The Role of Marketing Intelligence in Improving the Efficiency of the Organization: An Empirical Study on Jordanian Hypermarkets

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ABSTRACT In today's competitive business environment, marketing intelligence plays a crucial role in improving the efficiency of organizations in hypermarkets in Jordan. The purpose of this study is to explore the role of marketing intelligence in improving the efficiency of hypermarkets in Jordan. The paper discussed the concept of marketing intelligence, the importance of marketing intelligence in hypermarkets, the benefits of marketing intelligence, and the challenges that hypermarkets may face while using marketing intelligence. The study conducted on a convenience sample consisting of 256 respondents showed that there is an impact of market research, competition intelligence, and consumer intelligence as the main dimensions of marketing intelligence on the efficiency of hypermarkets in Jordan. While there was no effect of the dimensions of marketing analytics and product intelligence on the efficiency of hypermarkets in Jordan. The study also provided a set of important recommendations for the companies surveyed.

KEYWORDS: marketing intelligence, market research, competition intelligence, consumer intelligence, marketing analytics, product intelligence, organizational efficiency, Hypermarkets, Jordan.

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1. INTRODUCTION

Marketing intelligence gathers, analyses, and interprets data about the market, customers, competitors, and environment to make informed decisions. Identifying market opportunities, understanding consumer behaviour, and developing effective marketing strategies are all crucial marketing functions (Gottfried, Hartmann, & Yates, 2021). Due to the growing number of players in the Jordanian market, hypermarkets face intense competition (Al-Hawary & Obiadat, 2021). Marketing intelligence is therefore essential for hypermarkets to gain a competitive edge and improve their efficiency (Mulekye, 2018). The dimensions of marketing intelligence which be involved in this study: Market Research which addresses gathering and analyzing data on customers, competitors, and market trends. and competitive intelligence that illustrates monitoring and analyzing the actions and strategies of competitors (Lies, 2019). In addition, consumer Intelligence discusses understanding the needs, preferences, and behaviour of customers (Mogaji, Soetan, & Kieu, 2021). And product Intelligence that analyzes product and service features, benefits, and limitations. Moreover, marketing analytics uses statistical methods and models to analyze data and make informed decisions (Birjali, Kasri, & Beni-Hssane, 2021). On the other hand, the dependent variables include; Operational Efficiency, financial Efficiency, human Resource Efficiency, customer Efficiency, and Innovation Efficiency, which will be measured collectively (Madanat & Khasawneh, 2018). The researcher's selection of hypermarkets in Jordan came because of its wide range of products, which in turn tend to attract a larger segment of consumers. Thus, the controversy remains related to the reality of the efficiency of these markets in terms of their human resources and operational efficiency, in addition to innovation efficiency (Shao, Hu, Cao, Yang, & Guan, 2020). This opens the way for the current study to research the main issue, for which the study questions were developed as follows:

what is the role of Market Research in improving the efficiency of Hypermarkets in Jordan?
what is the role of Competitive Intelligence in improving the efficiency of Hypermarkets in Jordan?
what is the role of Consumer Intelligence in improving the efficiency of Hypermarkets in Jordan?
what is the role of Product Intelligence in improving the efficiency of Hypermarkets in Jordan?
what is the role of Marketing Analytics in improving the efficiency of Hypermarkets in Jordan?

2. LITERATURE REVIEW

2.1 Importance of Marketing Intelligence in Hypermarkets

The importance of marketing intelligence for hypermarkets in Jordan lies in the fact that it helps them to understand the market and how consumers behave (Al-Adamat, et al., 2023). To develop products and services that meet the needs of their customers, hypermarkets can use marketing intelligence to identify their needs and preferences (Mandal, 2017). In addition, marketing intelligence can help hypermarkets identify their competitors’ strengths and weaknesses, allowing them to develop strategies to gain a competitive advantage (Keiningham, et al., 2020). By using marketing intelligence, hypermarkets can make informed decisions about pricing, promotion, and distribution, which can help them to improve their efficiency (Yoseph, 2023).

2.2 Benefits of Marketing Intelligence

Marketing intelligence provides several benefits to hypermarkets in Jordan. Firstly, it helps hypermarkets to identify market opportunities and develop effective marketing strategies (Bader, Al-Alwan, & Twaiissi, 2023). Secondly, marketing intelligence helps hypermarkets to understand the needs and preferences of their customers, which can help them to improve customer satisfaction and loyalty.
Thirdly, marketing intelligence helps hypermarkets to identify the strengths and weaknesses of their competitors and develop strategies to gain a competitive advantage (Mandal, 2022). Finally, marketing intelligence helps hypermarkets to make informed decisions about pricing, promotion, and distribution, which can help them to improve their efficiency (Kumar, Leone, Aaker, & Day, 2018).

2.3 Challenges of Marketing Intelligence in Hypermarkets

Although marketing intelligence provides several benefits, hypermarkets in Jordan may face several challenges while using marketing intelligence (Maria, Pusriadi, & Darma, 2020). Firstly, hypermarkets may face challenges in gathering accurate and reliable data due to the complex nature of the market and the diverse needs of customers (Dash, McMurtry, Rebman, & Kar, 2019). Secondly, hypermarkets may face challenges in analyzing and interpreting data due to the lack of skilled professionals in marketing intelligence (Rojas-Mendez, Parasuraman, & Papadopoulos, 2017). Finally, hypermarkets may face challenges in implementing marketing intelligence in their decision-making process due to the resistance to change and lack of awareness about the benefits of marketing intelligence (Johnstone & Tan, 2015).

2.4 Hypermarkets in Jordan

A hypermarket is a large retail store combining a supermarket and a department store (Ferreira & Ferreira, 2018). Many countries have hypermarkets, especially in developing markets where the middle class and urbanization are growing. Jordan's hypermarkets face some challenges, including competition from traditional retailers, high operating costs, cultural preferences, and regulations (Elasrag, 2016). As well as increasing consumer demand, modernizing the retail sector, diversifying products and services, and expanding to new locations, hypermarkets also present some opportunities (Stanciu, Virlănuță, Vochin, Ionescu, & Antohi, 2019). We examined the following Jordanian hypermarkets: **Carrefour**: A French multinational retailer operating 11 hypermarkets in Jordan offering food, household goods, electronics, clothing, and more (Du & Salameh, 2019). In 2019, Carrefour held a 28% market share in Jordan, making it one of the country's leading hypermarkets (Yousef, L. S., 2021). Jordanian retailer **Safeway** operates nine hypermarkets in Jordan, offering food, household goods, electronics, clothing, and more. The Safeway hypermarket was founded in 1998 and is one of the oldest in Jordan (Al-Shaikh, 2020). Jordanian retailer **Cozmo** operates 7 hypermarkets in Jordan that sell food, household goods, electronics, clothing, and more. Cozmo is one of the most innovative hypermarkets in Jordan, introducing online shopping, loyalty programs and home delivery services (Migdadi & Abdel-Rahman, 2020).

2.5 Hypotheses Development

H1: Marketing intelligence (Market Research, Competitive Intelligence, Consumer Intelligence, Product Intelligence, and Marketing Analytics) play a significant and positive role in improving the efficiency of Hypermarkets in Jordan. From this hypothesis, the following sub-hypotheses were developed:

H1-1: Market Research plays a significant and positive role in improving the efficiency of Hypermarkets in Jordan
H1-2: Competitive Intelligence plays a significant and positive role in improving the efficiency of Hypermarkets in Jordan
H1-3: Consumer Intelligence plays a significant and positive role in improving the efficiency of Hypermarkets in Jordan
H1-4: Product Intelligence plays a significant and positive role in improving the efficiency of Hypermarkets in Jordan
H1-5: Marketing Analytics play a significant and positive role in improving the efficiency of Hypermarkets in Jordan

The conceptual research model shown in Fig. 1 was developed with the support of research hypotheses. The aim of this study is to offer a more thorough knowledge of how marketing intelligence affects organizational efficiency for hypermarkets in Jordan.
3. RESEARCH METHODOLOGY

3.1 Research strategy

In this study, the organizational efficiency of Jordan’s hypermarkets was quantitatively analyzed using a questionnaire. The results are more accurate as they are reflective of the population as a whole because a sizable sample size was gathered using a survey methodology. Using a convenience sample method, respondents are selected from each of the 27 hypermarkets in Jordan that are being studied. According to (Pace, 2021), a non-probability sampling technique called convenience sampling involves choosing participants based on their availability and openness to participate in the study. A sample size calculator was used to determine the sample size, and it was determined that 256 participants were required for sufficient statistical power (a 95% confidence level and a 5% margin of error).

3.2 Data gathering technique

The data were collected via an online survey that was self-administered. For the research of hypermarkets, survey questions were created to gauge organizational effectiveness and marketing intelligence. To create the survey questions, existing scales and validated measures from the literature were consulted. To ensure that the questions were clear and understandable, the survey was pretested on a small sample of customers.

3.3 Data analysis

The primary data gathered for the study through the questionnaire was analyzed using the Statistical Package for Social Sciences (SPSS), where percentages, frequencies, arithmetic averages, and standard deviations were calculated for the various questionnaire items to display, tabulate, and read the most crucial features and characteristics of the study population in accordance with the statistical tests utilized for this study's nature and goals were: Cronbach alpha test (Reliability); to make sure that the research tool is stable (Amirrudin, Nasution, & Supahar, 2021). Simple regression test: To test hypotheses by building an F-test and utilizing it to quantify...
the relationship between the independent and dependent factor variables. Multiple regression analysis: To determine the role of marketing intelligence that effect organizational efficiency levels (Saputra, F., 2022).

3.4 Ethical Considerations
The conduct of this study has been conducted under stringent ethical guidelines. Each participant will voluntarily give their consent after being advised of their right to withdraw at any time. The participant-provided data will be kept confidential and used only for the purpose of the study.

4. FINDINGS
4.1 Tool’s stability
The internal consistency coefficient, which was determined using the Cronbach alpha equation, was calculated to ensure the tool’s stability. Its values for marketing intelligence as a whole were (0.79), organizational efficiency as a whole was (0.83), and the tool as a whole was (0.84), as shown in table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing intelligence</td>
<td>0.794</td>
</tr>
<tr>
<td>Organizational Efficiency</td>
<td>0.822</td>
</tr>
<tr>
<td>Measurement as a whole</td>
<td>0.838</td>
</tr>
</tbody>
</table>

4.2 Hypothesis Testing
H1: Marketing intelligence (Market Research, Competitive Intelligence, Consumer Intelligence, Product Intelligence, and Marketing Analytics) play a significant and positive role in improving the efficiency of Supermarkets in Jordan.

Table 2. represents the regression model summary, Table 3 shows the ANOVA test, and Table 4 shows all dependent variables were statistically significant (α = 0.01). In the current study, multiple regression analyses have been conducted for examining the impact of marketing intelligence on the organizational efficiency.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error of the Est.</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R Square Change</td>
<td>F Change</td>
<td>df1</td>
<td>df2</td>
<td>Sig. F Change</td>
</tr>
<tr>
<td>1</td>
<td>.902a</td>
<td>.813</td>
<td>.810</td>
<td>.221</td>
<td>163.462 13 243 .000</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), competitive intelligence, product intelligence, market research, marketing analytics, consumer intelligence

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>91.813</td>
<td>13</td>
<td>7.063</td>
<td>163.462</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>13.843</td>
<td>243</td>
<td>.057</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>105.656</td>
<td>256</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), competitive intelligence, product intelligence, market research, marketing analytics, consumer intelligence
b Dependent variable: organizational efficiency
### Table 4. Coefficients\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.467</td>
<td>.086</td>
<td>5.490</td>
<td>.000</td>
</tr>
<tr>
<td>OE</td>
<td>Operational efficiency</td>
<td>.051</td>
<td>.024</td>
<td>.060</td>
<td>2.302</td>
</tr>
<tr>
<td>FE</td>
<td>financial Efficiency</td>
<td>.007</td>
<td>.030</td>
<td>.010</td>
<td>.301</td>
</tr>
<tr>
<td>HRE</td>
<td>human Resource Efficiency</td>
<td>-</td>
<td>.032</td>
<td>-.015</td>
<td>-.348</td>
</tr>
<tr>
<td>CE</td>
<td>customer Efficiency</td>
<td>.081</td>
<td>.024</td>
<td>.131</td>
<td>3.362</td>
</tr>
<tr>
<td>IE</td>
<td>Innovation Efficiency</td>
<td>-</td>
<td>.020</td>
<td>-.061</td>
<td>-</td>
</tr>
<tr>
<td>MR</td>
<td>market research</td>
<td>.113</td>
<td>.028</td>
<td>.121</td>
<td>2.77</td>
</tr>
<tr>
<td>CI</td>
<td>competitive intelligence</td>
<td>.178</td>
<td>.029</td>
<td>.228</td>
<td>6.741</td>
</tr>
<tr>
<td>PI</td>
<td>product intelligence</td>
<td>-</td>
<td>.033</td>
<td>-.018</td>
<td>-.405</td>
</tr>
<tr>
<td>CsI</td>
<td>consumer intelligence</td>
<td>.209</td>
<td>.038</td>
<td>.240</td>
<td>5.681</td>
</tr>
<tr>
<td>MA</td>
<td>marketing analytics</td>
<td>-</td>
<td>.021</td>
<td>-.026</td>
<td>-.902</td>
</tr>
</tbody>
</table>

\(^a\) Dependent variable: organizational efficiency

**Reg. Model**

\[
Y = 0.467 + 0.051OE + 0.007FE - 0.012HRE + 0.081CE - 0.032IE + 0.113MR + 0.178CI - 0.013PI + 0.209CsI - 0.016MA
\]

Partial Hypothesis

**H1-1: Market Research plays a significant and positive role in improving the efficiency of Hypermarkets in Jordan**

Market research's impact on the efficiency of Jordan's hypermarkets was tested with a simple regression analysis. Table (5) shows this.

**Table 5. Impact of market research on the organizational efficiency for Hypermarkets in Jordan**

<table>
<thead>
<tr>
<th>Organizational Efficiency</th>
<th>R</th>
<th>R(^2)</th>
<th>Beta</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.570</td>
<td>.325</td>
<td>.570</td>
<td>41.862</td>
<td>.000</td>
</tr>
</tbody>
</table>

According to Table (5), there is a positive relationship between market research and the efficiency of the organization. The statistical analysis showed that market research explained 0.325 of the variation in the organization's efficiency, with an "F" value of 41.862 and a statistical significance of 0.000, which is significant at the 0.05 level of significance. Thus, the partial hypothesis is accepted.
**H1-2: Competitive Intelligence plays a significant and positive role in improving the efficiency of Hypermarkets in Jordan.**

A simple regression analysis was used to test the impact of competitive intelligence on Jordan’s hypermarkets' efficiency. Table 6 shows this.

**Table 6. Impact of competitive intelligence on the organizational efficiency for Hypermarkets in Jordan**

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R²</th>
<th>Beta</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Efficiency</td>
<td>.484</td>
<td>.235</td>
<td>.484</td>
<td>26.655</td>
<td>.000</td>
</tr>
</tbody>
</table>

According to Table 6, there is a positive relationship between competitive intelligence and the efficiency of the organization. The statistical analysis revealed that competitive intelligence explained 0.235 of the variation in the organization’s efficiency, with an "F" value of 26.655 and a statistical significance of 0.000, which is significant at the 0.05 level of significance. Therefore, the partial hypothesis is accepted.

**H1-3: Consumer Intelligence plays a significant and positive role in improving the efficiency of Hypermarkets in Jordan**

In order to evaluate the impact of Consumer Intelligence on Jordan's hypermarkets' efficiency, a simple regression analysis was used. This is shown in Table 7.

**Table 7. Impact of consumer intelligence on the organizational efficiency for Hypermarkets in Jordan**

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R²</th>
<th>Beta</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Efficiency</td>
<td>.422</td>
<td>.178</td>
<td>.422</td>
<td>18.879</td>
<td>.000</td>
</tr>
</tbody>
</table>

According to Table 7, there is a positive correlation between the efficiency of the organization and consumer intelligence, as evidenced by the statistically significant value of "F" of 18.879 and a significance level of 0.000, which supports the partial hypothesis. Additionally, Consumer intelligence was found to account for 0.178 of the variation in the organization's efficiency.

**H1-4: Product Intelligence plays a significant and positive role in improving the efficiency of Hypermarkets in Jordan**

The impact of product intelligence on Jordan's hypermarkets' efficiency was assessed using a simple regression analysis. According to Table 8, this is the case.

**Table 8. Impact of product intelligence on the organizational efficiency for Hypermarkets in Jordan**

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R²</th>
<th>Beta</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Efficiency</td>
<td>.022</td>
<td>.000</td>
<td>.022</td>
<td>.041</td>
<td>.840</td>
</tr>
</tbody>
</table>

Table 8 indicates that there is no significant positive relationship between the intelligence of the product and the efficiency of the organization. The statistical analysis revealed that the intelligence of the product explained 0.000 of the variation in the organization’s efficiency, with an "F" value of 0.041 and a statistical significance of 0.840, which is not significant at the 0.05 level of significance. Therefore, the partial hypothesis is rejected.

**H1-5: Marketing Analytics play a significant and positive role in improving the efficiency of Hypermarkets in Jordan.**

A simple regression analysis was implemented for assessing the effect of marketing analytics on the efficiency of
Based on Table 9, it can be concluded that there is no positive correlation between the efficiency of the organization and marketing analytics. This is supported by the statistically insignificant value of "F" of 2.389, and a significance level of 0.126, which fails to meet the level of significance (α ≤ 0.05). This suggests that the hypothesis partial is rejected and Marketing analytics only accounts for 0.027 of the variance in the efficiency of the organization.

5. DISCUSSION
This research looked into how marketing intelligence affects hypermarket efficiency in Jordan. Consumer intelligence, competitive intelligence and market research were shown to have the greatest impact on the organization to improve hypermarket's efficiency based on the study's findings, and this result agrees with (Alasiri & Salameh, 2020). The results show there is no impact of marketing analytics and product intelligence on the hypermarket's efficiency in Jordan. this may be due to the limited use of analytics; Thus, this outcome is consistent with the study by Bader, Al-Alwan, and Twaisi (2023). The researcher found that hypermarkets in Jordan are not fully utilizing marketing analytics and product intelligence tools to the extent that they could be. Without proper implementation and analysis of these tools, their potential benefits may not be fully realized. In addition, cultural and societal factors; there may be cultural and societal factors unique to Jordan that impact the effectiveness of marketing analytics and product intelligence, which was covered in the study by Di Vaio, et, al., (2020) as a literature review. For example, consumer preferences and behaviours may be different, making it more challenging to accurately predict demand and consumer behaviour through data analysis. Moreover, Hypermarkets in Jordan may be facing intense competition, making it challenging to differentiate themselves through data-driven insights alone. Other factors such as pricing, product selection, and customer service may be more critical to success in the Jordanian market. Finally, hypermarkets in Jordan may not have the necessary resources, such as skilled personnel or advanced technology, to fully leverage marketing analytics and product intelligence tools. As a result, the potential benefits of these tools may not be fully realized, and this is what agrees upon Alawamleh, et, al., (2022).
In conclusion, marketing intelligence plays a crucial role in improving the efficiency of hypermarkets in Jordan. Hypermarkets can use marketing intelligence to identify market opportunities, understand consumer behavior, and develop effective marketing strategies according to Jordao, et, al., (2017). Marketing intelligence provides several benefits to hypermarkets, including improved customer satisfaction, increased loyalty, and competitive advantage, in light of what was stated in the study of Chitty, Ward, & Chua (2007). However, hypermarkets may face several challenges while using marketing intelligence, including the lack of reliable data, lack of skilled professionals, and resistance to change, according to Najm & Manasrah, (2017). Therefore, hypermarkets need to invest in marketing intelligence to gain a competitive advantage and improve their efficiency, from the perspective of the researcher.
By implementing the following recommendations, hypermarkets in Jordan can effectively use marketing intelligence to improve their efficiency, better understand their customers and competitors, and
ultimately increase their competitiveness in the market.
- Hypermarkets in Jordan should invest in marketing intelligence tools to better understand their customers, competitors, and market trends. These tools could include data analytics software, social media monitoring tools, or market research firms.
- Analyzing competitor activity can help hypermarkets in Jordan stay competitive by identifying potential threats and opportunities. This could include monitoring competitor pricing strategies, product offerings, and marketing campaigns.
- Hypermarkets in Jordan should collect and analyze customer feedback, both online and in-store, to better understand customer needs and preferences. This information can be used to improve product offerings, customer service, and overall shopping experience.
- Develop targeted marketing campaigns that resonate with their target audience. This could include targeted social media ads, email marketing campaigns, or in-store promotions.

REFERENCES


