unethical term for businesses; obsolescence is a positive word for most disciplines. For disciplines like architecture, art or novelty; obsolescence has a historical and positive meaning. However, for marketing discipline this circumstance is not the same. Obsolescence causes some extra spending for consumers, many waste products for the environment, and negative consequences for good producers.

Durable goods-producing businesses may face competition from the units used because of the long-lasting nature of the products. To overcome such competition, firms may "kill off" used units by introducing newer versions of the product, making the used units economically obsolete. This application is planned obsolescence (Iizuka, 2007, 191).

## **2. LITERATURE REVIEW**

### **2.1. Planned Obsolescence Cases in the History**

There is a famous lamp produced by Shelby Electric Company, still lighting for more than 100 years. This is an excellent example of a non-obsolescence. However, it is now challenging to find a lamp that lights for more than a couple of years. Even though technology has advanced dramatically in the last 100 years, a lamp that has been created with a relatively deficient level of technology era lighted for more than 100 years. This is mainly caused of the planned obsolescence, as companies do not tend to produce long-living products. Not necessarily every company applies planned obsolescence, but there are lots of companies that tend to use it.

Another brand that can be a good example is DuPont. DuPont was producing low-quality products and could not satisfy consumers before the era of World War II. The low quality of nylon stockings in its early design did not satisfy the female public. DuPont started cooperating to achieve military goals and applied the knowledge it had treasured about nylon fibre to develop more potent derivatives. The nature of nylon justified that the product could be used for long periods and this troubled DuPont and other companies that had entered into the same market. Gradually, the quality of stocking diminished. In the U.S., demonstrations evolved against what they understood as "social insensibility" because they did not provide fair conditions for a useful product for women. This resulted in significant media pressure toward DuPont, and they were directed to increase the quality. The material reached very high standards and until the end of the 40s were transposed into the market, making available a quality and durable product (Monteiro, 2018, 23).

In earlier literature for planned obsolescence, it is mainly focused on the "monopoly" keyword (Swan, 1972, 575) and the "automotive" sector (Rodabaugh, 1966; Flink, 1972; Sherif and Rice, 1986). Monopoly is a frequent keyword because, especially for sectors with monopoly or relatively monopoly, powerful brands can find themselves in a position almost to act as however they want. Imagine an almost impossible scenario, where there is only a single automotive manufacturer in the World. For this scenario, the brand may apply planned obsolescence as there are no rivals to threaten them.

Automotive industry is another frequently used keyword for planned obsolescence because as academic literature regarding planned obsolescence has started with 1910's; the first planned obsolescence applications in the business world has been observed. In the 1910's and 1920's automotive industry has been a critical factor for planned obsolescence, with brands such as Ford and Chevrolet applied this strategy. During the late 1950's these two brands have once again been key actors for planned obsolescence in the automotive industry (Packard and McKibben, 1963, 52).

In the early 1990's, IBM has altered the operating system used in its personal computers by reducing the compatibility between its old and new computers (Waldman, 1993, 273). It has been one of the earlier cases of planned obsolescence in technology.

Printer brands such as Epson, HP, Canon and Brother was sued for forcing consumers to change printer inks before they completely finish. In 2014, France even passed "Hamon Law" which put some practices on planned obsolescence. France has been the first country to adopt a resolution against planned obsolescence (Schrieberg, 2017).

Another investigation regarding planned obsolescence has proceeded in Italy against Samsung and Apple. To decide whether two prominent mobile makers use software upgrades to hurry smartphones to influence consumers to upgrade their phones. According to the community, Apple and Samsung do not give consumers adequate information on the impact of software upgrades. They do not include specifics of how they could slow down installation of devices which it claims could breach many Italian consumer protection code posts (Gartenberg, 2018).

Recently, Apple's planned obsolescence has been an infamous case. Known as "the Batterygate"; Apple slowed down batteries of older smartphones. Some Apple users have already been claiming that Apple was intentionally slowing down older phones and probably they were right. After a lawsuit in 2020, Apple has been accused of slowing down older mobile phones and settling to pay a 500M\$ compensation, while paying 25\$ for each old iPhone user who has applied to get paid for compensation. This one has been one of the most sensational planned obsolescence cases (Nicas, 2020).

Consumer responses were conclusive on a few occasions. Many may also opposed Apple in far more situations exposed than they wanted. Even though such practices were simple and specifically targeted at one more step in obsolescence, they were approved and embraced by customers. Indeed, customers have even protected planned obsolescence in some instances. This is Apple's more astonishing accomplishment in the production sector since it has persuaded parties that this is a successful strategy, mindful of its obsolescence. At the same time, it goes against their own interests (Pineda and Salmoral, 2017, 24). This is a good example of brand advocacy. Brand advocacy happens when consumers feel very passionate about a brand, seek to promote it to others and defend it against its naysayers (Wilder, 2020). Consumers defend the brands which are favorable to them like they are the advocates of the brand. However even if some consumers defend the brands they are fanatically loving, some consumers may get discouraged and feel disappointed by such applications. Apple's smartphone market share can provide ample proof for this. According to Statista (2020), Apple has been the second brand of smartphone market in terms of market share for most of the 2010's. Till 2020, Apple has been competing with Samsung for the first spot, sometimes passing their rivals, but mostly being dominated by Samsung in terms of market share. However with the second half of the 2020, Chinese brands Huawei and Xiaomi got more vital in the smartphone market and become the 2nd and 3rd brands of smartphone market in terms of market share. According to the latest report of Statista regarding smart phone market shares; Samsung is the leader of the market with %22.7, Huawei is second with %14.7, Xiaomi is third with %13,1 and Apple become fourth with %11.8 market share (Statista, 2020). These market shares are lower than the era of early 2010's, where Nokia and Blackberry were market leaders and Apple was attacking aggressively to dominate the market. These numbers might be consequences of Apple's planned obsolescence, additionally to their high pricing strategies relative to their rivals.

## **2.2. Consumer Regulations and Types of Planned Obsolescence**

As mentioned above, consumer protection regulations have been applied in some countries to avoid the ill-usage of brands. Relatively to consumer protection applications, another subject is the balance of unequal relation in consumption (Pineda and Salmoral, 2017, 39).

Excessive consumptive activity on the consumer's side has arisen from the affluent's monopoly and extended to the base of society. Planned obsolescence strategy increases the rate of consumption as a tool of consumption culture.

There is a marketing term of "purchase frequency" which means how repetitive consumers are making the purchase. As businesses apply planned obsolescence, purchase frequency increases; thus dynamics of consumer behavior sub-discipline change. An unethical approach of businesses to wear out products affects the frequency of consumers. Without a doubt, planned obsolescence is not the only factor that affects how frequently consumers purchase. Owning a luxurious product means representing a prestige, communicating social status and impressing others like peers for some consumers (Abid and Abbasi, 2014, 3). Consumers may tend to purchase the newest iPhone, Nike shoes or any other thing that represents luxury for them to show off their status.

Planned obsolescence can actually be applied with various methods. Cooper (2004) has divided obsolescence into; psychological obsolescence, economic obsolescence and technological obsolescence. Technological obsolescence arises when people are attracted to functions in newer models added or changed due to advances in knowledge. As new screen technologies have been introduced, older televisions become out of date. Especially tube televisions have got out of date with the introduction of LCD, Led televisions. Psychological obsolescence is about the attractiveness and satisfaction level of newer products. As new products are more attractive and satisfy consumers more, this kind of obsolescence happens. Throughout the recent years in the automotive industry, there have been dramatic design innovations for both the internal and external automobiles. As the 2020 year, designs of 2020 model automobiles are incredibly stylish compared to automobiles which are not counted as older cars like 2015 to 2017 model automobiles. Economic obsolescence is the loss of economic value of the product kept by consumers. If a product's value decreases dramatically with new introduced products or other factors, economic obsolescence would likely occur.

These methods are the sources of obsolescence and businesses professionally apply these planned obsolescence categories to their production strategies. If countries continue applying legislation to avoid planned obsolescence and protect consumers, businesses' obsolescence strategies may be interrupted. But these applications still exist and to analyze which concepts are mostly used regarding planned obsolescence, a keyword analysis is applied.

### 3. KEYWORD ANALYSIS

Keyword analysis is an important research theme in bibliometrics (Wang and Chai, 2018, 721) and became a popular analysis method in recent years with analyzing texts via computer assistance (Seale and Tonkins, 2012). Keyword analysis represent the author's opinion of several most essential words in their articles and potentially detect trending research topics. Additionally keyword analysis reveals research topics that are most frequently used, association of keywords and likelihood of them (Pesta et al., 2018, 2). Keyword analysis is mainly a literature review methodology, applied via computer programs with using networks and occurrences.

With keyword analysis, it is aimed to observe the most relevant factors regarding planned obsolescence concept. Additionally, to relevant factors, the occurrence of these factors and link strengths are aimed to be observed with an analysis conducted via VOS Viewer (van Eck and Waltman, 2020). Meaning and application of these terms have been given below Figure 1.

Over the past 15 years, Web of Science, Scopus, and Google Scholar have been the three most important multidisciplinary bibliographic data sources, providing metadata on scientific documents and citation links between them. Therefore, WoS and Scopus have long been the only options for large-scale bibliometric studies (Visser et al., 2020, 1).

Planned obsolescence term have been used to collect data and marketing related articles of planned obsolescence keyword have been downloaded from the Scopus database. The downloaded database has been analyzed with a co-occurrence network option. The basic premise is clearly that terms with similar meanings seem to arise in typical ways, and thus, co-occurrence statistics should provide a natural base for semantic representations (Bullinaria and Levy, 2007, 510).

The results retrieved included 70 documents from Scopus. Documents from 1974 to 2020 were retrieved. Articles unrelated to marketing and related to engineering or economics have been excluded as this article is a marketing article.

Keyword co-occurrence network is formed when keywords of specific articles form a relationship (Khan and Wood, 2015, 962). A network map of co-occurrences is given below.

Figure 1: Keyword Network

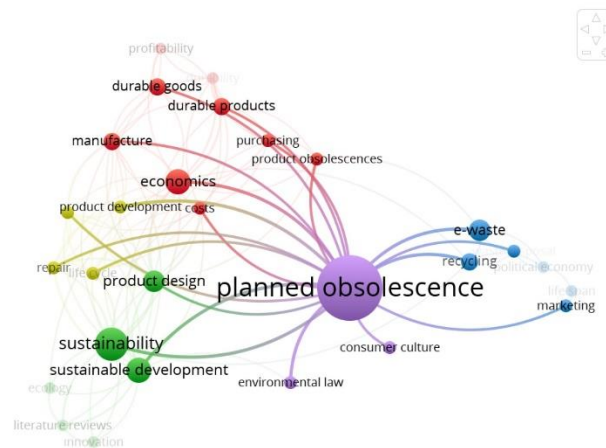


Figure 1 includes the most relevant keywords to planned obsolescence keyword. The methodology of Vos Viewer application is to list these keywords via co-occurrences of these keywords and link strength of these keywords. Co-occurrences mean how frequently these keywords are used in articles. For example sustainability keyword has been found to occur seven times. This means sustainability keyword is used at seven of seventy total articles. For a given item, the Links and Total link strength attributes indicate, respectively, the number of links of an item with other items (van Eck and Waltman, 2020, 6).

Twenty-eight items are found to be related to planned obsolescence keyword. These twenty-eight items have been clustered into five categories. These categories are seen with different colors in the network map. There have been 118 links between all related keywords and total link strength of these keywords is 151. From the network map, keywords with bolder relation arrows are related more powerfully.

As it might be difficult to differentiate these keywords from the map and give their clusters, links, total link strengths and occurrences; the keyword analysis table has been given below.

**Table 1: Results of Keyword Analysis**

Keyword	Cluster	Links	Total Link Strength	Occurrences
Profitability	1	5	5	2
Durable Goods	1	7	7	3
Durability	1	9	11	2
Durable Products	1	10	12	3
Manufacture	1	14	16	3
Purchasing	1	7	7	2
Product Obsolescence	1	8	8	2
Economics	1	18	25	5
Costs	1	14	16	2
Product Design	2	16	24	4
Sustainability	2	14	24	7
Sustainable Development	2	14	23	5
Ecology	2	4	4	2
Innovation	2	4	4	2
E-Waste	3	5	7	4
Recycling	3	6	8	3
Political Economy	3	4	4	2
Life Span	3	2	2	2
Marketing	3	2	2	2
Waste Disposal	3	4	4	2
Cost Effectiveness	4	10	11	2
Repair	4	10	14	2
Product Development	4	11	12	2
Life Cycle	4	10	14	2
Environmental Law	5	2	3	2
Consumer Culture	5	1	1	2

According to the table, there have been five clusters. The first cluster includes profitability, durable goods, durability, durable products, manufacture, purchasing, product obsolescence, economics and costs. These terms are mainly related to durability and economics&finance. As one of the main keywords related to planned obsolescence is durability, it is an obvious keyword for planned obsolescence. Planned obsolescence concerns about durability decisions (Waldman, 1996, 584). Especially link strengths of durability, durable goods and manufacture are relatively high. Thus these terms are positively linked with planned obsolescence.

The second cluster contains product design, sustainability, sustainable development, ecology and innovation terms. These terms are mainly related with sustainability. The main aim of sustainable marketing is to achieve financial goals while being sensitive for social and environmental responsibilities (Pogrebova et al., 2017, 694). As planned obsolescence results in more frequent production, more frequent purchase for consumers thus more waste products, it directly contradicts with sustainability and

sustainable marketing. As total link strengths and occurrences of sustainability keywords are high, this term is strongly and frequently related to planned obsolescence.

The third cluster has e-waste, recycling, political economy, life span, marketing and waste disposal keywords. These terms are mostly related to waste. Political economy and marketing keywords represent both politics, economics and marketing strategies are mentioned in related articles. The waste term can also be related to sustainability and the second cluster. Whether it is food waste, water waste or product waste; sustainability has always been a related issue for marketing literature.

The fourth cluster includes cost effectiveness, repair, product development and life cycle keywords. These terms are mainly related to product perishability. As life cycles of worn-out products' ends, these products require repair, which causes extra costs for consumers. Repair can be an additional cost for consumers without repurchase if the brand is also the product's service supplier. Brands can both be the vendor and the repair service of products and create another cost for the consumer. These terms are also related to first cluster and durability.

The fifth and final cluster contains only two keywords. These are consumer culture and environmental law. Planned obsolescence has been a critique concept for consumer culture as brands try to accelerate consumers' consumption (Wieser, 2016, 156). As mentioned early at the waste concept, environmental law is also another keyword related to planned obsolescence. Some measures have to be taken regarding these strategies to save to the environment. As mentioned in the literature section, some countries like Italy and France have taken some steps towards planned obsolescence with applying legal measures.

#### **4. CONCLUSION**

Planned obsolescence has been used by several popular brands throughout the history and more frequently in recent years. Even there are many non-academic articles regarding this unethical term. Marketing literature related to this word is not so extensive, which can be proven by the fact that there could only been found 70 articles worldwide about the marketing perspective of planned obsolescence. In most articles that apply keyword analysis, writers utilize more amount of articles. From these seventy articles, there have been 28 keywords found to be related to planned obsolescence. Among these, keywords grouped at sustainability cluster are found to be the most related keyword. Sustainable marketing is a popular term of marketing both in practice and academics and offers a market philosophy of sustainable development to create a model of responsibility towards consumers (Pogrebova et al., 2017, 694). As marketing faces criticisms regarding its profit based mentality and approach (Seretny and Seretny, 2012, 1), unethical applications like planned obsolescence can severely damage the brand image; whereas ethical perceptions like sustainable marketing can empower the brand image. As sustainability and planned obsolescence are at cross-purposes, negative consequences of planned obsolescence is a concern for sustainability.

Brands that become more dominant in a particular market may tend to apply unethical strategies like planned obsolescence. It has so many consequences for either society, ecology and business world. Keywords founded via keyword analysis are mainly concerned with environment, waste, sustainability, durability, repair, and worn-off products' costs. As more people will be forced or weighed on to purchase new products, more waste products will be. Thus environment and sustainability will get hurt.

There will be economic consequences and consumers will spend more on both new products or repairing existing products. As brands put on the market frequently, this can also create consumption inequality as people may tend to purchase frequently to feel social privilege.

Even top brands may have high brand images, thus have high consumer loyalties. Every brand can lose these advantages with wrong marketing strategies. Such an unethical marketing strategy has so many negative consequences, not only dangerous for the environment, consumption culture and other related factors, but also threatening for the brand itself.

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## GHANA'S BANKING SECTOR CLEANUP: ITS REPERCUSSIONS ON CUSTOMER ATTITUDES TOWARDS BANKING

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### ABSTRACT

**Purpose-** This study seeks to investigate customer's attitude towards banking following Bank of Ghana's banking sector cleanup exercise with focus on market women in the Yilo Krobo municipality. This manuscript represents a starting base for similar researches to be conducted in other selected municipalities in Ghana.

**Methodology-** The study considered both the primary data source which were obtained through the use of self-administered survey questionnaires from a total of 198 conveniently selected market women in the Yilo Krobo Municipality of Ghana, and secondary data source mainly through the review of existing literatures from journals, newspapers and articles.

**Findings-** The study revealed an opposing attitude towards banking among market women, as more than 70% of market women in the municipality had their banks or financial institutions dissolved and for that matter losing their business capital and personal savings. This position has resulted in only a few market women (18%) maintaining high confidence in the banking sector. The majority of market women rated their confidence level as moderate (41%), low (33%) and no (8%), citing unpaid locked up funds, the fear of losing their savings again, loss of trust and to some extent a suspicion of political interferences in banking activities in the country as reasons for their ratings.

**Conclusion-** It is recommended that, a similar exercise should not be carried out in the future as its ripple effects on customers can further ruin their trust completely in the banking sector. Furthermore, in the wake of dissolution of any institution, a much more attention should be given to how customers will be paid as early as possible to save their businesses and livelihoods.

**Keywords:** Banking sector, clean-up exercise, customer attitudes, market women, Bank of Ghana

**JEL Codes:** G20, G21, G23

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### 1. INTRODUCTION

Attitudes are a manifestation of one's innermost emotion that replicates whether a person approves or disapprove an item or a thing (Gupta, 2007). They are a consequence of a mental process, thus are not noticeable, but could be ascertained from what people say or what they do. Simplifying these explanations, attitudes can be said to be what one likes and dislikes or the extent of confidence or uncertainty one has towards an object (Blackwell, Engel & Miniard 2001). Attitudes have hence been established as one of the vital influences on customers buying or patronage behavior in various sectors including banking (Rogers, 2010). According to Dr. Lars Perner (2010), consumer attitude encompasses consumer's beliefs, feelings, and behavioral intentions toward some object. This infers that, a consumer can hold undesirable or confident beliefs or feelings toward a product or service and all these opinions influences the decision to patronize or not (Perner, 2010). However, consumer or customer behaviors have been long-established to change with the slightest alteration in trend, market and atmosphere (EDUCBA, 2020).

As asserted by Walter, Holzle, & Ritter (2002), banking as a service industry, is primarily dependent on trust, strengthened by attitude and administered through complex financial supervision, expertise and conscious human relations. The more the

customer trusts the service provider as research indicates, the higher the perceive value of the relationship (Walter, Holzle, & Ritter, 2002). Gounaris (2005) also emphasized that, the eminence of a bank's services is inspired incidentally by trust. Even though trust is the cornerstone of the banking industry, there exist cognitive factors, which are fundamentally influenced by information accessible and this impact customer's attitude towards banking a lot. In most cases negative information's are easily analyzed by customers than positive information, especially when there are much of them (Ahluwalia, Burnkrant, and Unnava, 2000) and this influences a customer's perception resulting into a change attitude towards banking.

In recent times in Ghana, banking has taken a plunging trend resulting in an action by the Central Bank of Ghana dubbed "clean – up" exercise to sanitize the banking sector and to protect the interest and confidence of depositors subsequent to failed efforts geared at rectifying some compliance lapses through the leadership of affected Institutions (Bank of Ghana, 2019). The lapses were uncovered from an all-inclusive assessment into the operations of banks and other financial institutions in the country (Bank of Ghana, 2019). Through the assessment, compliance issues such as defiance of minimum regulatory capital required, extreme risk-taking without the obligatory risk management, use of depositor's investments to fund private ventures or businesses, frail corporate governance systems, misrepresentation of true financial position to the Central Bank and other interested Parties and finally, persistent breach of regulations of the Bank of Ghana and failure to execute on-site audit or inspections sanctions (Bank of Ghana, 2019). At the end of the exercise, a total of nine (9) Universal Banks; three hundred and forty seven (347) microfinance companies, of which one hundred and fifty five (155) had already ceased operations; thirty nine (39) micro credit companies of which ten (10) had already ceased operations; fifteen (15) savings and loans companies; Eight (8) Finance House Companies and two (2) non – Bank Financial Institutions that had already ceased operations had their licenses revoked (Business and Financial Times Online, 2019). Apart from the weight of approximately GHC 21 billion the exercise was envisaged to place on government purse (Ofori-Atta,2020), other reports suggest that jobs have been lost, entrepreneurs have lost their businesses and assets (Mante, 2020). In a study by Affum (2020), it was revealed that unaffected financial institutions especially microfinance and micro credit institutions in the Yilo Krobo Municipality experienced panic withdrawals and reduced level of cash deposits affecting their liquidity and ability to meet credit demands of their customers (Affum, 2020).

Even though the Government of Ghana has commenced refunding of lost funds of customers of affected banks as promised, most of these customers of defunct banks or financial institutions still have their funds unpaid and this has resulted in a number of public demonstrations (Nyabor, 2019; Okine, 2020; Ghana Business News, 2020). Many scholars and policy analyst have expressed their opinions on how the Bank of Ghana's exercise will or could affect the banking sector and the Ghanaian society at large. For instance, a report by the Business and Financial Times by Kwaku Anumu postulated that, the trepidation the exercise will bring as a result of the inability of customers to have access to their funds and investments, will result in a mistrust among bankers in the banking sector and this will lead to a situation where the unbanked households who naturally gravitate toward the microfinance institutions be unwilling to enter into banking relationships and for that matter hinder financial inclusion (Anumu, 2019). However, these opinions are not empirically backed hence the necessity of this research principally aimed at under studying customer's attitude towards banking following Ghana's banking sector cleanup exercise with focus on market women in the Yilo Krobo municipality. To achieve this aim, the study identifies the effects of Bank of Ghana's banking sector cleanup exercise on market women in the Yilo Krobo Municipality, assesses the patronage of Banking services among market women in the Yilo Krobo Municipality following Bank of Ghana's banking sector cleanup exercise and finally assess the confidence in the banking sector among market women in the Yilo Krobo Municipality following Bank of Ghana's banking sector cleanup exercise thus answering the following research questions;

- What are the effects of Ghana's banking sector cleanup exercise on market women in the Yilo Krobo Municipality?
- How is the patronage of banking services among market women in the Yilo Krobo Municipality following Ghana's banking sector cleanup exercise?
- Are markets women in the Yilo Krobo municipality confident in the Banking sector following Ghana's banking sector cleanup exercise?

In the next section of this paper, literature regarding the functional theory and the components of attitudes is reviewed; data and methodology is further elaborated in the third section. Findings from the study will be thoroughly analyzed and discussed in the fourth section whiles the conclusion and recommendations of this study will be in the last part of the study.



## 2. LITERATURE REVIEW

This chapter reviews the functional theory of attitudes and the ABC model of attitudes to enable us understand how the banking sector cleanup exercise by the central bank of Ghana has affected and influenced beliefs and behaviors towards banking and confidence in the banking sector among market women in the Yilo Krobo Municipality of Ghana.

### 2.1. The Functional Theory of Attitudes

Understanding the motivation of a customer's attitude is an imperious pace to changing an attitude. To hence appreciate the functional motives of customer attitudes, this paper reviews the functional theory of attitudes developed by Daniel Katz (Katz, 1937; Solomon, 2008). Katz theorizes four thinkable functions of attitudes which endeavor to enlighten the foundation and purpose a specific attitude might have to the customer (Katz, 1937).

The first and most recognized function of attitude is the Utilitarian function. Katz asserts that, utilitarian function is grounded on the ethical theory of utilitarianism; however, an individual will make decisions based exclusively on generating the utmost extent of happiness generally (Sidgwick, 1907). In other words, a customer's attitude is undoubtedly centered on a utility function when the choice revolves around the expanse of discomfort or preference it brings (Dean, 2010). The value-expressive function is the next function of attitude theorized by Katz and this is employed when a customer is grounding their attitude regarding a product or service on self-concept or vital standards (Katz, 1937). With this function, the association or reflection that a product or service has on the consumer is the foremost concern of the consumer and it's used when a consumer accepts a product or service with the intent of affecting their social identity (Solomon, 2008). The ego-defensive function which is the next function theorized by Katz is discernible when a customer feels that the use of a product or service might jeopardize their self-image (Katz, 1937). This attitude is generally psychological and difficult to understand thus a way individuals deny their own unsettling sides (Narayan, 2010). Finally, the knowledge function is prevalent in individuals who are careful about organizing and providing structures regarding their attitude or opinion of a product or service (Solomon, 2008). This type of attitude can mostly be changed by using fact-based comparisons and real-world statistics in the message strategy (Dean, 2010).

### 2.2. The ABC Model of Attitudes

Attitudes are noted to consist of three major components; a cognitive component, an affective component, and a behavioral component (Grimm, 2005; Taylor Hunter & Longfellow, 2006) and this heightens the connection between knowing, feeling, and doing (Solomon, 2008).

**Affective Component-** A customer's sentiments or moods about a particular product or brand constitutes the affective component of an attitude (Allen, Machleit, Klenine & Notani, 2005) and are mostly evaluative in nature. Affective components similarly manifest themselves as emotionally charged states (e.g., happiness, sadness, shame, disgust, anger, distress, and guilt) and such emotional states may enhance or amplify positive or negative experiences which may change as the situation changes due to unique motivations and personalities, past experiences, reference groups, and physical conditions, evaluated differently by individuals (Cohen & Areni, 1968; Johnson & Zinkhan, 1991; Jeon – Su lim & Bhargava, 1998).

**Behavioral Component-** This represents ones' tendency to respond in a certain manner toward an object or activity. According to some interpretations, the cognitive component may include the actual behavior itself. In pure marketing terms it relates to the consumer's intention to buy. That is, behavioral intentions. A series of decisions to purchase or other brand to friends would reflect the behavioral component of an attitude (Sengupta, 1998).

**Cognitive Component-** The cognitive component consists of consumer's beliefs about an object and this includes the knowledge and perceptions that are acquired by a combination of direct experience with the attitude object and related information from various sources. This knowledge and resulting perceptions commonly take the form of beliefs. The total configuration of beliefs about a brand represents the cognitive component of an attitude towards as product (Grenier & Stadler, 2009). In simple terms, cognition is an individual belief about a product or service (Dean, 2010).

Figure 1: Literature Framework of the Study

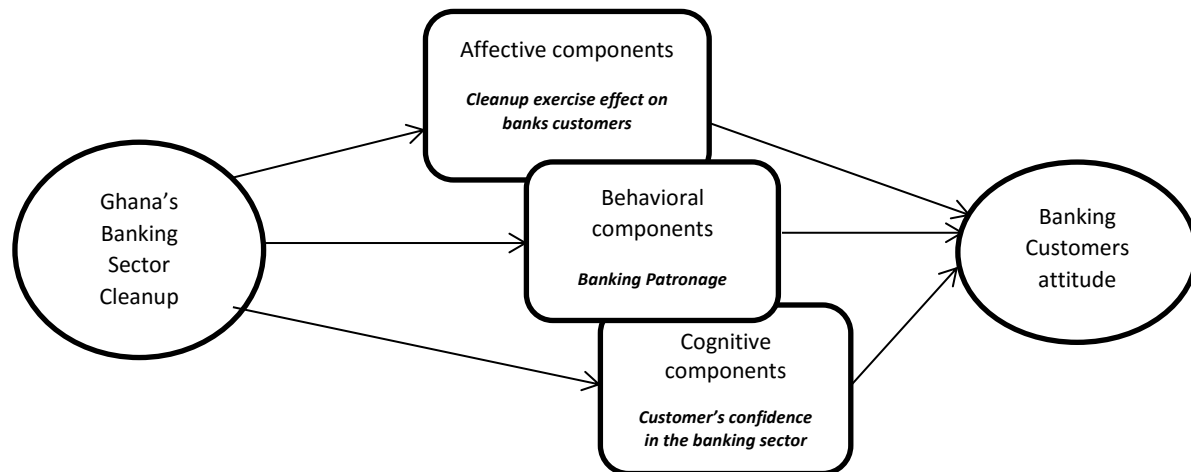


Figure 1: Frederick Affum, framework of literature in studying customer's attitude following Ghana's banking sector cleanup exercise using the ABC Model of Attitudes.

All the components of attitude work together to ascertain a customer's involvement or motivation towards a product or a service and hence its adoption as the focus of this study in ascertaining how the Bank of Ghana's cleanup exercise has affected customers' attitude towards banking in the Yilo Krobo Municipality of Ghana.

### 3. DATA AND METHODOLOGY

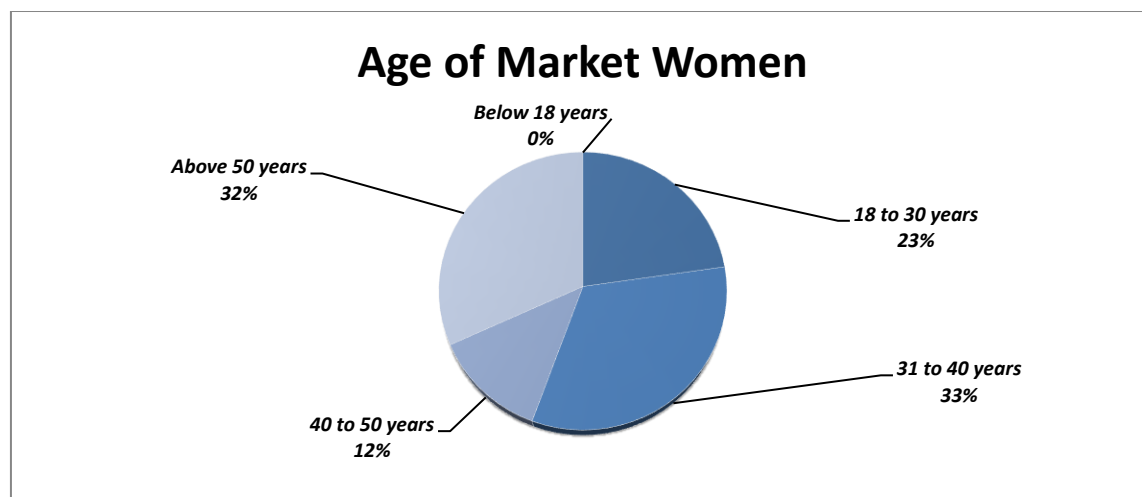
The research is a descriptive research and therefore considered both primary and secondary data for the study. Secondary data was obtained through the already existing literature from journals, newspapers, textbooks, articles whereas Primary data was obtained through the use of self-administered survey questionnaires from a total of 200 market women in the Yilo Krobo Municipality of Ghana, conveniently selected to participate in the study. The study questionnaire involved close-ended and open-ended questions catching the objectives of the research work. The close-ended questions were used primarily to limit the sort of response from market women by providing alternative responses whereas the open-ended questions were also adopted to enable the market women to be communicative in their answers in connection with the research objectives. Furthermore, the five point likert scale was adopted in evaluating the confidence of market women in the banking sector following Bank of Ghana's banking sector cleanup exercise. The questionnaires were administered by the researcher, with the help of three representatives to the selected market women at the Akutunya market, Oterkpolu market, Agogo market, and Nkurankan market all in the Yilo Krobo Municipality and they were all assisted to answer the questionnaires. The questionnaire consisted of four (4) sections. Section A; the demographic characteristics of the respondents, mainly market women, Section B; the effect of Ghana's banking sector cleans up exercise on market women, Section C; the patronage of banking services among market women following clean up exercise, Section D; the confidence in the banking sector among market women following banking sector clean up. A period of three (3) weeks was used to complete the data collection. The quantitative data collected were analyzed using Microsoft excel, simple tabular and graphical presentations.

### 4. FINDINGS AND DISCUSSIONS

The study achieved a 98% response rate from market women in the Yilo Krobo municipality portraying a very high interest in the topic under study. Out of 200 questionnaires distributed, a total number of 198 were answered fully. In ascertaining the ages of market women that participated in the study, the survey revealed that, none of the market women (0%) fell below 18 years, 45 women representing 23% fell within the ages of 18 to 30 years. Another 65 women representing 33% were within the ages of 31 to 40 years, 25 other market women forming 13% were within the ages of 40 to 50 years while another 63 market women making 32% were above 50 years of age. This is elaborated in table 1 and figure 2 below.

**Table 1: Demographic Characteristics – Ages of Respondents**

Variable	Frequency	Percentage (%)
Below 18 years	0	0%
18 to 30 years	45	23%
31 to 40 years	65	33%
40 to 50 years	25	13%
Above 50 years	63	32%
<b>Total</b>	<b>198</b>	<b>100%</b>

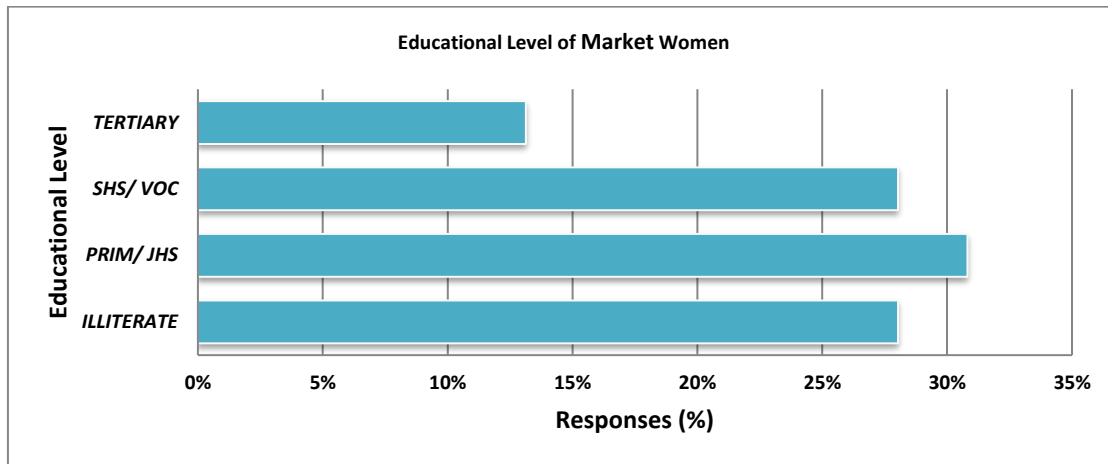
**Figure 2: Survey Data, 2020 - Ages of Respondents**

The study further ascertained the educational level of the market women as part of the survey. This was necessary to enable the researcher ascertain their level of understanding as far the topic of the research is concerned. Furthermore, this was to enable the researcher apply different techniques in communicating the questionnaires to ensure that accurate answers are provided. As shown in table 2 and figure 3 below, out of the 198 market women that responded to the questionnaires, 56 representing 28% had no formal education, 61 representing 31% had formal education up to the Primary and Junior High School level. Another 56 of the market women had attained formal education up to the Senior High School and Vocational institute's level whereas 26 representing 13% had attained tertiary education. Generally, majority of the market women who participated in the survey had formal education.

**Table 2: Demographic Characteristic – Level of Education**

Variable	Frequency	Percentage (%)
Illiterate	56	28%
Prim/ Jhs	61	31%
Shs/ Voc	56	28%
Tertiary	26	13%
<b>Total</b>	<b>198</b>	<b>100%</b>

Figure 3: Survey Data, 2020 - Educational Level of Respondents (market women)

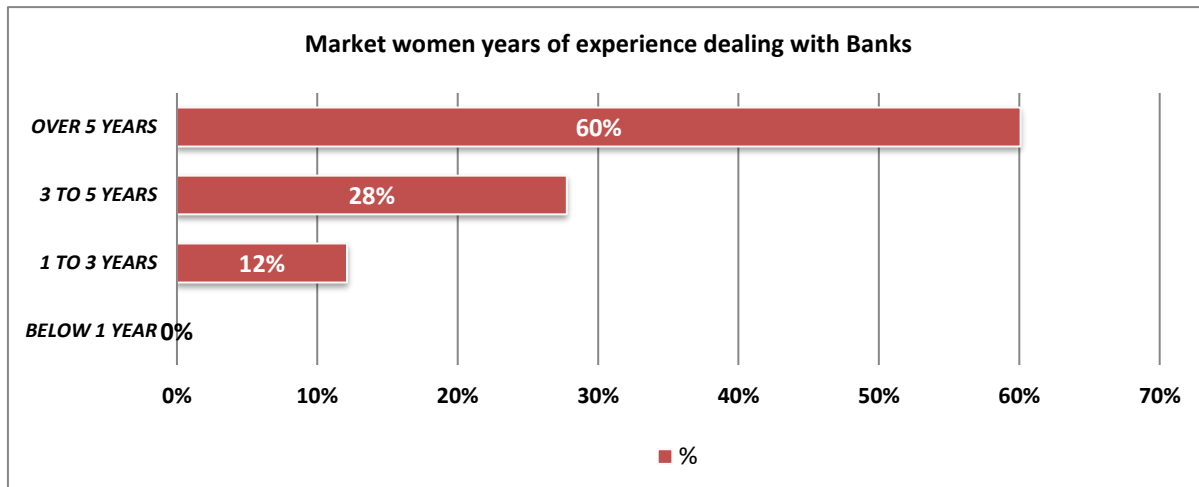


With the core objective of the research centered on ascertaining the attitude of market women to banking services, it was pertinent for the researchers to determine how many years the market women who participated in the study have dealt or operated with banks or financial institutions in the municipality. Responding to this question as shown in table 3 and figure 4 below, none of the market women had operated or dealt with Banks or financial institutions below a period of one (1) year; 24 out of 198 market women representing 12% had dealt with banks / financial institutions between the period 1 to 3 years; further 65 market women responded that they have dealt banks of financial institution between 3 to five years whereas 119 market women forming 60% had dealt with Banks / financial statements over a period of 5 years.

Table 3: Years of Experience Market Women have with Banks - Financial Institutions

Variable	Frequency	Percentage (%)
Below 1 year	0	0%
1 to 3 years	24	12%
3 to 5 years	55	28%
Over 5 years	119	60%
<b>Total</b>	<b>198</b>	<b>100%</b>

Figure 4: Survey Data, 2020 - Number of Years Market Women Dealt with Banks - Financial Institutions



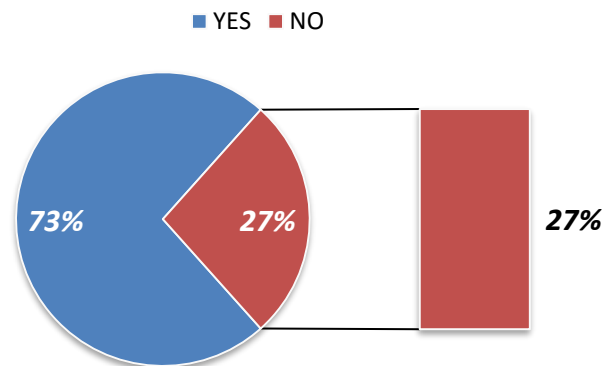
In ascertaining whether or not the market women who partook in the survey had their banks or financial institutions dissolved or licensed revoked through the cleanup exercise, responses displayed in table 4 and figure 5 elaborates that, 145 of them representing 73% responded yes while the remaining 45 women depicting 27% answered no. This means that majority (more than 70%) of market women in the Yilo Krobo municipality had their banks dissolved during the exercise.

Table 4: Did cleanup exercise affect banks or financial institutions of market women?

Variable	Frequency	Percentage (%)
YES	145	73%
NO	53	27%
<b>Total</b>	<b>198</b>	<b>100%</b>

Figure 5: Survey data, 2020 - percentage of market women who had their banks or financial institutions affected by the cleanup exercise.

Did Clean up exercise affect Banks/ Financial Institutions of Market Women?



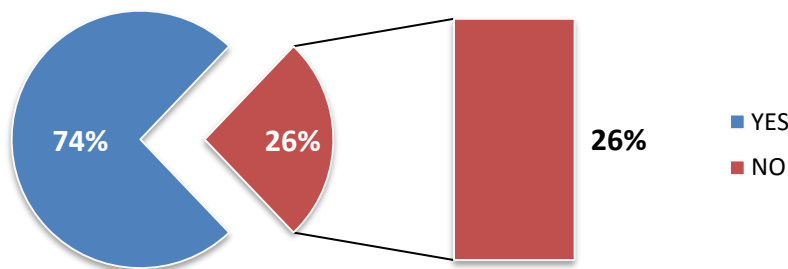
The first objective of the study was to ascertain whether or not market women have been affected personally by the cleanup exercise, and when interrogated, 147 out of the 198 forming 74% who participated in the study responded yes while the remaining 51 representing 26% answered no. This result is displayed in table 5 and figure 6 below.

**Table 5: Did cleanup exercise affect market women in the Yilo Krobo Municipality?**

Variable	Frequency	Percentage (%)
YES	147	74%
NO	51	26%
<b>Total</b>	<b>198</b>	<b>100%</b>

**Figure 6: Survey data, 2020; percentage of market women who had been affected by the Ghana’s banking sector cleanup exercise**

**Did clean up exercise affect market women in the Yilo Krobo Municipality ?**

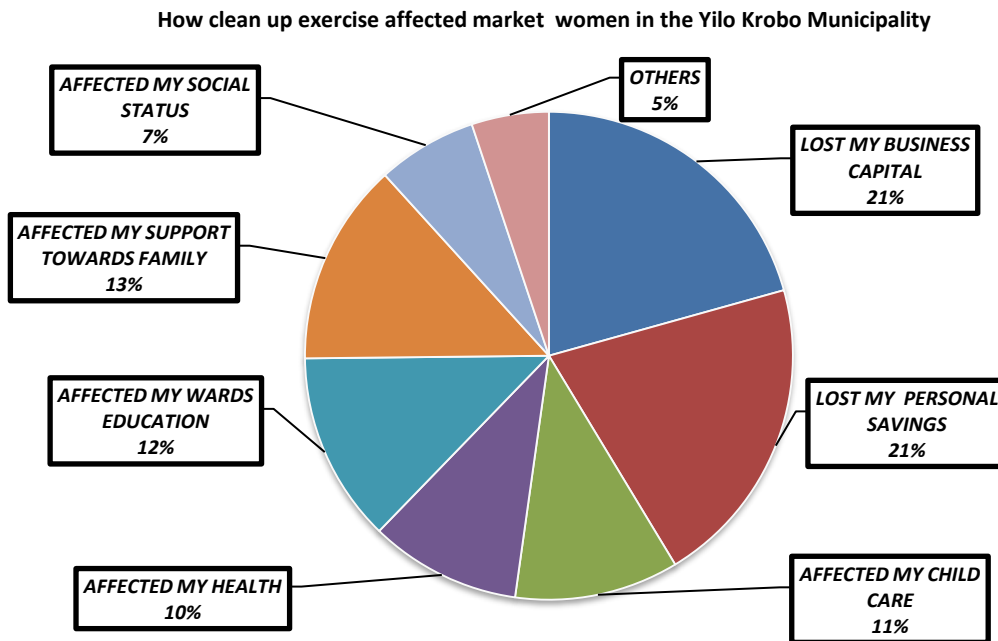


To fully satisfy the first objective, market women in the Yilo Krobo municipality, market women were required to state how they have been affected following the dissolution of their respective banks. The answers given exhibited in table 6 and figure 7 revealed that, 30 (21%) lost their business capital; another 30 (21%) lost their personal savings; 16 (11%) other women mentioned that it affected their child care, 15 (10%) had their health affected. Additional 18 (12.6%) market women mentioned that the cleanup exercise affected their wards education, 20 (13%) other mentioned that, the level of support towards their families have been affected while 10 (7%) other market women stated that their social status in their various communities have been affected. Eight (8) market women representing 5% mentioned other effects such as having their close relations been affected by way sicknesses and even resulting in deaths. Some also mentioned that they lost their jobs hence ending up in the market to earn a living.

**Table 6: Effect of Cleanup Exercise on Market Women**

Variable	Frequency	Percentage (%)
Lost my business capital	30	21%
Lost my personal savings	30	21%
Affected my child care	16	11%
Affected my health	15	10%
Affected my wards education	18	12.6%
Affected my support towards family	20	13%
Affected my social status	10	7%
Others	8	5%
<b>Total</b>	<b>147</b>	<b>100%</b>

Figure 7: Survey data, 2020; how the banking sector cleanup exercise affected market women in the Yilo Krobo municipality



The percentage of market women (26%) who had their financial institutions not affected and for that matter personally not affected by the cleanup exercise mentioned that, they saved and operated with a commercial bank in the municipality that was not affected due to its good standing with the Central Bank of Ghana, and the Rural Banks who were not included in the exercise nationwide. There were others who mentioned that, they saved with multiple banks and therefore were not affected.

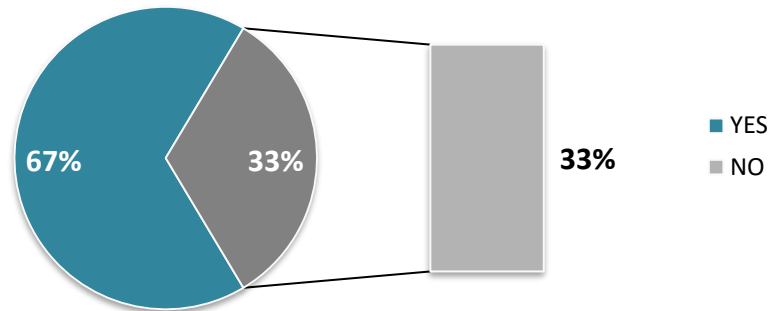
With the majority of market women been affected by the exercise, the research further quizzed to ascertain whether or not they still patronize banking services in the municipality. 133 market women representing 67% out of 198 mentioned that, they are still patronizing banking services while 65 representing 33% mentioned that they are not patronizing banking services following the cleanup exercise. Table 7 and figure 8 below displays responses from market women in the Yilo Krobo Municipality.

**Table 7: Are market women patronizing banking services after cleanup exercise?**

Variable	Frequency	Percentage (%)
YES	133	67%
NO	65	33%
<b>Total</b>	<b>198</b>	<b>100%</b>

Figure 8: Survey data, 2020; responds to whether or not market women are patronizing banking services following banking sector cleanup exercise

Are market women patronizing banking services after clean up exercise ?

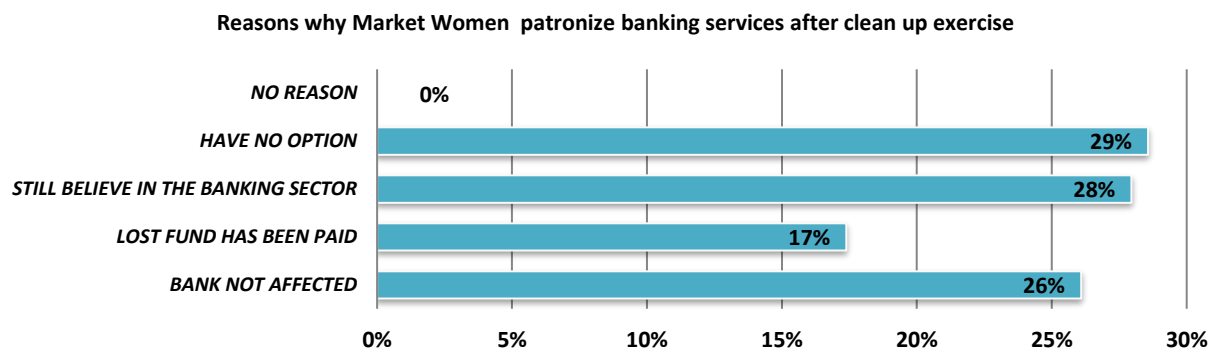


For market women that are still patronizing banking services after the cleanup exercise, 38 of them forming 29% mentioned that they are left with no option than to fall on the unaffected ones to continue to run their businesses. Another 37 (28%) of them stated that they still believe in the banking sector, other 35 representing 26% of the market women stated that, they are still patronizing because their banks were not affected whereas the remaining 23 forming 17% stated that the repayment of their lost funds by the Bank of Ghana is the reason for their continued patronage of banking services in the municipality following the cleanup exercise. This is consistent with the findings of Affum (2020) that, most customers of the defunct banks fell on the unaffected ones for credit facilities to operate their businesses. Table 8 and figure 9 below displays responses from market women in the Yilo Krobo Municipality.

Table 8: Reasons why market women patronize banking services after cleanup exercise

Variable	Frequency	Percentage (%)
Bank not affected	35	26%
Lost fund have been paid	23	17%
Still believe in the banking sector	37	28%
Have no option	38	29%
No reason	0	0%
<b>Total</b>	<b>133</b>	<b>100%</b>

Figure 9: Survey data, 2020; Reasons why some 67% of market women still patronizes banking services following the banking sector cleanup exercise of Ghana



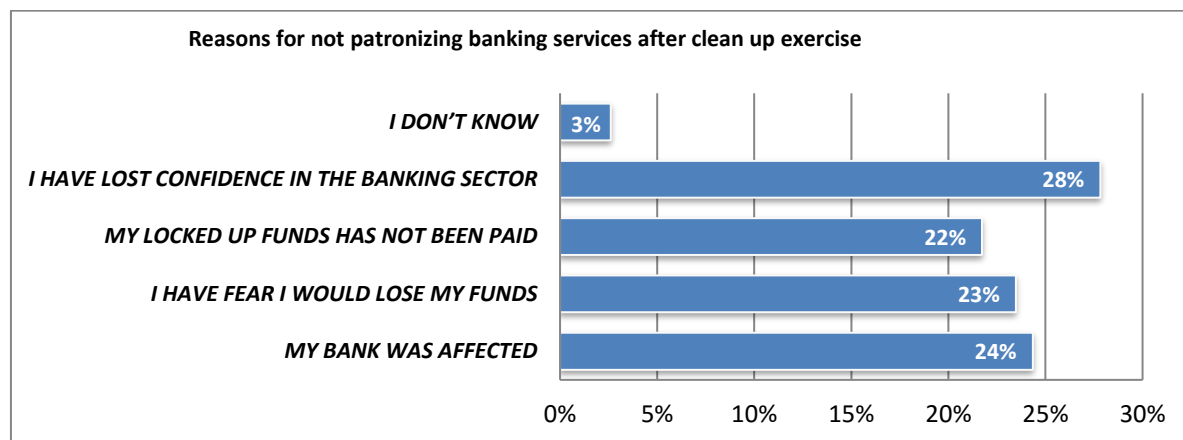


Responses exhibited in Table 9 and figure 10 below on ascertaining why 33 % of market women are not patronizing banking services after the cleanup exercise, 16 representing 24% stated that this was due to their banks or financial institutions been collapsed or affected by the exercise. Another 15 market women representing 23% feared they would lose their funds again if they should commence saving with unaffected financial institutions. Another 14 of them forming 22% stated that they are not patronizing services because their lost funds have not been paid, 18 representing 28% said they have lost confidence in the banking sector while the remaining 3 representing only 2% appeared not to have any reason for not patronizing banking services after the cleanup exercise by the Bank of Ghana.

**Table 9: Reasons why market women do not patronize banking services after cleanup exercise**

Variable	Frequency	Percentage (%)
My bank was affected	16	24%
I have fear i would lose my funds	15	23%
My locked up funds have not been paid	14	22%
I have lost confidence in the banking sector	18	28%
I don't know	2	3%
<b>Total</b>	<b>65</b>	<b>100%</b>

**Figure 10: Survey data, 2020; Reasons why 33% of market women do not patronize banking services following banking sector cleanup exercise**



To answer the third research question, market women were requested to evaluate their confidence level in the banking sector following the cleanup exercise in the Yilo Krobo municipality.

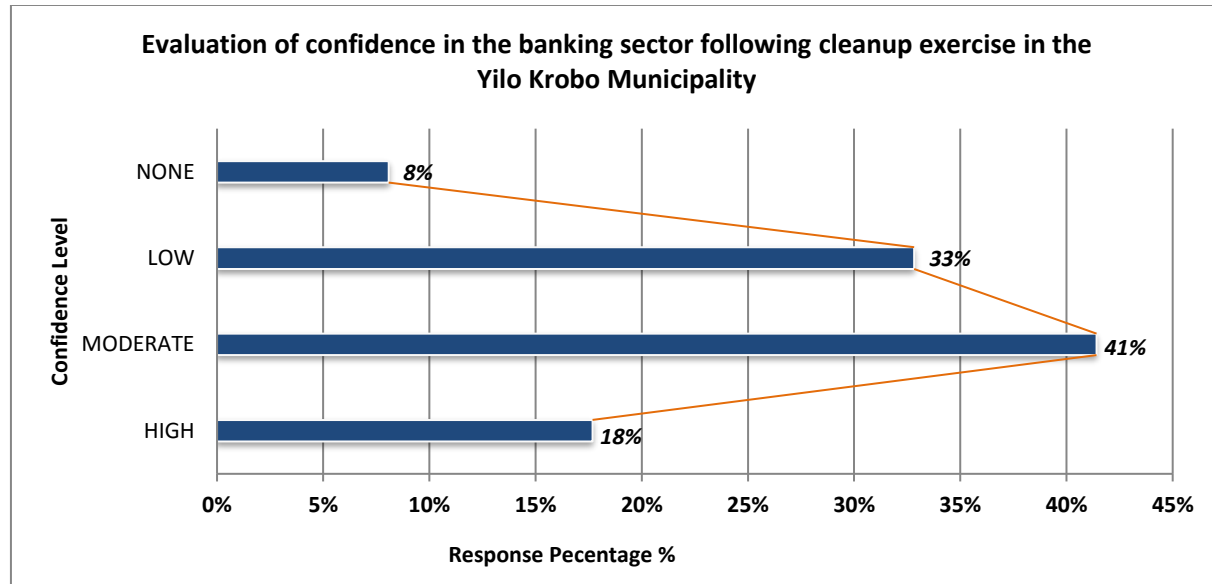
**Table 10: Evaluate of market women confidence in banking following cleanup exercise**

Variable	Frequency	Percentage (%)
HIGH	35	18%
MODERATE	82	41%
LOW	65	33%
NONE	16	8%
<b>Total</b>	<b>198</b>	<b>100%</b>

Table 10 and figure 11 shows ratings of the confidence level of market women in the banking sector following Ghana's clean up exercise. Out of the 198 market women that participated in the study, 35 representing 18% rated their confidence in the banking sector after the cleanup exercise as high. A further 82 market women representing 41% rated their confidence level in

the banking sector as moderate. Another 65 market women rated their confidence level in the banking sector low while 16 market women forming 8% rated a nil confidence in the banking sector following the cleanup exercise by the Central Bank of Ghana.

Figure 11: Survey data, 2020; evaluation of confidence of market women in the banking sector following cleanup exercise



From the responses one can deduce that, there exist some level of confidence in the banking sector among market women in the Yilo Krobo municipality, however, majority of them do not have high confidence (74%). From table 10 and figure 11 above, only 18% of market women have high confidence in the banking sector. The market women who rated their confidence level as high explained that, through the exercise, they have in a way been informed or educated to carefully investigate banks or financial institutions before subscribing to their services. For the majorities that do not have high confidence in the sector, it was ascertained that, they do not trust the banks or financial institutions as they feel there are some political interferences in the banking industry. Some of the market women also cited delayed repayment of their locked up funds as the reason for their loss of confidence in the banking sector.

## 5. CONCLUSION

The study examined the attitudes of market women in the Yilo Krobo municipality towards banking following the Bank of Ghana's banking sector cleanup exercise. The study ascertained that, even though market women in the municipality still patronize banking services, there exists some level of an opposing attitude towards banking among them in the municipality. The study revealed that, more than 70% of market women considered for the study had banks or financial institutions they save or operated their business with dissolved (license revoked) during the cleanup exercise and this resulted in majority (60%) of them losing the business capital and personal savings. The remaining (40%) also revealed that, the banking sector affected their support towards family, their wards education, their children, personal health care and social status. Others also revealed that they were indirectly affected as some close relations and friends suffered from high blood pressure, stroke and even death which affected their finances in the long run. The market women (30%) who were not affected saved with a commercial bank in the municipality which was not affected due to its good standing with the Central Bank of Ghana and the rural banks in the municipality who were generally not included in the plans of the Central Bank of Ghana for the exercise nationwide and for that matter were all not affected. Some of the market women even though had their financial institutions dissolved, revealed that they were not affected in their businesses and personal lives and this is because they saved and operated with multiple banks hence their insulation from the shocks the exercised posed on the banking population in the municipality.

However, irrespective of the fact that majority of market women were affected by the banking sector cleanup exercise, most of them (67%) continues to patronize banking services as they are not left with any other option than to fall on unaffected institutions for loans and support to sustain their businesses and livelihoods. Others also revealed that, their banks were not affected and for that matter they still believe in the banking sector. Some market women who were affected also declared that their locked up funds have been paid and hence their continual subscription to banking services in the municipality. On the

other hand, market women forming 33% who stated that they no longer patronize banking services was largely due to loss of confidence arising from the fact that that banks or financial institutions were affected and their locked up funds have not been paid. Owing to this, some market women fear they would lose their funds if they should deposit their funds with existing financial institutions with some also suspecting political interference in the Ghanaian banking sector.

These finding translated into a dilution in the confidence level among market women the Yilo Krobo municipality in the banking sector following the cleanup exercise. The studies revealed only 18% of the market women have high confidence in the banking sector. The Majority forming 41% rated their confidence level as moderate whereas the remaining market women rated a low confidence (33%) and a no confidence (8%) in the banking sector. This means that, majority of market women in the municipality do not have high confidence in the banking sector even though there exist some level of confidence.

On account of the above findings the study recommends;

- Not a similar exercise in the future as its ripple effects on the banking population, further will ruin trust in the banking sector especially among the banking population with low or without formal education. With the banking population of Ghana recorded to be 58%, triggering the formation of the National Financial Inclusion Strategy by the Ministry of Finance in 2017 with the aim of increasing Ghana's banking population from 58% to 85% by end of 2023 (MOFED, 2020), a similar exercise with even the rural banks which were not included in the past sanitization exercise can further destroy trust in the banking sector and in the long run could adversely affect the strategies to increase financial inclusion and literacy in Ghana. The bank of Ghana should rather continue but sternly enforce all banking regulations and required prudential parameters on regular basis and provide the needed support for banks and financial institutions in the case of challenges faced beyond the control of these institutions.
- That, since most of the banks or financial institutions in Ghana are privately owned, the Central Bank of Ghana should first propose and encourage mergers among financially fraught banks or a complete takeover by the Government in the case no headway in made in such proposals. This when done, will prevent collapse of struggling banks or financial institutions but rather make them stronger to continue to serve its customers as in the case of the Consolidated Bank of Ghana Bank of Ghana (2018).
- That, in the rouse of extreme cases where a bank or financial institution consistently ignores or defaults on its regulations or prudential limits and the Central Bank is left with no alternative than to withhold its license, the dissolution process must be carefully planned paying fervent attention to the banking customers. Surmising from this study, repayment of locked up funds could either renew trust or completely destroy trust in the banking sector if attention is not paid to it. For instance, in an unconvincing occasion of a bank failure, the Federal Deposit Insurance Corporation (FDIC) of America acts speedily to guard insured depositors by organizing a sale to a stronger bank, the process known as the Purchase and Assumption Transaction, or by paying depositors directly for their deposit accounts to the insured limit. With the Purchase and Assumption Transaction which is mostly the preferred and most common method in the United States of America, a healthy bank assumes the insured deposits of the failed bank. Insured depositors of the failed bank immediately become depositors of the assuming bank and have access to their insured funds. The assuming bank may also purchase loans and other assets of the failed bank. Regarding deposit payoffs, when there is no open bank acquirer for the deposits, the FDIC will pay the depositor directly by check up to the insured balance in each account. Such payments usually begin within a few days. It mostly the FDIC's goal to make deposit insurance payments within two business day of the failure of the insured FDIC (2010). This study recommends that, the standards in Ghana should be set along this line.

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