

Strategic Impact of Knowledge Management and Organizational Learning on the Perceived Performance of Selected Banks in Oyo State of Nigeria.

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Abstract

This study investigated the impact of knowledge management and organizational learning on the perceived performance of selected banks in Oyo State of Nigeria. The study aimed at determining the main and interactive effect of knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy on organizational performance. It also looked at the nexus between knowledge management variables as well as organizational learning variables and organizational performance. Four hypotheses were formulated and tested using Multiple Analysis of Variance (MANOVA), Canonical Correlation and Multiple Regression. The findings showed that the independent variables (knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy) were predictors of organizational performance. The study also established a significant positive relationship between knowledge management variables as well as organizational learning variables and organizational performance. Based on the findings, it was recommended that there is a need for organizations especially banks to efficiently and effectively manage knowledge and embrace individual and group learning in order to improve organizational performance and gain sustainable competitive advantage.

Keywords: Knowledge management, organizational learning, strategic management , resource based view , organizational performance.

Introduction

In the present day era of knowledge-based economy, knowledge becomes a major resource of competitiveness (Drucker, 1993) and also a new criterion for wealth creation (Thurow, 1996). Knowledge Management defines a systematic, explicit and deliberated building processes required to manage knowledge, the purpose of which is to maximize an enterprise's knowledge-related effectiveness and create values (Bixler, &Stankosky, 2005). The process incorporated in KM includes collecting, organizing, clarifying, disseminating and reusing the information and knowledge throughout an organization. Consequently, there is a need for proper management of knowledge. Knowledge Management(KM) has become a crucial source of corporate competitiveness (Andrew, 2005). KM as a company's foundation, both organization- and technology-wise, is defined as "the continuous process of improving organizational performance offering correct knowledge at the right time to members who need it, to enable them take right action(s) appropriately".

The process consists of stages such as the creating, confirming, collecting, categorizing/saving, sharing/storage, using/refining and retiring of knowledge (O'Dell & Grayson, 1998) and an organization may effectively improve its performance by implementing such a process (Laurie, 1997). Alavi & Leidner (2001) believe that the process of knowledge creation comprises the creation, storage, conversion and application of knowledge. Such a continuous process enables individuals, groups or companies to share explicit/tacit knowledge on an ongoing basis. Knowledge has two types, explicit and tacit. Explicit knowledge can be articulated in formal language and transmitted among individuals; tacit knowledge involves more intangible factors and is personal knowledge embedded in individual experience (Frappaolo, 2002). Both explicit and tacit knowledge must create returns and solve today's problems within an organization.

As the knowledge-based economy grows exponentially, the knowledge assets become increasingly invaluable to organizations. Thus, use of knowledge has become crucial to the organization's survival and

success in competitive global markets, and it has also become strong potential to problems solving, decision making, organizational performance enhancements and innovation. Precisely, effective use of knowledge is Knowledge Management.

Organizational learning has been considered, from a strategic perspective, as a source of heterogeneity among organizations, as well as a basis for a possible competitive advantage (Grant, 1996; Lei et al., 1999). Pilar et al. (2005) consider organizational learning to be a latent multidimensional construct including managerial commitment, systems perspective, openness and experimentation, and knowledge transfer and integration of knowledge designed to arrest or checkmate the current uncertainty in which businesses operate. In order to develop and perform efficiently, organizational learning (OL) has been regarded as one of the strategic means of achieving long-term organizational success (Senge, 1990).

Therefore, the analysis of organizational learning has become an increasingly important area recently. Various works have dealt with the analysis of this construct from differing viewpoints. Jerez-Gómez et al. (2005) mention that there are many studies that focus on this construct using a psychological approach (Cyert and March, 1963; Daft and Weick, 1984), a sociological approach (Levitt and March, 1988), or from the point of view of Organizational Theory (Senge, 1990; Huber, 1991). Facing the current uncertainty environment, business must keep learning to maintain its competitiveness. And, organizational learning will develop well base on well structured knowledge in organizations. In other words, business could have organizational learning capabilities underlying well individual learning (Nonaka and Takeuchi, 1995).

In the experimental experience of English enterprises, Garratt (1990) observed earlier that only a learning organization that applies organizational development and learning process can satisfy consumers' capricious demands. Organization should develop personal or group learning abilities. The development of development of these learning abilities become germane for organizational success and survival. Without effective knowledge management, organizations cannot develop personal or group learning abilities (Garratt, 1990, Su, Huang, and Hsieh, 2004). Organizational learning enhances firm's innovative capabilities by improving the level of firms' competitiveness and performance. Organizations creative innovation is dependent on their learning (Chen and Chen, 2010).

Objectives of the Study

The primary objective of this research work is to investigate the impact of knowledge management and organizational learning on the performance of selected banks in Oyo State of Nigeria. Other objectives include:

1. To determine the main and interactive effect of knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy on organizational performance.
2. To ascertain the significant relationship between organizational learning variables(knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory) and organizational performance.
3. To assess whether knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy can jointly and independently predict organizational performance.
4. To examine the significant relationship between knowledge management strategy variables(system orientation strategy and human orientation strategy) and organizational performance.

Research Hypotheses

In line with the objectives set for this study, four hypotheses are to be tested namely,

- i There is no main and interactive effect of knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy on organizational performance.
- ii There is no significant relationship between organizational learning variables(knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory) and organizational performance.
- iii knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy cannot jointly and independently predict organizational performance.
- iv There is no significant relationship between knowledge management strategy variables(system orientation strategy and human orientation strategy) and organizational performance.

Literature Review and Theoretical Framework

Sedera and Gable (2010) describe in their paper, a cycle of knowledge management that goes through four phases: creation, transfer, retention and application. Each of these four phases is described as models of knowledge management. Creating knowledge is the first phase of the cycle of the entrepreneurial system, which belongs to planning and implementation of knowledge in the organizations. This phase is based on knowledge requirements to outline a structured model of the cycle. Knowledge transfer highlights a number of channels through which knowledge can be transferred, channels which can be formal or informal (Pan et al., 2007). The formal transfer of knowledge is established by a rigorous program, and informal knowledge transfer can take place even in the coffee break, for example. Informal transfer of knowledge also promotes effective socialization in small organizations.

Avital and Vandenbosch (2000) argue that the formal transfer of knowledge takes place especially during training programs and is focused on knowledge transfer. Accumulation/retention of knowledge shows that people accumulate knowledge from observations, experiences and actions (Sanderlands and Stablein, 1987). Gable et al. (1998) observed the importance of the organizational strategies of retention of knowledge by the success determined by the cycle of entrepreneurial system,

Application of knowledge highlights the fact that once knowledge is created, the transfer and the accumulation interact with entrepreneurship system. Markus (2001) suggests that the source of competitive advantage lies not in knowledge but the application of knowledge. Application of knowledge is essential in the cycle described in the outlined system of the knowledge management, in particular by the maintenance and achieving the success.

There are many articles in the literature discussing various types and dimensions of knowledge. In particular, the distinction between tacit knowledge and explicit knowledge is given special attention. Tacit knowledge is that which exists in the minds of individuals, while explicit knowledge are outsourced and shared with others. Reijers et al. (2009) identified the same patterns of knowledge interaction as Nonaka and Takeuchi (1995). Therefore, we can identify the transition from:

- Tacit knowledge to tacit knowledge - the process of "socialization" while sharing experience and interaction.
- Explicit knowledge to explicit knowledge - process of "combining" of existing knowledge with the innovative ones, the transition from basic knowledge to new knowledge.
- Tacit knowledge to explicit knowledge - process of "outsourcing" of knowledge that individuals assimilate them.
- Explicit knowledge to tacit knowledge - process of "internalization" of acquired knowledge (Polanyi, 1967).

Drew (1999) presents a classification of economic knowledge in which may appear the risk of deficiency of knowledge:

- What we KNOW, KNOW (sharing and access to knowledge);
- What we KNOW, NOT KNOW (finding and creating knowledge);
- What we do NOT KNOW, KNOW (tacit knowledge, concealing knowledge);
- What we do NOT KNOW, NOT KNOW (the discovery, exposure and opportunities).

Holsapple and Singh (2001) have divided the knowledge management into five main activities and four secondary activities. The five core activities concern to acquisition, selection, generation, internalization and externalization of knowledge.

The other four secondary activities are leadership, coordination control and measurement. These activities encompass the knowledge logistic model. Analysis of activities and resources necessary to lead to knowledge management operations leads to competitive advantages.

Logistic model of knowledge is described by the two specialists as follows:

- Acquisition, through which external knowledge must be transposed into the organizational environment.
- Selection, through which knowledge must be so selected to obtain the best results.
 - Generation, through which the knowledge obtained is useful and can be analyzed to create new knowledge.
 - Internalization, through which knowledge is transformed into internal resources.
 - Externalization, through which knowledge is communicated.

Organizational knowledge creation is a process that includes new perspectives needed for the development of the culture and organizational environment of companies.

Learning can basically be seen as the process through which an individual acquires knowledge, skills, attitudes and opinions (Idowu, 2013). Organizational learning occupies an important niche in modern management literature. In fact it has emerged as one of the most promising concepts in strategic management since the late 1980s (Skerlavaj & Dimovski, 2006), and has been associated with other key constructs such as innovation (Huber, 1998 ;) Nolas, 2006), strategic renewal (Crossan & Bedrow, 2003), and the external

adaptability of firms (Chen, 2005; Castaneda & Rios, 2007). Several authors recognize organization learning as a foundation for sustainable competitive advantage (Epstein & Roy, 1997; Fiol & Lyles, 1985; Garratt 1987; Grieves 2000; Kiechel, 1990; Marguardt, 2002; and Senge, 1990, all cited by Retna, 2007). De Geus (1988) even contends that “the ability to learn faster than your competitors may be the only sustainable competitive advantage.”

Organizational learning is basically how learning takes place in a particular organization. Castaneda and Rios (2007) elaborate by saying that organizational learning is a process that institutionalizes individual learning in order to enable an organization to adapt to environmental changes or to proactively change the environment, depending on its level of development. Organizational learning can be viewed from several perspectives. From a cognitive perspective, it is assumed that individual learning, taken together, will result to organizational learning.

From a behavioral perspective, organizational learning is considered a process that entails “application and utilization of learning” and is measured through behavioral outcomes. From the technical perspective, organizational learning is defined as “the processing and interpretation of information from inside or outside the organization.” From the social perspective, learning is treated “as inseparable from the social interaction and engagement in work practice.” Many of these consider organizational learning as a process that involves the transformation of information into knowledge (e.g. Argyris & Schön, 1978; Crossan, Lane, White, & Djurfeldt, 1995; Day, 1994; Dimovski, 1994; Fiol & Lyles, 1985; Huber, 1991; Lee, Courtney, & O’Keefe, 1992). Whether the information processing (i.e. information acquisition, interpretation, and storage in organizational memory) extends to behavioral and cognitive changes is where the differences surface. More recent definitions (Sanchez, 2001; Schwandt & Marquardt, 2000, as cited by Škerlavaj & Dimovski, 2007; Friedman, 2006; Rashman, Withers & Hartley, 2008; Yukl, 2009) see organizational learning as taking place on multiple levels and as being a relational phenomenon.

According to Huber (1998), “it is useful to think of organizational learning as occurring in different modes.” Organizations learn through sensing as when they observe relevant events (e.g., changes in technology, morale, or competitor actions) in their external or internal environments. They also learn experientially, as when through their ongoing experiences they find ways to manufacture products more rapidly and at lower cost. Finally, organizations learn vicariously from those who already know, as when they rent or hire outside experts with specialized knowledge.” Organizational learning can be defined as a dynamic process of creation, acquisition and integration of knowledge aimed at the development of resources and capabilities that allow the organizations a better performance.

The knowledge-based theory views firms as distributed knowledge systems, which means that they are composed of knowledge embodied individuals and their social interactions. The knowledge-based theory of the firm postulate that knowledge is the only resource that provides sustainable competitive advantage, and therefore the firm’s attention and the decision-making should focus primarily on knowledge and the competitive capabilities developed from it. The key contribution of the knowledge based view of the firm and KM literature is the insistence that knowledge can be managed as an organizational resource that in turn, hopefully, constitutes competitive advantage (Choo et. al., 2002). Soo et al. (2002) assert that the capacity to manage human intellect and to transform intellectual output into a service or a group of services embodied in a product is fast becoming the critical executive skill of this era

Subjects

The subjects of this study were seventy six males and thirty females who were employees of Skye Bank, Eco Bank and Zenith Bank located in Ogbomosho, Oyo and Ibadan in Oyo State, Nigeria selected using stratified random sampling technique.

Instruments

The study made use of a questionnaire which was divided into four sections. Section A focused on the demographic information of the subjects covering sex, age, marital status and cadre among other things. Section B centred on knowledge Management strategy (measuring system orientation strategy(items 1-4) and human orientation strategy(items 5-8) based on prior works by Choi (2002) and Hsin-Jung (2007). The scale is an eighth item questionnaires with Likert scoring format ranging from (SA) strongly agree (5) to (SD) strongly disagree (1). The scale had a reliability Cronobach alpha value of 0.84.

Section C dealt with organizational learning. Organizational learning was measured in terms of knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory. This is a twenty five item scale using a 5-point Likert scoring format ranging from strongly disagree=1 to strongly agree =5. The first seven items dealt with knowledge acquisition, items 8 to 12 measured knowledge distribution, items 13 to 17 measured knowledge interpretation and items 18 to 25 measured organizational memory. These scales had reliability Cronobach alpha values of 0.77, 0.77, 0.82 and 0.84 respectively. Organizational learning

scale is based on prior work by Lopez et al (2005).

Organizational performance was measured in section D. The organizational performance scale is adapted from a scale developed by khandwalla (1977) and David et. al (2002) which is an eighth item scale with a Likert scoring format ranging from very high (6) to very low (1). The scale had a reliability Cronobach alpha value of 0.87.

The instruments were revalidated and the Cronobach alpha reliability values gave the following results: knowledge management: 0.79 , organizational learning: 0.93 and organizational performance: 0.78

Statistical Analysis

The biodata information was analysed using frequency counts and simple percentage. Hypothesis 1 was tested using Multiple Analysis of Variance (MANOVA) while hypotheses 2 and 4 were analysed using Canonical Correlation. Hypothesis 3 was tested using Multiple Regression

Results and Discussion

Hypotheses Testing

Hypothesis 1

There is no main and interactive effect of knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy on organizational performance.

Table 1: summary of the Multiple Analysis of Variance(MANOVA) showing main and interactive effect of knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy on organizational performance

Variables	F- Ratio	Sig of P	Canonical Correlation	R ²	Pearson Correlation
Knowledge acquisition	2.120	.000	.6069	.3683	.216**
Knowledge distribution	2.486				.219**
knowledge interpretation	2.507				-.319*
Organizational memory	3.525				.502**
System orientation strategy	1.919				-.212**
Human orientation strategy	1.909				.312**

Table 1 shows the summary of the Multiple Analysis of Variance(MANOVA) showing main and interactive effect of knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy on organizational performance of Banks in Oyo State. This contains multivariate tests for statistical significance, where tests namely, Pillais, Hotellings, Wilks and Roy (see MANOVA analysis) all of which show that the model as a whole is statistically significant at 1% level of significance. There is more than one way to combine the independent variable into a latent factor, to combine the dependent variable into a latent factor, and to relate the two latent factors to one another. The first canonical correlation is always the largest, because it was selected to maximize the associations between the two sets of variables (performance variables on one hand and Organizational Learning and Knowledge Management on the other hand). That's the one that is usually reported for a canonical correlation analysis.

For this analysis, the canonical correlation is .6069. The implication of this is that there is a strong positive correlation between the set of dependent variables and the respective set of independent variables. When the variables are examined individually, knowledge acquisition ($r = .216^{**}$, $F = 2.120$), knowledge distribution ($r = .219^{**}$, $F = 2.486$) and organizational memory ($r = .502^{**}$, $F = 3.525$), Human orientation strategy ($r = .312^{**}$, $F = 1.909$) and System orientation strategy ($r = -.212^{**}$, $F = 1.919$) are significant at .01 level while knowledge interpretation ($r = -.319^*$, $F = 2.507$). Of the entire independent variables, knowledge acquisition, knowledge distribution, organizational memory and Human orientation strategy are positively related to organizational performance while knowledge interpretation and System orientation strategy are negatively related to organizational performance. With these we can conclusively say there is main and interactive effect of knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy on organizational performance of Banks in Oyo State.

Hypothesis 2

There is no significant relationship between organizational learning variables(knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory) and organizational performance.

Table 2: Showing Canonical Correlation Between Organizational Learning Variables and Organizational Performance.

Variable	Mean	Std. Dev.	N	Pearson R	Canon corr	P	Remark
Organizational performance	4.5224	.8662	106		.59005		Sig
knowledge acquisition	4.0007	.6931	106	.216**		.009	
knowledge distribution	4.1570	.6895	106	.219**		.005	
knowledge interpretation	4.1589	.6901	106	-.319*		.015	
organizational memory	4.0118	.6908	106	.502**		.000	

** Sig. at .01 level

* Sig. at .05 level

Table 2 shows the relationship between organizational learning variables (knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory) and organizational performance of Banks in Oyo State. The analysis shows that there is a positive correlation between knowledge acquisition ($r = .216^{**}$, $p = .009$), knowledge distribution ($r = .219^{**}$, $p = .005$) and organizational memory ($r = .502^{**}$, $p = .000$) and the dependent variable (Organizational performance) and are significant at .01 level of significance while knowledge interpretation ($r = -.319^*$, $p = .015$) is negatively related and is significant at .05 level of significance. With these respective values, it means that 1% change in each of knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory respectively resulted in 21.6%, 21.9%, 50.2% and 31.9% change in organizational performance of Banks in Oyo State. As a result of this, we can conclusively say that there is a significant relationship between organizational learning variables(knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory) and organizational performance.

Hypothesis 3

knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy cannot jointly and independently predict organizational performance.

Table 3: Showing multiple regression of knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy on organizational performance.

Variables	F- Ratio	Sig of P	R	R ²	Adj R ²	B	t	P
Knowledge acquisition	8.009	.000	.572	.327	.286	.198	2.191	.037
Knowledge distribution						.563	4.987	.026
Knowledge interpretation						-.927	-3.943	.048
Organizational memory						.514	6.176	.000
System orientation strategy						-.457	-2.208	.030
Human orientation strategy						.451	2.191	.036

Table 3 shows the *linear multiple regression* among knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy and organizational performance of Banks in Oyo State. The result shows that knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy will jointly and independently predict organizational performance. $F = 8.009$; $R = .572$, $R^2 = .327$, $Adj. R^2 = .286$; $P = .000$). The independent/predictor variables jointly accounted for a variation of about 32.7% in organizational performance. When these variables were examined individually, the parameters of knowledge acquisition ($\beta = .198$, $P < .05$), knowledge distribution ($\beta = .563$, $P < .05$), knowledge interpretation ($\beta = -.927$, $P = .48$), organizational memory ($\beta = .514$, $P < .05$), system orientation strategy ($\beta = -.457$, $P < .05$) and human orientation strategy ($\beta = .451$, $P < .05$) are respectively significant at 5% level of significance. The tolerance value and Variance Inflation Factor (VIF) are within reasonable bound. With this result, we can conclude that, knowledge acquisition, knowledge distribution, knowledge interpretation, organizational memory, system orientation strategy and human orientation strategy jointly and independently predicted organizational performance.

Hypothesis 4

There is no significant relationship between knowledge management strategy variables(system orientation strategy and human orientation strategy) and organizational performance.

Table 4: Showing Canonical Correlation Between Organizational Learning Variables and Organizational Performance.

Variable	Mean	Std. Dev.	N	Pearson R	Canon corr.	P	Remark
Organizational performance	4.5224	.8662	106		.32276		Sig
System orientation strategy	4.1198	.7111		-.212**		.012	
Human orientation strategy	4.1236	.7092		.312**		.002	

Table 4 shows the relationship between knowledge management strategy variables (system orientation strategy and human orientation strategy) and organizational performance of Banks in Oyo State. The analysis shows that there is a positive correlation between Human orientation strategy ($r = .312^{**}$, $p = .002$) and the dependent variable (Organizational performance) while System orientation strategy ($r = -.212^{**}$, $p = .012$) is negatively related. Both are significant at .01 level of significance. With these respective values, it means that 1% change in each of system orientation strategy and human orientation strategy will respectively result in 21.2%, and 31.2% change in organizational performance of Banks in Oyo State. As a result of this, we can conclusively say that there is a significant relationship between knowledge management strategy variables(system orientation strategy and human orientation strategy) and organizational performance.

Concluding Remarks

This study has investigated the strategic impact of knowledge management and organizational learning on the perceived performance of banks in Oyo State. This research revealed strong association between organizational learning and bank performance. This means banks can gain sustained competitive advantage as individuals and groups in the organization learn. Banks can also achieve superior performance if they can acquire, store, disseminate and interpret effectively and efficiently new knowledge. This is in line with findings by Idowu, (2013) who found out in her study that organizational learning is positively correlated with firm performance.

Organizational learning which constitutes a complex capacity difficult to imitate and develop which is useful in all the dimensions of the company's performance and can be considered a veritable source of competitive advantage (Day, 1994; Slater, 1997). Among the benefits of organizational learning it is worth mentioning, first, that it establishes a link between the organization and the environment which allows a proactive behavior rather than a reactive one. Learning implies an improvement in response capacity through a wider understanding of the environment (Sinkula, 1994).

This study also concluded that organizational learning variables(knowledge acquisition, knowledge distribution, knowledge interpretation, and organizational memory) and knowledge management variables (system orientation strategy and human orientation) were predictors of bank performance. All these variables were found to be significant. Based on the these findings, banks and other organizations should strategically work and improve their knowledge and learning base so as to improve their performance and in the long run gain sustained competitive advantage.

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APPENDIX

Manova (All independent variables and performance)

***** Analysis of Variance -- Design 1 *****

EFFECT .. WITHIN CELLS Regression
 Multivariate Tests of Significance (S = 6, M = 1/2, N = 45)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.87558	2.07172	48.00	582.00	.000
Hotellings	1.21216	2.28122	48.00	542.00	.000
Wilks	.35973	2.19760	48.00	456.74	.000
Roys	.36826				

 Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.	Sq. Cor
1	.58293	48.09033	48.09033	.60685	.36826
2	.34453	28.42250	76.51283	.50621	.25624
3	.17612	14.52935	91.04218	.38697	.14975
4	.08577	7.07620	98.11838	.28107	.07900
5	.02216	1.82807	99.94645	.14724	.02168
6	.00065	.05355	100.00000	.02547	.00065

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