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The Effect of Market Intelligence on Marketing Mix Decision Making: a Case Study of the Ethiopian Brewery Industry

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ABSTRACT
Purpose– The purpose of this paper is to investigate the effect of market intelligence on marketing mix decision making in the Ethiopian brewery industry.
Design– Data were collected by online questionnaire from 317 respondents from the Ethiopian brewery industry and the study applied a mono-quantitative approach with cross-sectional research design. Market intelligence is represented by 5 constructs: source of data, data storage, data processing, data analysis and intelligence dissemination. On the other hand, marketing mix decision is represented by product, price, place and promotion decisions. Thus, the study has examined the simultaneous effects of market intelligence constructs on marketing mix decision constructs by performing structural equation modelling (SEM).
Findings - The SEM result reveals that the effect of market intelligence on marketing mix decision making is both positive and significant. Particularly, the effect of market intelligence on product, price, place and promotion decision making were both positive and significant. Hence, market intelligence plays a crucial role in the marketing mix decision making.
Practical implications–The findings suggested that market intelligence is an essential tool to make marketing mix decisions. Furthermore, beer manufacturing businesses can benefit from this study by focusing on market intelligence to make quality marketing decisions such as product, price, place and promotion decisions.
Originality -This paper contributes to theory by confirming the importance of market intelligence to make marketing mix decisions. The study made a methodological contribution by simultaneously examining the effect of each market intelligence construct with each marketing decision construct using SEM model.

KEYWORDS: Ethiopian beer industry, manufacturing business, marketing decision, market intelligence, marketing mix.

1. INTRODUCTION

In today's stiffer global market competition, consumer demands are affected by several factors in a fraction of seconds, specifically by a wide range of forces, daily proliferation of big data, information overloads, issues, and trends. The challenge of these forces exerts extra pressure particularly on developing countries manufacturing businesses that are currently

struggling to make quality marketing decisions to quickly respond to the volatile demand of each consumer and niche market. Most businesses work under a nonpredictable and volatile business environment to confidently make quality marketing decisions (Salguero, Resende and Fernandez, 2017:42). Moreover, the tasks of marketing managers have become complex and interrelated (Chari, Luce and Thukral, 2017:42). Furthermore, any decision making in organizations should be coherent and depends on the full information about the internal & external business environment of the company (Albescu and Pugna, 2014:55). Similarly, modern manufacturing businesses are highly sensitive for their marketing mix decision making. Marketing mix decision is the only revenue generating and a key decision in business organizations because it is closely related with the company's product characteristics such as packaging, after sales services, guarantee, nature and number of the products. It also involves implementation of the product price setting, the path of the product from manufacturer to end user and the decision of how to influence the consumer and sales of more products with appropriate promotional mechanics (Toczak, Reinecke and Kuss, 2018:13; Kotler and Keller, 2016:389). Marketing mix decisions are becoming more complex with growing demand of consumers and with the level of market expansion. The market demand is growing particularly in an emerging market at alarming rates. By 2050 approximately 56% of global financial service consumption is forecasted to emerge from an emerging market. Similarly, by 2025 the annual consumption of emerging market will total $30 trillion and contribute more than 70% of the total GDP (Kotler and Keller, 2016:36; Hattula, Schmitz, Schmidt and Reinecke, 2015:180).

Market intelligence is a crucial factor for various decision and product adaptation (Chari, Luce and Thukral, 2017:42). Most manufacturing industries are facing a growing level of uncertainty to make quality decision (Wheelen, Hunger, Hoffman and Bamford, 2018:148). Market intelligence enhances organizations financial performance and is critical to align the organization in the same direction to the market demand (Kotler and Keller, 2016:36; Hattula, Schmitz, Schmidt and Reinecke, 2015:180). Moreover, Akinkunmi (2018:25) noted that regardless of the impact level of decisions or whether it is long term or short-term decisions, every decision-making process is a continuous process that passes through dynamic business environments. Lies (2019:134) briefly explains that the goal of market intelligence is digitalization of processes of the organization, information technology and big data marketing, social media marketing and targeting tools. Soilen (2018:34) states that a lack of competitive intelligence insights exposes businesses to a challenging situation to make quality marketing decisions.

There exists a significant effect of market intelligence insight on marketing mix decision making in Ethiopian manufacturing business. The sector is operating under profound pressure of the existing global market competitiveness. Getenet (2015:165) in his study showed that most manufacturing businesses in underdeveloped African countries are strongly exposed for higher level of market competition from both domestic and foreign market competitors. In addition to the challenge of market competition, the economic transformation policy of Ethiopia also exhibited tangible practical changes on the competitiveness of the business environment (Getenet, 2015:165). To overcome the global market competition, manufacturing businesses in underdeveloped countries lack appropriate market knowledge and market intelligence insights to customize the direction of the business to fit into the prevailing level of competition (Mesfen, 2016:262). Duri (2017:237) identified that manufacturing businesses in underdeveloped countries gives low emphasis for their marketing mix decision, marketing training, marketing department capacity building and to fit marketing campaigns with the business and sales operations. In general, the challenge of this growing global market competitiveness, enhances the importance of an informed marketing mix decision making for the survival of the manufacturing business. Lack of market insight to make sound marketing mix decision clearly outlines the situation of the Ethiopian manufacturing businesses at this particular moment. This challenge basically initiates this

study to solve the practical problem and to fill the existing gaps in manufacturing businesses in Ethiopia. Therefore, the purpose of this study is to investigate the effect of market intelligence on marketing mix decision making. This article mainly addresses the following objectives:

- Describe how Ethiopian beer manufacturing industry implement market intelligence.
- Investigate the effect of market intelligence on product decision making
- Examine the effect of market intelligence on price decision making
- Investigate the effect of market intelligence on place decision making

Explain the effect of market intelligence on promotion decision making.

2. Literature Review

2.1. Market Intelligence

Jamil, Rocha, Leandro, Liliane and August (2016: 34) define market intelligence as step by step activities which can be explained as an example of controlling and understanding of market related information for strategic marketing implementations. "Market intelligence (MI)" is routine market information collected, accessed and processed which is pertinent to marketing operations of the companies particularly for the objectives of enabling market diversification, setting affordable price and to measure the growth of market shares versus other competing companies in the market (Søilen, 2016:28). More widely, Hedin, Hirvensalo and Vaarnas (2014:226) define MI as a tool for organizations to compete and grow as a result of understanding their business environment by collecting information about strategically important topics to support organizations decision making. From these definitions, market intelligence is defined as "any market information collected, gathered and analyzed from the market to support marketing decision making" and this is the definition that has been applied in this study.

Rakthin, Calantone and Wang (2016:557); Hattula et al (2015:18) indicate market intelligence as "firm's ability to acquire, assimilate, transform, and apply knowledge. It is the main indicator of firms' performance". The authors also agree that customer intelligence, competitor's intelligence and technological knowledge as main drivers which empowers firms to make quality decisions in uncertain business environments. Kotler and Keller (2016:92) posit that market intelligence is a system which supplies the current market data to managers, collected from various internal and external source.

According to Jeffry et al (2017:18), market intelligence is practiced both in financial and non-financial organizations. It adds value to the qualitative data financial analysis from publicly available data. Maheshwari (2015:27) noted the benefits of essential customer knowledge gained by market intelligence for decision making. Farias and Holzner (2017:6) noted the potential consumer role to provide essential basis for market intelligence. Selvarasu and Filipe (2017:1253) identified the importance of market intelligence to test market opportunities and market development facts.

2.2. Marketing Mix Decision Making

Navarro-García, Peris-Oritz, and Barrera-Barrera (2016:375) noted that to create impact on the business growth performance and customer satisfaction, strategic decisions intended to adapt marketing mix plays a critical role. Adaptation of marketing mix decisions to the needs and wants of the customers require clear market intelligence insight, particularly for those managers who are making decisions under uncertain business environments. Kotler and Armstrong (2017:100) noted that customer information, particularly deep insights regarding customer demand enable companies to develop competitive advantage and to build meaningful relationship with customers. Customer satisfaction is the main reason behind any marketing decision making. The decisions of the marketing mix are intended to fulfil the customer's needs and the company's business objectives. To sustain profitably in the business, companies must provide products and services that best meet the needs of their customers.

Finger et al (2021:3411) noted that decisions made on marketing significantly affect operational area of marketing decision such as product, price, and market dimensions. Another recent study by Wichmann et al (2022:516) found the effect of the marketing

mix and its role in the customer value creation process as a main tool. Current technological advancements have enabled companies to adapt each element of the marketing mix to the specific individual consumer and niche market level. Wichmann et al (2022:502) also explain that marketing mix (MM) as an essential portion of a firm's marketing strategy formulation which serves as the main bridge to connect between the company and marketplace.

Darmawan and Grenier (2021:79) asserted that marketing mix and competitive advantage play a key role for the survival of companies in competitive market environments. The authors also argue that product and service providers required to have clear market insights to formulate organizational strategy, because the marketing concept guides the entire organizational activities. Similarly, the recent study done on adaption of a game theory approach to the marketing mix as a decision-making tool in an industrial sector by Abedian et al (2022:150) asserted that 'choosing a strategy from the 4P components is not the pure application of that specific strategy, but it is about focusing on that proposed strategy to gain more profit, especially adaption of a game theory approach to the marketing mix as a decision-making tool in an industrial sector for planning and adopting optimal marketing strategies, as well as customer preferences'. The empirical study done by Lahtinen, Dietrich, and Rundle-Thiele (2020:369) identified the benefit of using the full commercial marketing mix (product, price, place and promotion) instead of using promotion approach alone in social marketing campaign context to achieve greater behavior change. From this perspective, the following hypothesis was proposed for this study:

H: *The effect of Market intelligence on marketing mix decision making is positive and significant.*

2.2.1. Product Decision Making

Lamb, Hair and McDaniel (2018:25) stated that marketing mix typically starts with the product. The heart of the marketing mix, the starting point, is the product offering and product strategy. It is hard to design a place strategy, decide on a promotion campaign, or set a price without knowing the product to be marketed Kotler and Armstrong (2017:53) defined the concept of product as a combination of goods and services that company offers to the market and mainly includes: product variety, quality, design, features, brand name, packaging, and services. Išoraitė (2016:30) also explained product as a general concept which comprises of natural product and services, experience, people, places, property right, organization, information and ideas. The author also identified five levels of product namely: the real benefits, main and expected product, added to the product, the potential of the product, and classification of product as minimum, valuable, exclusive, and unmarketable.

Several studies (Zhan et al. 2021:119; Darmawan and Grenier 2021:76; Durmusoglu; Atuahene-Gima and Calantone 2022:19; Hoskins and Griffin 2023:592; Tookanlou and Wong 2020:29; Abdullah and Rosliyati 2020:16) investigated the concept of product decision making. Business should take place in the form of products that have value for customers, namely, the product core benefits and the price that will be paid to afford it (Darmawan and Grenier 2021:76). Zhan et al. (2021:119) found that product sales are periodic in which consumers search and tag products into their list of bundles for current and future purchase decision. Consumers mostly use their cart as a set of main considerations to store their own brand selection and to monitor any price changes that can affect their purchase decision at the point of sale. Durmusoglu; Atuahene-Gima and Calantone (2022:19) asserted that when market information acquired is time sensitive, comprehensive decision making develops the quality and speed of decision making, mainly meaningfulness of a new product's marketing strategy. Hoskins and Griffin (2023:592) identified the important aspect of considering product positioning during product launch. The authors asserted that the 'product launched into larger subcategories experiences stronger short-term performance that does not directly translate into long-term performance gains'. Tookanlou and Wong (2020:29) explained that to expand the market share and revenue from the sales volume, most managers make

the decision of product line extension. However, the decision to expand the product line vertically versus horizontally is mostly debatable. The study done by Abdullah and Rosliyati (2020:16) reveals that product-market strategy, value creation, and competitive advantage significantly influence the marketing performance of the companies. Hence, this study proposed to test the following hypothesis in the Ethiopian beer manufacturing industry:

H1: *The effect of market intelligence on product decision making is positive and significant.*

2.2.2. Price Decision Making

Price is the amount of money customers must pay to obtain the product, and it broadly incorporates price list, discounts, allowances, payment period, and credit terms provided for buyers. It is the only revenue-generating material among the four elements of the marketing mix, all other elements of the marketing mix involve cost (Kotler and Armstrong, 2017:53; Kotabe and Helsen 2017:366). Tomczak, Reinecke and Kuss (2018:190) state that setting a unique price is an essential element of price which can generate considerable revenue. Equally, setting a unique price for a product negatively harm the price goal of the company, consumers trust and price satisfaction. Companies pricing policy is impacted by cross-functional processes and inputs obtained from various company departments such as finance, sales, legal division, accounting, production and tax (Kotabe and Helsen 2017:366; Išoraitė 2016:30). Tomczak, Reinecke and Kuss (2018:183) posits that unlike, other marketing mix element, price change has stronger and extremely rapid effect on the sales volume and market share of companies. Price decision requires critical thinking to make insightful decisions. Išoraitė (2016:31) noted that price decision considerably affects consumers because it is directly associated with the product value

A business can pursue their own pricing strategies based on their own price objective such as cost-oriented pricing strategies, customer-oriented pricing strategies and competitor-oriented pricing strategies. Cost, customer and competitors are the central forces that impact companies pricing strategies (Darmawan and Grenier 2021:78). Furthermore, Baidun et al (2022:79) asserted that price decision affect customer satisfaction positively and significantly. Almeida, Porto and Coelho (2020:1276) found price decision as a relevant decision of marketing mix element mainly in an emerging country by accommodating with the market competitors. Amron (2018:237) revealed that price has a significance effect on consumers in influencing their buying decision. To establish the effect of market intelligence on price decisions the following hypothesis has been proposed:

H2: *The effect of market intelligence on price decision making is positive and significant.*

2.2.3. Place Decision Making

Place decision is a holistic concept that enables companies to make their market offer available at the point of sales. The decision mainly comprises of channel decision, market coverage, location, inventory, transportation and logistics (Kotler and Armstrong 2017:53). Companies pricing practice are most dominantly affected by variation in trade margin and the length of the channel structure selected to deliver the product from the manufacturer to the final end user. The power of balance between manufacturer and product distributors require special attention during place decision making (Kotabe and Helsen 2017:372). Kotabe and Helsen (2017:4570) and Kotler and Armstrong (2017:62) noted that manufacturing companies should avail the product to the consumers at best convenient place effectively and efficiently to enhance cost-efficient delivery system.

Most consumer products pass through either direct or indirect product distribution system. Currently, with the introduction of various Internet buying and selling schemes, channels of distribution for business marketing are typically shorter and direct in which a product flows from manufacturer directly to the consumer. The advancement of technologies and internet are interrupting the channel structure of most manufacturing companies (Green and Keegan, 2015:129).

In making quality place decision making, most companies face dilemma to have an intensive distribution channel in which companies achieve strong presence of products in most relevant markets versus

exclusive and selective product distribution by using few numbers of middlemen (Tomczak, Reinecke and Kuss, 2018:202). Mostly channel of distribution serves not only as a canal of product but also serves as a pipeline for product ownership, communication, financing and risk transfer (Green and Keegan, 2015:233).

In certain market environments, the individual interest of product distribution channel members such as producers, distributors, brokers, consumers and independent traders are significantly varying. A good functioning distribution channel brings these varying interests in one page for common objective and this makes the distribution function more complex (Išoraitė 2016:32). The wide range of strategic and operational decisions involved in place decision relate with product availability at the point of sales with optimal cost is a challenging decision (Darmawan and Grenier 2021:79). Nuanmeesri (2023:19) identified that the problem of poor supply chain system in marketplace makes most business companies to fail and go bankrupt. During place decision making processes companies have to consider factors required to motivate the entire forward supply chain members. The study done by Tookanlou and Wong (2020:29) reveals that manufacturing firms depends on distribution channel members to sell their final products. As a result, they should 'have a stronger incentive to offer the customized product to their existing product line'. Consideration of this factor enables companies to target the highest market segment during place decision making. In this study, the following hypothesis regarding the effect of market intelligence on place decisions are proposed:

H3: *The effect of market intelligence on place decision making is positive and significant.*

2.2.4. Promotion Decision Making

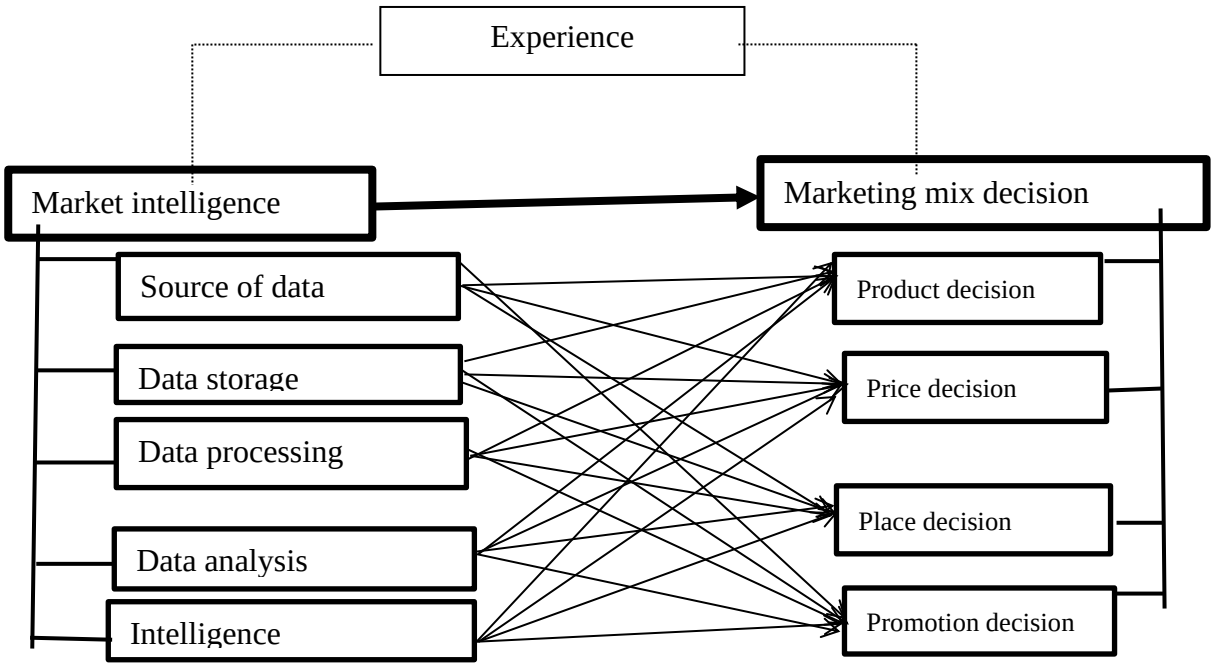
Promotion decision, which is an integral element of marketing mix, helps companies to disseminate information, encourage instant purchase and significantly influence the purchase decision of consumers (Išoraitė 2016:34). It mainly focusses on how to communicate the benefits of the product and convince the target consumers through the use of promotional mix elements such as: advertising, personal selling, sales promotion, social media and public relation. Most management teams believe that these promotional mix elements enable to meet the needs of target market and company objectives (Kotler and Armstrong 2017:55; Green and Keegan, 2015:268). The basic aim of promotion is to form communication, create favorable image for company market offer to customers to prefer the products and services during the purchase decision (Darmawan and Grenier 2021:78). Sales promotion is attributed to the actions and decisions which provide specific short-term measures, but to encourage the purchase, use, as well as by facilitating the purchase of goods and directed to the end user or intermediary. These tools used by a consumer to buy more and faster (Išoraitė, 2016:34). The effect of market intelligence on promotion decision making at the Ethiopian been manufacturing industry will be tested via the following hypothesis:

H4: *The effect of market intelligence on promotion decision making is positive and significant.*

2.3. Conceptual Framework of the Study

Kotler and Armstrong (2017:51) suggest that most companies design marketing mix namely: product, price, place and promotion strategy under its control guided by marketing strategy. Marketing analysis provides inputs and insights for decision makers. Based on a clear understanding of the business environment of the company, through strategic planning, the company decides the detail marketing mix element plan, particularly the type of product, price, place and promotion plan to be made to remain competitive in the market (Kotler and Armstrong 2017:57). The next move after having a working marketing plan is marketing implementation, in which marketing plans are turned into marketing action to address the who, where, when and how parts of detailed marketing mix of product, price, place and promotion decisions (Kotler and Armstrong 2017:56). The final activities in the marketing decision are to control and execute the detail marketing mix plan (Kotler and Armstrong 2017:59). Marketers use various tools to get market feedback from the target market. Marketing mix is a set of tactical tools that consists of

the whole activities' firms do to engage the final product users to create customer value. These marketing tools comprise of product, price, place and promotion decisions (Darmawan and Grenier, 2021:77; Kotler and Armstrong, 2017:53). Moreover, from the buyer perspective that the product should be acceptable, price should be affordable, place should be accessible, and promotion should be aware (Kotler and Armstrong 2017:53). Thus, from the above discussion of, the conceptual framework adapted for this study is presented in figure 1.



Source: adapted from Kotler and Armstrong 2017:51

Figure 1. Conceptual framework of the study

3. Methods

As already stated, the study was carried out in the beer manufacturing industry in Ethiopia. A cross sectional quantitative research design has been applied to better investigate the effect of market intelligence on marketing mix decision making and it is deductive in nature. By using this methodology, the researchers seek objectivity through testable hypotheses, hence ensuring the gathering of data that can be reported in numbers and statistics. The type of research would be descriptive-analytical research. Consequently, the results obtained were first described by using descriptive statistics and further analyzed by using correlation and regression to investigate the variable relationship under study.

Among the five breweries in Ethiopia, the population for this study was selected from only three breweries. located in west, east and central parts of the country serving the entire geographical market in Ethiopia.

The brewery selection was done by using convenient sampling method for simple and efficient administration of the data gathering. The respondents were selected by using simple random sampling methods. The inclusion and exclusion criteria of the respondents were made based on the employee's respective department in those specific breweries. Consequently, all employees who work in the commercial department in each brewery were given an equal opportunity to participate in this study. However, those employees other than commerce were excluded from this study.

Data was collected via a survey questionnaire that was administered online and the Google link was sent to the official company email address of each respondents with the special endorsement of each company's sales and marketing director to improve the rate of response. Among the total population size of 467 respondents only 320 of them fully responded to the online electronic questionnaire. The questionnaire was divided into two sections. The first section captured information regarding market intelligence constructs such as source of data, data storage, data processing, data analysis and intelligence dissemination. The second section similarly captures the information regarding the dependent construct of the study 'marketing mix decision making' constructs namely product, price, place and promotion decision making.

Accordingly, the data collected were analyzed using SPSS (Statistical Package for the Social Sciences) version 27. Moreover, AMOS (analysis of a moment structures) is also used in this study for Structural Equation Modeling (SEM), path analysis, and confirmatory factor analysis (CFA). The study applied descriptive analysis, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and Structural Equation Modelling (SEM) to analyze the data and to test the proposed hypotheses.

4. Data Analysis

Only three observations are identified as outlier by using Mahalnobis Distance (MD) scores 72.8, 81.3 and 82.4 respectively and were excluded from the dataset; hence, further data analysis was conducted using 317 observations. There is no evidence of excessive skewness and kurtosis; where the largest skewness and kurtosis values were 1.972 and 1.991 respectively. The missing data values of this study were non-ignorable data less than 10% which occurred completely at random. Regression method was used to impute the missing data value. The common method bias problem was handled using procedural (research design) (Ex ant) and statistical approach of Heman's one factor test (Ex post procedures). This study used descriptive analysis, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and structural equation modelling (SEM). EFA that was calculated reveals that the factor loading ranges from 0.593 to 0.850, which satisfy the minimum criteria and ensures items chosen to measure the variables are closely related.

The model fit summary of confirmatory factor analysis revealed that the model was a good fit with $\chi 2/DF=1.236$, $P<0.001$, RMSEA = 0.032, GFI= 0.893, RMR= 0.084, CFI= 0.986, NFI= 0.932 and PCFI= 0.809. After model moderation by employee experience the model fit summary reveals $\chi 2 =30.832$, DF=18, and $P<0.030$. The model is unconstrained model. Convergent validity established that SRW > 0.7 for all elements and AVE > 0.5 for all constructs. After moderation effect companies with low work experience scored SRW from 0.709 to 0.953 for all constructs. Companies with high experience scored SRW from 0.755 to 0.954. The AVE score ranges from 0.639 to 0.841 for low experienced and from 0.649 to 0.832 for highly experienced companies.

Furthermore, the composite reliability (CR) score ranges from 0.860 to 0.938 that all constructs demonstrated adequate composite reliability (CR). The square root of AVE value was greater than the inter-construct correlation results. Thus, the convergent and discriminant validity of the constructs are fully established. The diagonal value of the group analysis output reveals that the square root of AVE value for high and low experienced employees reveals that there is no cross loading, and the required discriminant validity was achieved. The structural equation model requirement of this study reveals that $\chi 2/DF=1.303$, $P<0.001$, RMSEA = 0.037, GFI= 0.886, RMR= 0.099, CFI= 0.982, NFI= 0.927 and PCFI= 0.820 which shows a good fit model. Table 4 reveals all the absolute fit indices, incremental fit indices and parsimony fit indices scored above the recommended cut-off point adopted by this study (Kline 2016:273, Bryne 2010:81).

5. Findings and Results of the Study

5.1. Market Intelligence Practice

The detail descriptive data statistics of market intelligence practices in Ethiopian beer manufacturing industry are presented in Table.

Table 1: Market intelligence practice of Ethiopian beer manufacturing industry

Construct	Items	Mean	SD	Skewness		Kurtosis	
				S	SE	S	SE
Source of Data (SD)	In my company we get market intelligence data from various sources to support marketing mix decisions:						
SD1	Government report	4.810	1.545	-0.746	0.162	-0.268	0.322
SD2	Primary data collected by company staffs	4.880	1.449	-0.469	0.162	-0.554	0.322
SD3	Company internal data bases	4.800	1.488	-0.518	0.162	-0.486	0.322
SD4	External electronic data bases	5.080	1.652	-0.609	0.162	-0.529	0.322
Data storage (DS)	In my company market intelligence data are stored in the following manner						
DS1	On primary data storage: internal memory	5.340	1.641	-1.247	0.162	0.771	0.322
DS2	On secondary data storage such as: removable disk	5.460	1.733	-1.054	0.162	0.004	0.322
DS3	On cloud storage	5.190	1.746	-0.822	0.162	-0.220	0.322
Data processing (DP)	Indicate how often your company's uses the following market intelligence data processing systems:						
DP1	Professional staffs	5.560	1.627	-1.303	0.162	1.057	0.322
DP2	Machines	5.220	1.621	-0.948	0.162	0.257	0.322
DP3	Combination of professionals, machine and process	4.850	1.673	-0.464	0.162	-0.518	0.322
Data analysis (DA)	How often are the following market analysis techniques listed below used in your company to make better marketing mix decisions?						
DA1	Customer analysis	5.030	1.277	-0.636	0.162	1.027	0.322
DA2	Market trend analysis	5.010	1.290	-0.691	0.162	0.906	0.322
DA3	Competitors analysis	5.560	1.179	-1.084	0.162	1.658	0.322
DA4	Consumer analysis	2.940	1.911	0.549	0.162	-0.959	0.322
Intelligence dissemination	How would you evaluate the quality of market intelligence disseminated in your company for decision makers to make informed decisions?						
ID1	Timely	4.630	1.689	-0.496	0.162	-0.824	0.322
ID2	Credible	4.970	1.599	-0.677	0.162	-0.617	0.322
ID3	Complete	4.990	1.584	-0.747	0.162	-0.248	0.322
ID4	Clear	5.080	1.677	-0.946	0.162	0.076	0.322

In table 1, market intelligence practices were explained by five constructs such as source of data, data storage, data processing, data analysis and intelligence dissemination. For the first construct 'source of data' the descriptive statistics output reveals that government report, primary data collected by company staffs, company internal data bases and external electronic data bases were the most frequently consulted source of data with a mean (standard deviation) value of 4.810 (SD=1.545), 4.880 (SD=1.449), 4.800 (SD=1.488) and 5.080 (SD=1.652) respectively. The smallest and largest standard deviation were computed for government report and external electronics data bases 1.545 and 1.652 respectively. Among others, external electronics data bases were the most frequently consulted source of data to generate market intelligence insight in Ethiopian beer manufacturing industry to make marketing mix decision. Government reports was less frequently consulted source of data to generate market intelligence in Ethiopian

beer manufacturing companies to support marketing mix decision.

Findings regarding data storage as reflected on table 1 shows that Ethiopian breweries store market intelligence data on primary data storage devices such as main memory, internal memory or prime memory attached with the devices, secondary data storage such as removable disks and cloud devices to store market data collected from various sources with mean (standard deviation) value of 5.340 (SD=1.627), 5.460 (SD=1.621) and 5.190 (SD=1.673) respectively. Moreover, the breweries mostly use professional staff, machines and combination of professionals and machines to process the data with mean (standard deviation) value of 5.560 (SD=1.627), 5.220 (SD=1.621) and 4.850 (SD=1.673) respectively. Professional staff were the main means of data processing that dominantly used by Ethiopian brewery industry.

The descriptive data computed reveals that customer analysis, market trend analysis and competitors are the most frequently practiced analysis techniques with a mean (standard deviation) value of 5.030 (SD=1.277), 5.010 (SD=1.290), 5.560 (SD=1.179) and 2.940 (SD=1.911) respectively. However, consumer analysis is less frequently used method of data analysis in Ethiopian beer manufacturing industry. Finally, Ethiopian beer manufacturing industry's market intelligence dissemination practices were assessed as timely, credible, complete and clear with mean (standard deviation) value of 4.630 (SD=1.689), 4.970 (SD=1.599), 4.990 (SD=1.584) and 5.080 (SD=1.677) respectively. The total moderation effect of the entire items included to measure market intelligence were scored a mean value ranged from 4.63 to 5.56 and standard deviation values ranged from 1.179 to 1.911.

5.2. Marketing Mix Decision making Practices.

Table 2: Marketing mix decision making practice of Ethiopian beer manufacturing industry.

Construct	Items	Mean	SD	Skewness		Kurtosis	
				S	SE	S	SE
Product decision (PRD)	Indicate the level of your agreement on Likert scale ranged from 1-S/disagree-7 S/agree						
PRD1	How do you see the importance of market intelligence insight to support product variety decision in your company? Extremely unimportant – extremely important	5.090	1.486	-0.731	0.162	-0.153	0.322
PRD2	In my company, market intelligence insight is used to make packaging decision	4.740	1.391	-0.659	0.162	-0.323	0.322
PRD3	In my company, market intelligence insight is used to make branding decision	5.070	1.457	-0.850	0.162	0.160	0.322
PRD4	Indicate the usefulness of market intelligence in your company to make product standardization decisions: Extremely unimportant – extremely important	5.060	1.482	-0.873	0.162	-0.001	0.322
PRD5	Indicate the usefulness of market intelligence in your company to make product modification decisions: Extremely unimportant – extremely important	5.000	1.564	-0.993	0.162	0.583	0.322
Price decision (PRC)	My company uses market intelligence to support the following price decisions:						
PRC1	Price setting	5.490	1.617	-1.092	0.162	0.221	0.322

PRC2	Price discount promotion	5.520	1.671	-0.966	0.162	-0.185	0.322
PRC3	To monitor the ongoing price change	5.560	1.537	-1.039	0.162	0.287	0.322
Place decision (PLC)	Please specify the level of your agreement on market intelligence importance to make the following place decision making: Extremely unimportant – extremely important						
PLC1	Channel of distribution	5.70	1.37	-1.46	0.16	1.78	0.32
PLC2	Market coverage	5.52	1.48	-0.99	0.16	0.27	0.32
PLC3	Product numeric distribution	5.37	1.52	-0.80	0.16	-0.11	0.32
PLC4	Logistics required to deliver the product	5.44	1.51	-1.00	0.16	0.32	0.32
PLC5	Function of channel	5.23	1.66	-1.00	0.16	0.30	0.32
Promotion Decision (PRM)	In my company market intelligence is used to make the following promotional decision makings:						
PRM1	Advertising	5.520	1.575	-1.334	0.162	1.315	0.322
PRM2	Personal selling	4.940	1.606	-0.765	0.162	-0.035	0.322
PRM3	Sales promotion	5.720	1.505	-1.451	0.162	1.450	0.322
PRM4	Public relation	5.450	1.683	-1.125	0.162	0.397	0.322
PRM5	Word-of-mouth	5.140	1.744	-0.925	0.162	0.062	0.322

Based on the theoretical foundations and related empirical studies, marketing mix is indicated by four factors such as product, price, place, and promotion decision. Summary statistics for these features were presented in Table 2. In Ethiopian beer manufacturing industry, market intelligence was used to make various product related decisions such as product variety, packaging, branding, standardization and modification decision with mean (standard deviation) value of 5.090 (SD=1.486), 4.740 (SD=1.391), 5.070 (SD=1.457), 5.060 (SD=1.482) and 5.000 (SD=1.564) respectively. Moreover, the companies use market intelligence to make price decisions such as price setting, price discount promotion and to monitor the ongoing price changes in the market with mean (standard deviation) value of 5.490 (SD=1.617), 5.520 (SD=1.671) and 5.560 (SD=1.537) respectively. Similarly, the companies use market intelligence to make various place decision like channel of distribution, market coverage, product numeric distribution, logistics required to deliver the product to the market and to analyze the function of channel with mean (standard deviation) value of 5.700 (SD=1.370), 5.520 (SD=1.480), 5.370 (SD=1.520), 5.440 (SD=1.510) and 5.230 (SD=1.660) respectively. Finally, the companies use market intelligence to make advertising, personal selling, sales promotion, public relation, and word-of-mouth promotional decision with mean (standard deviation) value of 5.520 (SD=1.575), 4.940 (SD=1.606), 5.720 (SD=1.505), 5.450 (SD=1.683) and 5.140 (SD=1.744) respectively. The total moderation effect of the entire items included to measure marketing mix decision were scored a mean value ranged from 4.74 to 5.72 and standard deviation value ranged from 1.368 to 1.744.

5.3. Hypotheses Testing

5.3.1. Effect of Market Intelligence on Marketing Decision Making

Table 3: Effect of market intelligence on marketing decision making

Main Hypothesis	Path			Estimate	S.E.	C.R.	P	R-square	Decision
Ha	Marketing decision	<---	Market intelligence	1.171	0.150	7.819	0.000	0.884	Accepted

SE= standard error, C.R. = critical ratio

H: The effect of market intelligence on marketing decision making is positive and significant.

Table 3 indicates that the coefficient of market intelligence is positive and significant at the level of (β=1.171, C.R.=7.819, P<0.001). This indicates that the effect of market intelligence is both positive and significant on marketing mix decision making. A one unit increase in market intelligence results 1.171 units increases on marketing mix decision making, and vice versa. The R-square value, 0.884, suggests that 88.4% of variance in marketing mix decision making is predicted by market intelligence. Thus, the study accepts the main hypothesis ***H.***

H1: The effect of market intelligence on product decision making is positive and significant.

Table 4: Hypothesis summary of the effect of market intelligence on marketing mix elements

Hypothesis	Path			Estimate	S.E.	C.R.	P	R-square	Decision
H1	Price decision	<---	MI	1.165	0.143	8.152	0.000	0.472	Accepted
H2	Product decision	<---	MI	0.939	0.121	7.747	0.000	0.566	Accepted
H2	Place decision	<---	MI	1.232	0.129	9.576	0.000	0.804	Accepted
H3	Promotion decision	<---	MI	1.355	0.146	9.305	0.000	0.822	Accepted

SE= standard error, C.R. = critical ratio, MI= market intelligence

As shown on Table 4, the coefficient of market intelligence (MI) is both positive and significant at the level of P<0.001 for the entire constructs of marketing mix decision making such as product, price, place and promotion decisions. Moreover, the effect of market intelligence is both positive and significant on product decision making at significance level of (β=0.939, C.R.=7.747, P<0.001). A one unit increase in market intelligence results 0.939 units increases on product decision making and vice versa. The overall 56.6% of variance observed in product decision making was explained and predicted by market intelligence. Thus, the study accepts ***H1***.

H2: The effect of market intelligence on price decision making is positive and significant.

Similarly, marketing intelligence has positive and significant effect on price decisions at significance level of (β=1.165, C.R.=8.152 and P<0.001). A one unit increase in market intelligence results 1.165 unit increase in price decision. Furthermore, 47.2% of the variations observed in price decision is predicted by market intelligence. Thus, the study accepts ***H2.***

H3: The effect of market intelligence on place decision making is positive and significant.

The second largest significant and positive effect of market intelligence is observed for place decision making at the level of (β=1.232, C.R.=9.576 and P<0.001). A unit increase in market intelligence results place decision making to increase by 1.232 and vice versa. The result computed reveals that

80.4% of the variations observed in place decision making is predicted by market intelligence. Thus, the hypothesis ***H3*** is accepted.

H4: The effect of market intelligence on promotion decision making is positive and significant.

Finally, the effect of market intelligence was both significant and positive on promotion decision making at the level of (β=1.355, C.R.=9.305 and P<0.001). A one unit increase in market intelligence results 1.355 unit increases in promotion decision making. Therefore, from the computed statistics 82.2% of the variations observed in promotion decision making is predicted by market intelligence. Thus, the study accepts ***H4.***

5.4. Moderation Effect of Experience

Employee work experience was taken as a moderator variable to assess the effect of market intelligence on marketing mix decision making. As a result, the following moderation effect of hypothesis was tested:

Hm: *The effect of market intelligence on marketing mix decision was stronger on companies with highly experienced employees than low experienced employees.*

Table 5: The moderation effect of structural equation modelling summary of group analysis

Fit Indices	Statistics	Unconstrained	Constrained	Difference	Decision
Chi-square	DF	586	624	38	Unconstrained
	$\chi 2$	723.958	783.667	59.709	
	P	0.000	0.000	0.014	
Absolute Fit indices	RMSEA	0.032	0.034		
	GFI	0.821	0.808		
	SRMR	0.0476	0.0549		
Incremental Fit Indices	CFI	0.972	0.968		
	NFI	0.871	0.861		
Parsimony Fit Indices	PCFI	0.811	0.860		

The above structural equation modelling computed for low and high experienced employees reveals that there is 38, 59.709 and 0.014 scored differences between the unconstrained and constrained model on the degree of freedom, chi-square, and significance level respectively. As a result, employee experience level of moderation effect is found unconstrained. Thus, the hypothesis ***Hm*** is accepted.

Table 6: Hypothesis test result of moderator effect between market intelligence and marketing mix decision

Group	Marketing mix		Market Intelligence	Estimate	S.E.	C.R.	P	R-square
Single Effect				1.171	0.150	7.819	0.000	0.884
Low experience	MM	<---	MI	.918	.186	4.936	0.000	0.792
High experience	MM	<---	MI	1.406	.243	5.779	0.000	0.962

The statistics computed in above Table 6 to assess the moderation effect reveals that the effect of employee work experience in moderating the effect of market intelligence on marketing mix decision making is significant at (β=0.918, C.R. =4.936, P<0.001) for low experienced employee and (β=1.406, C.R. =5.779, P<0.001) for high experienced employee. Moreover, a one unit increase in market intelligence causes low and high-level experienced employee companies marketing mix decision making by 0.918 and 1.406 level respectively. Thus, the effect of high employee experience is more impactful than low level employee experience in moderating the effect of market intelligence on marketing mix decision.

Table 7: Hypothesis test result of moderator effect between market intelligence with product, price, place, and promotion decisions

	Low Experience					High Experience				
	Estimate	S.E.	C.R.	P	R-square	Estimate	S.E.	C.R.	P	R-square
PRC	.885	.177	4.998	0.000	0.316	1.434	.236	6.076	0.000	0.609
PRD	.941	.163	5.764	0.000	0.609	.887	.177	5.019	0.000	0.481
PLC	.929	.137	6.775	0.000	0.750	1.527	.230	6.626	0.000	0.856
PRM	1.238	.176	7.051	0.000	0.869	1.401	.228	6.145	0.000	0.780

The structural equation model computed in the above Table 7, indicates that the moderation effect of employee work experience on the effect of market intelligence on product decision (β=0.941, C.R. =5.764 P<0.001), price decision (PRC) (β=0.885, C.R. =4.998, P<0.001), place decision (PLC) (β=0.929, C.R. =6.775, P<0.001) and promotion decision (PRM) (β=1.238, C.R. =7.051, P<0.001) were significant for low experienced employees company. A one unit increase in market intelligence causes low experienced employee company's product, price, place, and promotion decision to increase by 0.941, 0.885, 0.929 and 1.238 level respectively. Similarly, the moderation effect of employee higher level work experience in moderating the effect of market intelligence on product decision (PRD) (β=0.887, C.R. =5.019, P<0.001), price decision (PRC) (β=1.434, C.R. =6.076, P<0.001), place decision (PLC) (β=1.527, C.R. =6.626, P<0.001) and promotion decision (PRM) (β=1.401, C.R. =6.145, P<0.001) were significant for high experienced employees. A one unit increase in market intelligence causes high experienced employee company product, price, place, and promotion decision to increase by 0.887, 1.434, 1.527 and 1.401 level respectively.

6. Conclusion and Recommendation

6.1. Conclusion

This study was carried out to investigate the effect of market intelligence on marketing mix decision making. Our study finding reveals that the effect of market intelligence on marketing mix decision making was both significant and positive. A one unit increase in market intelligence results on 1.171 units increases on marketing mix decision, and vice versa. In general, market intelligence explains 88.4 % of variances observed in marketing mix decision making in this study.

Moreover, Ethiopian beer manufacturing industries consult government report, primary data collected by company staffs, company internal data bases and external electronic data bases to gather market intelligence data. Primary data storage devices such as main memory, internal memory or prime memory attached with the devices, secondary data storage devices such as removable disks and cloud devices are the main data storage tools in Ethiopian beer manufacturing industry. The breweries mostly use professional staff, machines and a combination of professionals and machines to process the data. Customer, market trend and competitor's analysis are the most frequently practiced analysis techniques in Ethiopian beer industry. Finally, the intelligence dissemination practices of the industry were timely, credible, complete and clear for users. Moreover, the study finding further reveals that:

- The effect of market intelligence is both significant and positive in product decision making. Moreover, the more emphasis given for data processing, data analysis and intelligence dissemination positively and significantly influence product decision making. However, the effect of source of data and data processing were insignificant on product decision making.
- Marketing intelligence has positive and significant effect on price decisions. Also, higher emphasis provided for source of data, data storage and data processing positively and significantly influence price decision making. However, the effect of data analysis and intelligence dissemination were insignificant on price decision making.
- The second largest significant and positive effect of market intelligence is observed for place decision making. A

unit increase in market intelligence results place decision making to increase by 1.232 and vice versa. The more beer manufacturing industry provide sufficient focus for data storage, data processing, data analysis and intelligence dissemination positively and significantly influence place decision making. But the effect of source of data was insignificant for place decision making,

- The effect of employee experience is significant in moderating the effect of market intelligence on marketing mix elements such as product, price, place, and promotion decisions.
- Finally, the effect of market intelligence was both significant and positive on promotion decision making. The finding of this study reveals that the more emphasis given for data storage, data processing, data analysis and intelligence dissemination positively and significantly impact promotion decision making. However, the effect of sources of data was insignificant on promotion decision making.

6.2. Limitation and Future Research Area

This study was conducted by using cross-sectional research design, which is prone to common method biases. It is suggested that future researchers use longitudinal data to ensure the finding consistency through the time. Moreover, the study is delimited in scope within Ethiopian beer manufacturing businesses. The future researchers are advised to include other manufacturing business sectors to fully understand the effect of market intelligence on marketing decision making in manufacturing businesses.

Furthermore, the study is delimited by its theoretical scope. The study empirically tested only the effect of market intelligence on traditional marketing mix elements such as product, price, place and promotion decisions. Thus, the future researchers are advised to investigate the effect of market intelligence on the entire extended marketing mix elements such as product, price, place, promotion, people, processes, and physical evidence to comprehensively understand the concept.

6.3. Managerial Implication

The study gives insight for managers and practitioners to improve the culture of the existing focus provided for intelligence-driven decision-making practice in their respective organizations. Furthermore, the result draws beer manufacturing company's attention to preparing strong and adaptive organizational structure that best fits or that best outfits the competitor's organization structure by putting into consideration the relevance of market intelligence to make marketing decisions. The study result reveals the importance of market intelligence insight on marketing mix elements such as: product, price, place, and promotion decisions. Consequently, research and advertising agencies could use this study to provide important market intelligence insights for the beer manufacturing companies to reinforce the data driven capability of managers to make marketing mix decision that can assist the beer industry to improve their competitiveness in the Ethiopian context.

Moreover, this study contributes towards building effective and sound decision-making capability of manufacturing business managers by showing the importance of market intelligence insight during marketing mix decision making. The study also underscores the importance of market intelligence to make the right product, price, place and promotion decision to successfully ensure the profitability of the company and further to contributes to the overall economic growth of the country. The study also supports the government body particularly the ministry of trade and industry in order to give high emphasis for future market intelligence infrastructural development.

The general findings suggested that market intelligence is an essential tool to make sound marketing decisions, and the future of marketing is also immensely affected by the level of quality decision making by companies. Furthermore, manufacturing businesses can benefit from this study by focusing more on market intelligence to make quality marketing decisions, mainly to make product, price, location, and promotion decisions to quickly respond to the volatile demand of their customers of their customers in the competitive market environment today.

6.4. Theoretical Contribution

This paper contributes to theory by confirming the importance of market intelligence to make marketing mix decisions. The study made a methodological contribution by simultaneously examining the effect of each market intelligence construct with each marketing decision construct using SEM model.

The study also contributes to existing studies as a starting point for expanding the literature on the role of marketing intelligence in shaping the future marketing decision making of the manufacturing companies especially in developing countries such as Ethiopia. The study also gives a holistic view by providing a particular attention for market intelligence cycles to make quality marketing decision making in manufacturing business. Market intelligence cycles are adversely affected by the current technological advancement and with alarming growth of artificial intelligence. Thus, the study fills the gaps of the existing literature and study found between market intelligence and marketing mix decision making by providing empirical evidence on the simultaneous effect of market intelligence constructs on marketing mix decision making constructs by drawing attention of manufacturing business on the future of market intelligence to make quality marketing decision making.

REFERENCES

Abdullah, Y., & Rosliyati, A. (2020). The Product Market Strategy, Value Creation, and Competitive Advantages as a Determinant Factor of Marketing Performance. In *International Journal of Supply Chain Management* (Vol. 9, Issue 3). http://excelingtech.co.uk/

Abedian, M., Amindoust, A., Maddahi, R., & Jouzdani, J. (2022). A game theory approach to selecting marketing-mix strategies. *Journal of Advances in Management Research*, *19*(1), 139–158. https://doi.org/10.1108/JAMR-10-2020-0264

Akinkunmi, M. (2018) 'Data Mining and Market Intelligence'. Mouncey, P. (2016) 'Book Review: Creating Value with Big Data Analytics: Making Smarter Marketing Decisions', *International Journal of Market Research*, 58(5), pp. 761–764. doi:10.2501/ijmr-2016-045

Albescu, F., Pugna, I.B., (2014), 'Marketing intelligence - the last frontier of business in formation technologies', *Romanian Journal of Marketing*. Jul-Sep 2014, Issue 3, p55-68.

Almeida, M. I. S. de, Porto, R. B., & Coelho, R. L. F. (2020). How marketing balances the battle between premium and regular products? Brand sales dynamics in an emerging market. *International Journal of Emerging Markets*, *15*(6), 1265–1286. https://doi.org/10.1108/IJOEM-06-2019-0457

Amron, A. (2018). The Influence of Brand Image, Brand Trust, Product Quality, and Price on the Consumer's Buying Decision of MPV Cars. *European Scientific Journal, ESJ*, *14*(13), 228. https://doi.org/10.19044/esj.2018.v14n13p228

Armstron G. and Kotler Ph. (2017) Marketing: an introduction. 13th ed. Pearson Education, Inc. USA.

Bagheri Tookanlou, P., & Wong, H. W. (2020). Product line design with vertical and horizontal consumer heterogeneity: the effect of distribution channel structure on the optimal quality and customization levels. *European Journal of Marketing,* 55(1), 95-131. https://doi.org/10.1108/EJM-04-2019-0333

Baidun, A., Prananta, R., Ade, M., Harahap, K., & Yusuf, M. (n.d.). *Effect of Customer Satisfaction, Marketing Mix, and Price in Astana Anyar Market Bandung*. https://doi.org/10.24256

Byrne, B.M., 2013. *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. Routledge.

Chari, M. D. R., Luce, K. and Thukral, I. (2017). 'Mastering the market intelligence challenge', *MIT Sloan Management Review*, 58(2), pp. 41–49. Available at: https://search.proquest.com/docview/1875399246?accountid=12217%0Ahttp://link.periodicos.capes.gov.br/sfxlcl41?url_ver=Z39.88-

2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&sid=ProQ:ProQ%3Aabicomplete&atitle=Mastering+the+Market+Intelligence+C.

Darmawan, D., & Grenier, E. (2021). Competitive Advantage and Service Marketing Mix. In *Journal of Social Science Studies* (Vol. 1, Issue 2).

Durie, A. D. (2017) 'Marketing Strategies of Textile Companies: the Case of Selected Medium and Large Ethiopian Textile Companies', thesis, Addis Ababa, University of South Africa, pp. 1–269, Research direct data base.

Durmusoglu, S. S., Atuahene-Gima, K., & Calantone, R. J. (2022). Marketing strategy decision making in new product development: direct effects and moderation by market information time sensitivity and analyzability. *European Journal of Innovation Management*. https://doi.org/10.1108/EJIM-11-2021-0575

Farias, A. R. and Holzner, L. (2017). 'Consumer based market intelligence: behavioral boundations of an energy control platform—end user profile for behavioral change', p*roceedings*, 1(7), pp. 687. DOI: 10.3390/proceedings1070687.

Finger, M. E., Lacerda, D. P., Camargo, L. R., Piran, F. S., Cassel, R. A., & Morandi, M. I. W. M. (2022). Impacts of marketing decisions on delivery performance and flexibility of the operations area. *International Journal of Productivity and Performance Management*, *71*(8), 3395–3416. https://doi.org/10.1108/IJPPM-05-2020-0238

Getenet A. (2015), 'Overcoming Policy Barriers to Deny Famine a Future in Ethiopia, paper presented at the International Conference on Poverty and Development in Ethiopia: Challenges and Options*', Graduate School Auditorium of Addis Ababa University*, May 6-7, 2005, Organized by IDR/AAU, Addis Ababa, Ethiopia.

Green, W.J.K.M.C. and Keegan, W.J., 2015. Global marketing. *Jakarta: Pearson*.

Hattula, J. D., Schmitz C., Schmidt M. and Reinecke S. (2015). 'Is more always better? An investigation into the relationship between marketing influence and managers' market intelligence dissemination', *International Journal of Research in Marketing*. Elsevier B.V., 32(2), pp. 179–186. DOI: 10.1016/j.ijresmar.2015.02.001.

Hedin, H., Hirvensalo, I. and Vaarnas, M. (2014), *The hand book of market intelligence understanding, competes, and grows in global markets*, 2nd ed., John Wiley & Sons, Ltd.

Hoskins, J. D., & Griffin, A. (2023). Market selection and product positioning decisions' implications for short- and long-term performance: evidence from the US music industry. *Journal of Product and Brand Management*, *32*(4), 582–599. https://doi.org/10.1108/JPBM-01-2022-3835

Išoraitė M. (2016) "MARKETING MIX THEORETICAL ASPECTS" International Journal of Research – Granthaalayah, Vol. 4, No. 6 (2016): 25-37. https://doi.org/10.5281/zenodo.56533

Jamil, G. L., Rocha, D.S., Leandro, H., Jamil, L. C., Vieira, A.A.P. (2016) 'How Information Architecture Contributes to Define a Framework for a Market Intelligence System Development', *International Journal of Privacy and Health Information Management*, 4(2), viewed (06 January 2016), pp. 19–37. Doi: 10.4018/IJPHIM.2016070102.

Jeffery, R., Lindstrom, R., Pattie, T. and Zerzan, N., 2017. The Bank's Market Intelligence Function. *Bank of England Quarterly Bulletin*, p. Q1.

Kline, R.B., 2016. *Principles and practice of structural equation modeling*. Guilford publications.

Kotabe M. and Helsen K. (2017). *Global marketing management*. 7th ed. John Wiley & Sons, Inc, USA.

Kotler Ph. And Keller K. L. (2016). *Marketing management*. 15th ed. Pearson Education, Inc., England.

Lahtinen, V., Dietrich, T., & Rundle-Thiele, S. (2020). Long live the marketing mix. Testing the effectiveness of the commercial marketing mix in a social marketing context. *Journal of Social Marketing*, *10*(3), 357–375. https://doi.org/10.1108/JSOCM-10-2018-0122

Lamb, C.W., Hair, J.F. and McDaniel, C., 2018. MKTG 12. *Boston, MA: Cengage Learning*.

Lies, J. (2019). 'Marketing intelligence and big data: digital marketing techniques on their way to becoming social engineering techniques in marketing', *International Journal of Interactive Multimedia and Artificial Intelligence*, 5(5), p. 134. DOI: 10.9781/ijimai.2019.05.002.

Maheshwari A.K (2015). *Business intelligence and data mining*. Mark Ferguson (Editor), Business Expert Press, LLC, New York.

Mandal, P.C. (2017) Marketing intelligence: roles in business decision-making. In *Int. J. Business Forecasting and Marketing Intelligence*, Vol. 3, Issue 4.

Mesfin, W., M., (2016), 'Market Oriented Innovation and Competitiveness: Empirical Investigation into Ethiopian Manufacturers' Strategic Orientations and Outcomes'. *University of South Africa (Doctoral research)*, viewed (October 2016), UNISA library direct database

Navarro-García, A., Peris-Oritz, M. and Barrera-Barrera, R. (2016). 'Market intelligence effect on perceived psychic distance, strategic behaviors and export performance in industrial SMEs', *Journal of Business and Industrial Marketing*, 31(3), pp. 365–380. DOI: 10.1108/JBIM-03-2013-0065.

Nuanmeesri, S. (2023). Mobile application for the purpose of marketing, product distribution and location-based logistics for elderly farmers. *Applied Computing and Informatics*, *19*(1–2), 2–21. https://doi.org/10.1016/j.aci.2019.11.001

Rakthin, S., Calantone, R. J. and Wang, J. F. (2016). 'Managing market intelligence: the comparative role of absorptive capacity and market orientation', *Journal of Business Research*. Elsevier Inc., 69(12), pp. 5569–5577. DOI: 10.1016/j.jbusres.2016.03.064.

Salguero, G.C, Resende, P.C. Jr., and Fernández, I.A. (2017), 'Proposal of an assessment scale in competitive intelligence applied to the tourism sector', *Journal of Intelligence Studies in Business*, 7(2), viewed (20 February 2017), PP: 38-47, https://ojs.hh.se/index.php/JISIB/article/view/199

Selvarasu, A. and Filipe, J., 2017. Editorial Note-Marketing intelligence, project management, financial and economic implications. *International Journal of Latest Trends in Finance and Economic Sciences*, (1), pp.1253-1254.

Søilen, K.S. (2017). Why care about competitive intelligence and market intelligence? The case of Ericsson and the Swedish Cellulose Company', Journal of Intelligence Studies in Business. 7 (2) PP. 27-39.

Tahmasebifard, H. (2018) The role of competitive intelligence and its sub-types on achieving market performance. *Cogent Business and Management*, *5*(1), 1–16. https://doi.org/10.1080/23311975.2018.1540073

Tomczak T., Reinecke S., Kuss A. (2018). *Strategic marketing market-oriented corporate and business unit planning*. Springer Fachmedien, Wiesbaden GmbH, Germany.

Wheelen T.L., Hunger J. D., Hoffman A. N. and Bamford C. E. (2018). *Strategic management and business policy globalization, innovation and sustainability*. 5th ed. Pearson Education Limited, United Kingdom.

Wichmann, J. R. K., Uppal, A., Sharma, A., & Dekimpe, M. G. (2022). A global perspective on the marketing mix across time and space. *International Journal of*

Research in Marketing, *39*(2), 502–521. https://doi.org/10.1016/j.ijresmar.2021.09.001

Zhang, C., Zhou, G., Lu, Q., & Chang, F. (2017). Graph-based knowledge reuse for supporting knowledge-driven decision-making in new product development. *International Journal of Production Research*, *55*(23), 7187–7203. https://doi.org/10.1080/00207543.2017.1351643