

SUPPLIER RELATIONSHIP RISK AND PERFORMANCE OF MANUFACTURING FIRMS IN KENYA

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ABSTRACT

The study sought to determine the influence of supplier relationship risk on performance of manufacturing firms in Kenya. Descriptive and explanatory research designs were adopted. The unit of observation was the supply chain administrators of manufacturing firms in Kenya. Stratified sampling was conducted on all the one thousand one hundred and twenty three manufacturing firms registered by KAM, simple random sampling was carried out on the strata to identify a sample size of 295 firms. The study relied mainly on primary data which was collected through semi-structured questionnaires that were administered to administrators charged with the management of supply chain within the selected firms. Data analysis was done using descriptive statistics (percentages, mean and standard deviation) and inferential statistics through SPSS version 24. The findings revealed that supplier relationship risk had a significant influence on the performance of manufacturing companies in Kenya. It was established that through management of reputation damage, embracing innovation and enhancing the cooperation between the outsourced parties and the manufacturing firms, meeting the customer needs was enhanced, thus promoting performance. The study concluded that supplier relationship risk was among the logistics outsourcing risks that determined the performance of the manufacturing firms. It is therefore recommended that the manufacturing firms uphold proper management of supplier relationship risks so as to have win-win relationship with suppliers and enhancing performance.

Keywords: Logistics Outsourcing, Supplier relationship risks, information flow, firm performance, manufacturing firms.

1.0 INTRODUCTION

1.1 Background of the Study

Many organizations strive to have reliable and effective suppliers, who are capable of meeting their customers' needs and expectations. This is however possible with good and prolonged relationship with suppliers. While outsourcing for logistic services, the organization face high risks of not maintaining a long-lasting relationship with the suppliers. These are the supplier relationship risks. According to Tsai (2012), in alliances additionally to the common risk of unsatisfactory business performance, there exists the risk of the service provider not devotedly cooperating. Supplier relationship risk is defined as the prospect and consequence of not having reasonable cooperation or risks derived from imbalance of power among trading partners who exercise opportunistic behaviours that in turn lead to poor reputations and lack of business continuity (Yang, 2015). Relational risk includes comparable risks associated with the collaboration and correlated with the partner's deeds.

As noted by Vishal, Nitin, Satiish, and Nishant (2013), the crucial role of relationships in third party logistics outsourcing is the capability by each of the parties to effectively manage the relationship risks and ensure they do not tamper with the normal process of the logistics. Among the issues discussed by these authors are the failure of outsourcing firms to manage providers as a business and a lack of mutual consideration for each other. In turn these conditions cause unsatisfactory sharing of business information among the parties with subsequent challenge to provide an appropriate environment for business relationship to nurture.

In many cases the division of responsibilities among the two partners is not easy to apply thus causing overlapping roles and conflict in execution of activities. The crucial role of relationships in logistics outsourcing is well expressed in a quote by Vagadia (2012): "logistical considerations and expertise might be important factors when choosing a partner, but never as important as the relationship which includes the networks of contacts the local partner will bring into the project". After a lengthy phase in outsourcing of logistics, the principal is more dependent on the provider, and pays more attention to the cost, thus reducing its own logistics innovation and falling into a passive situation in the cooperation.

However, when the outsourcing enterprise tries running the logistics business by itself, it may come across series of hitches, such as the shortage of talents, experience and the deficiency of management (Yang, 2015). Dependency risk may occur to firms that contracts out their logistics activities to a third party logistics providers. Through contracting out these activities to the same third party logistics provider over elongated contract period, the enterprise may expose itself in an increasingly vulnerable position including even lacking control of portion of its functions activities and lack of emerging knowledge in the area (Hofenk, Schipper, Semeijn & Gelderman, 2011).

According to Zailani *et al.* (2017), when a firm has outsourced its logistics services, its capability to discover new ideas may be compromised. Primarily, if a company desire to preserve its competitive competences entirely, it should develop fresh approach of providing logistics services for the business noting that external sourcing does not warranty innovation. Throughout outsourcing phase, the 3PL provider may not make a distinction when to innovate as the center of attention may be on costs objective henceforward lose on market share. The company may locate itself in gradually more susceptible position and cannot be reactive to changing market environment and customer evolving demands (Shanker, Sharma, & Barve, 2021).

Many Manufacturing firms in Kenya have relocated or restructured their operations opting to serve the local market through importing from low-cost manufacturing areas such as Egypt, South Africa and India therefore resulting in job losses (Nyabiage & Kapchanga, 2014). This is an indication that many manufacturing firms in Kenya are experiencing performance challenges with many reporting profit warnings due to challenges in the operating environment (RoK, 2018). Statistics from World Bank show that manufacturers operate in Kenya registered stagnation and declining profits for the last five years due to a turbulent operating environment (WB, 2019).

On average the manufacturing sector in the country has been growing at a rate lower than the economy, which dipped to 4.9% in 2017. This indicate a reducing contribution of manufacturing sector to GDP over time hence it can be argued that the country is going through premature deindustrialization in a context where manufacturing and industry are still moderately under-developed. Manufacturing is the industry with the highest demands regarding logistics services

and consequently it is judged as the most appropriate industry for comparisons within the logistics context (Gotzamani *et al.*, 2010).

1.2 Statement of the Problem

The share of the manufacturing sector in Kenya to gross domestic product (GDP) has been on a declining trend from 11.8% in 2011 to 8.4% in 2017 and contracting by 3.9 % in 2020 (KNBS, 2020) . There had been a decrease in expansion of manufacturing sector from 3.6% in 2015 to 3.5% in 2016 (KNBS, 2016). The performance of the sector in Kenya has not been stable, it decreased by 0.4% in 2015 from 3.2% in 2014, contributing a reduction of more than \$62 billion; 10.3% on GDP. The sector had a lower growth of 3.6% in the first quarter of 2016 compared to 4.1% growth in the first quarter of 2015.

Available studies have shown that logistics outsourcing risks such as the supplier relationship risks from a range of perspectives, in relation to firm performance. Tsai (2012) noted that relationship risk leads to both asset risk and competence risk, while Gąsowska (2017) established that relationship risks with suppliers affects the performance of organizations if not effectively managed. However, the literature on supplier relationship risk and firm performance remain scant, particularly among the manufacturing firms in a Kenyan context. It is against this backdrop that this study sought to assess the influence of supplier relationship risk on the performance of manufacturing firms in Kenya.

1.3 Study Objectives

- i. To assess the influence of supplier relationship risk on performance of manufacturing firms in Kenya
- ii. To examine the moderating effect of information flow on the influence of supplier relationship risk and performance of manufacturing firms in Kenya

1.4 Research Hypotheses

H_{A1}: There is a significant relationship between supplier relationship risk and performance of manufacturing firms in Kenya

H_{A2}: There is a significant moderating effect of information flow on the relationship between supplier relationship risk and performance of manufacturing firms in Kenya

2.0 LITERATURE REVIEW

2.1 Theoretical Framework

The paper is informed by the resource based view theory (RBV) and agency theory. RBV theory was put forward by Barney (1991). The author considers organizations to be always in need of resources for their continued success, and this is determined by the uniqueness of the resources they have. Logistics outsourcing can be viewed from the aspect of association between service receiver and service provider. The resource based view analyses the internal strengths and weaknesses aspects of a company. A firm's resource perspective generates the core competencies and competitive advantage for specific business activity, RBV defines resources as tangible and intangible assets within the firm (Wachira *et al.*, 2016).

Firms establish their definite resources which they routinely review in order to counter and align with the changing business world. According to Sanchez, Harris, and Mason (2015), companies should establish different capabilities which are adaptable to the environmental adjustments. Capability which is the potential of a firm is the key role of strategic management to skillfully become accustomed, combine and rearrange internal and external organizational skills, resources and functional abilities to match the necessities of a diverse environment. Collective potential, skills and right resources are necessary ingredients used by service providers to make quality products. This theory was useful to this study because managers played a vital role in enhancing the performance of their firms by creating relationship with stakeholders in this case 3PL providers.

According to Fayezi (2012), agency theory is applicable under conditions of incomplete information and uncertainty, (which characterizes most business settings), two agency challenges come up, adverse selection and moral hazard. Adverse selection is related to the problem that the principal cannot determine if the agent accurately represents his ability to do the work for which he is paid; moral hazard refers to the problem that the principal cannot be sure if the agent has put onward maximum endeavor. Agency theory was for that reason helpful in determining the influence of information flow on supplier relationship risk and manufacturing firm's performance

2.2 Conceptual Framework

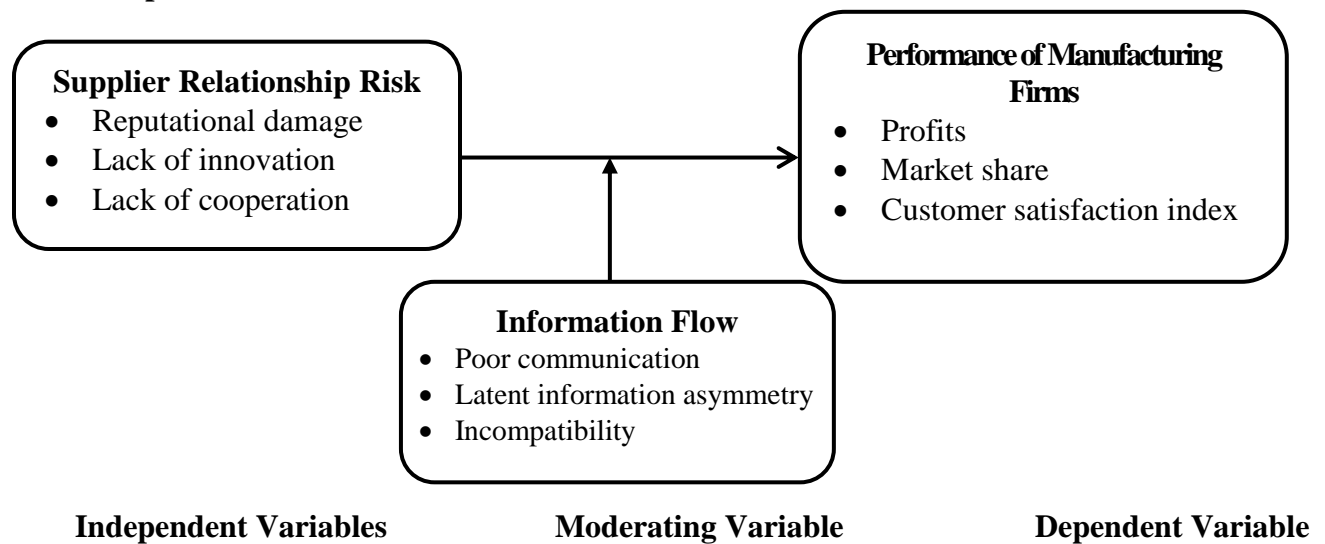


Figure 1: Conceptual Framework

2.3 Review of Empirical Literature

2.3.1 Supplier Relationship Risk and Firm Performance

Amoako-Gyampah, Boakye, Adaku, and Famiyeh (2019) analysed the effect of supplier relationship management on firm performance in developing economies. Their study sought to assess the effectiveness of supplier relationship management and how this had enhanced the performance of companies in developing countries. The authors utilized a correlational research design and sampled 95 respondents drawn from companies in Sub-Saharan Africa. The findings revealed that while supplier relationship management was upheld in most of the surveyed companies, managing the risks associated with supplier relationship was not effectively looked into. This led to many companies losing their market to the same suppliers that they had relationship with, thus losing their revenue streams and declined performance. According to Amoako-Gyampah *et al.*, (2019), one of the ways of ensuring a successful relationship with suppliers is through assessing and mitigating the risks associated with supplier relationship.

According to Lazzarotto *et al.*, (2014) outsourcing logistics relation has many associated risks, as the norm with business contracts. It is obvious that not all terms can be covered in the contract from commencement, but it is prudent that the two parties identify as many risks as possible and try to get fortification against them through the contract. In this research they examined the main categories of risks found in the outsourcing logistics contracts in the Romanian industry sector.

Their discoveries were all risks accompanying outsourcing logistics contracts can be categorized as follows: Strategic risks, operational risks and tactical risks.

Julius (2017) sought to establish the influence of outsourcing third party logistics providers on the performance of food and beverages manufacturing companies in Kenya. The study found out that cost, service quality, lead-time and risk assessment were significant predictors in the performance of food and beverages manufacturing companies in Kenya. On risk assessment, it was established that delay in logistics service delivery and logistics service providers' capacity, logistics provider system, loss or damage of assets, interruptions of service levels, loss of income and liability incurred affected performance. However the research could not clarify how these risks affect performance of these companies.

2.3.2 Information Flow and Firm Performance

Information is probable to be given away. After the completion of their cooperation, though both parties sign confidential agreement, it is more likely that much information of the outsourcing enterprise shall be given away, which may cause great losses (Hartmann, & de Grahl, 2012). According to Liu and Lee (2018), there could exist an information imbalance among the parties in logistics outsourcing. The third party logistics provider may have bits of information about the contracting company; similarly the interested company may suffer from the same deficient about the logistics service provider. Lack of visibility of consignment and demand schedules may result in the formation of surplus capacity and additional shipping expenditures. It can also lead to the use of inefficient methods of transportation (Yousefi & Alibabaei, 2015). Outsourcing a supplier could lead to potential violation of confidentiality, bring in the exposure of customer private data or the sharing of commercially strategic information.

3.0 RESEARCH METHODOLOGY

The study utilized jointly descriptive and explanatory research designs which allow for both observational data and formulation of a problem for more accurate investigations (Bordens & Abbott, 2014). Both provide the collection of relevant evidence with minimal expenditure of effort, time and funds; the resolve of the research transpires to be an accurate descriptive of condition and investigation of the affiliation between variables.

The study population was all the manufacturing firms in Kenya and the target population was all the manufacturing companies listed by Kenya Association of Manufacturers (KAM). According to (KAM, 2019) there are 1,123 manufacturing firms registered in KAM directory 2019. To achieve optimum sample, this study followed the formula proposed by Saunder *et al.*, (2009) since it is simple to use, scientific and can be used in cases of large populations.

$$n = p\% * q\% * \left(\frac{Z}{e\%}\right)^2$$

Where;

n – Minimum sample size required

p - No. of target population that conforms to the characteristic of the sample required

q - No. of target population that don't conform to the characteristic of the sample required

e – Margin of error (0.05)

Z = the value corresponding to the confidence level required (1.96 for 95% level of confidence)

Using the above formula, a study sample of 295 companies was derived.

The study used questionnaires with closed and open questions to collect data from 295 manufacturing businesses.

Both quantitative and qualitative techniques were adopted in the analysis of the collected data. The data was scrutinized and cleaned for any errors and coded in SPSS version 24. Using the coded data, the researcher generated tables, graphs and pie-charts which were used in presenting the results of the study. Qualitative data was checked through and compared based on the relevancy and presented in form of explanations. Regression analysis was carried out to test for the relationship between the independent variables and the dependent variable. The following regression models were adopted:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \text{ and } Y = \beta_0 + \beta_1 X_1.Z + \varepsilon$$

4.0 RESEARCH FINDINGS AND DISCUSSIONS

4.1 Response Rate of the Study

The study was carried out using 295 respondents who were surveyed using a structured questionnaire. The respondents were given the questionnaires to fill and return them upon completion. Out of the 295 surveyed respondents, 233 returned dully filled questionnaires for analysis. This represented a response rate of 78.9%. This was considered adequate for the study.

4.2 Supplier Relationship Risk

The study sought to determine the effect of supplier relationship risks on the performance of manufacturing firms in Kenya. Supplier relationship risk was assessed through reputational damage, lack of innovation and lack of cooperation. The findings are as shown in Table 1. The results are in line with those by Sauvage and Haouari (2011) who established that failure to effectively manage the supplier relationship risks could see a decline in the success of innovativeness especially in supply chain thus affecting the effectiveness of organizations in meeting customer needs.

The findings imply that supplier relationship risks had an impact in the performance of the manufacturing firms and their effectiveness management would enhance performance. The findings compare with those by Schwieterman *et al.*, (2018) who found out that the suppliers are core to the business success but they come with a bundled risks which if not mitigated, they could affect the performance of the firm. Amoako-Gyampah *et al.*, (2019) considered supplier relationship management as a process that should encompass analysis and mitigation of associated risks so as to enhance the benefit of having long-term supplier relationships.

Table 1: Descriptive Results on Supplier Relationship Risks

Statements	Mean	Std. Dev.
There have been cases of poor expertise by our outsourced parties	3.33	1.17
We often have to contend with low level of shared expertise among our outsourcing partners	3.05	1.10
There have been cases of little mutual trust between our firm and partners	3.09	1.12

Our outsourcing partners have caused damage to our company's reputation in the past	3.31	1.17
The innovative capacity of our firm has in some instances declined due to outsourcing	3.31	1.14
There are cases where the outsourced party do not show commitment in doing things differently	3.18	1.19
The suppliers have been reluctant in bringing-in new products/services	3.09	1.20
Product/service improvement has been minimal among the outsourced cadres	3.39	1.12
Outsourcing has led to low Level of promptness in product delivery	3.38	1.12
There's a general lack of commitment to a common purpose	2.75	1.22
<u>Our firm has lost market share due to inefficiencies of outsourcing</u>	<u>2.83</u>	<u>1.21</u>

4.3 Information Flow

The study sought to assess the moderating effect of information flow on the relationship between supplier relationship risk and performance of manufacturing firms in Kenya. Information flow determines the ability of an organization to effectively communicate both internally and externally, thus affecting the effectiveness of the process and relationships within and outside the organization. In this study, information flow was assessed through three key aspects which were; poor communication, latent information symmetry and incompatibility of the information. The findings are as summarized in Table 2. The findings compare with those by Yousefi, and Alibabaei (2015) who found out that through effective communication and information sharing, the operations flow more efficiently thus leading to better organizational performance. Mukaddes *et al.* (2010) contend that as a result of poor information flow between the outsourced firms and the outsourcing entities, it became difficult to coordinate activities effectively for mutual benefit. Liu *et al.* (2015) also indicated that the information sharing within and out of the organization was essential in steering the effectiveness of operations thus enhancing customer satisfaction and continued performance.

Table 2: Descriptive Results on Information Flow

Statements	Mean	Std. Dev.
Our company has not adopted the latest information technology to aid communication in and out of the company	3.23	1.07
The hierarchy of communication in our organization is only based on top-bottom approach	3.79	1.01
Giving feedback to the customers has not been effectively upheld in our company	2.56	1.32
The employees do not give and receive feedback to the management timely and efficiently	2.58	1.33
There are no effective approaches and strategies to ensure the internal information of the organization is not leaked	2.11	1.56
There are is unequal sharing of information among the employees in our organization	3.36	1.34
Staff members are held responsible in cases of leakage or misuse of internal organizational information	3.45	1.32
For any information shared the recipients are informed on the level of confidentiality on such information	3.42	1.36
There is no clarity in the information shared in our organization	3.54	1.21
The management has not been committed towards ensuring consistency in information sharing in and out of the firm	3.34	1.33
The communication procedures in our company are not flexible	3.41	1.41
There have been cases of inaccurate information being shared in our organization	3.81	0.98

4.4 Performance of Manufacturing Firms

The study sought to unveil the performance of manufacturing firms in Kenya. A Likert's scale was used whereby the respondents were asked to indicate their levels of agreement or disagreement with specific statements on performance of their respective firms. The findings are as shown in Table 4.3. As the findings portray, the respondents disagreed that their respective companies had recorded an increase in the quality of services as shown by a mean of 2.31 and a standard deviation of 1.48. The findings imply that the performance of the manufacturing firms has not been as impressive which is an indication of a distressed industry.

Table 3: Descriptive Results on Performance

Statements	Mean	Std. Dev.
The company has recorded an increase in quality of services in the recent past	2.31	1.48
There has been a decrease in number of customer complaints in our organization over the recent past	2.33	1.52
Our company has seen a surge in the customers loyalty over the recent past	2.56	1.43
The market share for the company has been on the increase in the past two years	2.44	1.53
The sales revenues have been on increase in the recent past	2.53	1.61
The profit margin of the firm has been growing annually over the past five years	2.71	1.73

4.5 Correlation Analysis

Pearson's correlation was carried out to establish the relationship between the supplier relationship risk and performance of manufacturing firms in Kenya. Supplier relationship risks had a Pearson correlation coefficient of 0.763 when correlated with performance of manufacturing firms. The significance level for the variable 0.000 which implies that there is a significant and strong positive correlation between supplier relationship risks and performance of manufacturing firms in Kenya.

Table 4: Correlation Results for Supplier Relationship Risks

		Performance of Manufacturing Firms	Supplier Relationship Risk
Performance of Manufacturing Firms	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	233	
Supplier Relationship Risk	Pearson Correlation	.763**	1
	Sig. (2-tailed)	.000	
	N	233	233

4.6 Hypothesis Testing

H_{AI}: There is a significant relationship between supplier relationship risk and performance of manufacturing firms in Kenya

The study set to test the hypothesis of the study which was that there is a significant relationship between supplier relationship risk and performance of manufacturing firms in Kenya. The model summary results are as shown in Table 5. As the results show, the R^2 for the model was 0.583 which is an implication that supplier relationship risk influences up to 58.3% of the variation in the performance of manufacturing firms in Kenya.

Table 5: Model Summary for Supplier Relationship Risk

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.763 ^a	.583	.581	.42479

a. Predictors: (Constant), Supplier Relationship Risk

As the ANOVA results on Table 6 reveal, the model had F-statistic of 322.820 at a significance level of 0.000. This implies that the model is statistically significant and could test the relationship between the supplier relationship risk and performance of manufacturing firms in Kenya. The results further imply that there is a high likelihood of the relationship between the variables being significant.

Table 6: ANOVA Test Results for Supplier Relationship Risk

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	58.252	1	58.252	322.820	.000 ^b
1	Residual	41.684	231	.180		
	Total	99.936	232			

a. Dependent Variable: Performance of Manufacturing Firms

b. Predictors: (Constant), Supplier Relationship Risk

The regression coefficients for the model are as shown in Table 7. As the results portray, the Beta coefficient for the variable is 0.686 which is an implication that supplier relationship risk influences the performance of the manufacturing firms by up to 0.686. The P-value for the variable is 0.000 which is less than the standard p-value of 0.05 implying that the relationship between supplier relationship risk and performance of the manufacturing firms is significant.

Therefore, the third alternative hypothesis that *there is a significant relationship between supplier relationship risk and performance of manufacturing firms in Kenya* is accepted.

Table 7: Regression Coefficients for Supplier Relationship Risk

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.852	.118		7.234	.000
1 Supplier Relationship Risk	.686	.038	.763	17.967	.000

a. Dependent Variable: Performance of Manufacturing Firms

H_{A2}: There is a significant moderating effect of information flow on the relationship between supplier relationship risk and performance of manufacturing firms in Kenya

The study set to test the hypothesis which was that there is information flow has a significant moderating effect on the relationship between supplier relationship risk and performance of manufacturing firms in Kenya. The regression coefficients for the moderated model are as shown in Table 7. As the results portray, the interaction effect between supplier relationship risk and the information flow had a Beta coefficient of 0.047 and a P-value of 0.034 < 0.05. This is an implication that information flow has a significant and positive moderating effect on the relationship between supplier relationship risk and performance of manufacturing firms in Kenya.

Table 7: Regression Coefficients for the Moderated Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.553	.093		16.678	.000
1 Supplier Relationship Risk*Information Flow	.047	.022	.249	2.139	.034

a. Dependent Variable: Performance of Manufacturing Firms

5.0 Conclusion

The study sought to establish the influence of supplier relationship risks on the performance of manufacturing firms in Kenya. The findings from the study revealed that cases of inadequate expertise among the outsourced parties and the companies' contention to work with lowly qualified suppliers from the outsourced companies were some of the risks that they encountered. The study concluded that the supplier relationship risks were significant in determining the performance of the manufacturing firms. As a result of the companies pushing for enhanced relationship with the outsourced logistics service providers, the companies lost their reputation to the public, which is detrimental to the continued performance of the companies. Through the outsourced logistics service providers, it was concluded that innovation among the manufacturing firms was affected due to failure by the outsourced parties to fully and effectively embrace innovation and continued improvement.

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