The Experience Rule for Giving Association Rules Threshold

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ABSTRACT

It is very important technique to find the association rule from database transactions about the data mining. What is called association rule which is to find interrelationship in a database. For the reasons the rule must be meaningful, the rule must be greater than the threshold of support and confidence. How large the threshold should be? It must be given by an expert usually. And there is no any normal regulations can be obeyed. So in our research we will try to formulate the threshold by percentile. By this method, we expect to have more meaningful association rules. In this paper, we define the threshold by the percentile. We assume the percentiles is depend on mean, skewness, kurtosis and others statistical parameter. We try to use these statistical parameters to find an experience formula, and use this experience rule may obtain optimal threshold quickly. We expect to find a using meaningfull and reliable with the experience formula.

Keywords : Data mining、Association Rule、Large Itemsets、Supports、 Confidence、Experience rule、Skewness、Kurtosis.

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REFERENCES

[1] 鄧安生，新式探勘方法在關聯法則門檻值制定之研究，大葉大 學資訊管理研究所碩士論文，2003 年。

[2] Agrawal, R., Imilienski, T. and Swami, A.,“ Mining Association Rules between Sets of Items in Large Databases, ” In Proceedings of ACM SIGMOD International Conference on Management of Data, pp. 207-216, 1993.

[3] Agrawal, R. and Srikant, R.,“ Fast Algorithm for Mining Association Rules, ” In Proceedings of the 20th International Conference on Very Large Databases, pp. 487-499, 1994.

[4] Adriaans, P. and Zantinge, D.,“ Data Mining, Addison Wesley Longman, ” 1996.

[5] Brin, S., Motwani R. and Silverstein, C.,“ Beyond market baskets: Generalizing association rules to correlations, ” In Proceedings of ACM SIGMOD Conference on Management of Data, pp. 265-276,1997.

[6] Chen, M.S., Han J. and Yu, P.S.,“ Data Mining: An Overview from Database Perspective, ” IEEE Transactions on Knowledge and Data Engineering, Volume 8, Number 6, pp. 866-883, 1996.

[7] Fayyad, U.M.,“ Data Mining and knowledge Discovery: Making Sense Out of data, ” IEEE Expert, Volume 11, Issue 5, pp. 20-25,1996.

[8] Fu, Y.,“ Data mining Tasks, techniques and applications, ” IEEE Potentials, Volume 16, Issue 4, pp. 18-20, 1997.

[9] F Han, J. and Kamber, M.,“ Data Mining: Concepts and Techniques, Morgan Kaufmann Publishers, ” San Francisco,2000.

[10] Han, Jiawei and Micheline Kamber ,“ Data Mining : Concepts and Techniques, ”John Wiley & Son，2001.

[11] Kleissner, C.,“ Data mining for the enterprise, ” In Proceedings of the Thirty-First Hawaii International Conference on, Volume 7, pp.

295-304, 1998.
[12] Kim, Sung-Min, Jong-Dal Kim, Jeong-Hee Hong, Do-Won Nam, Dong-Ha Lee,Jeon-Young Lee , “ A System for Association Rule Finding from an Internet Portal Site， ” 2000.
[13] Michael, J.A. and Linoff, G., “ Data Mining Technique: for Marketing, Sales and Customer Support, ” Wiley Computer Publishing, New York, 1997.
[14] Olaru, C. and Wehenkel, L., “ Data mining, ” IEEE Computer Applications in Power, Volume 12, Issue 3, pp. 19-25, 1999.
[15] Simoudis, E., “ Reality check for data mining, ” IEEE Expert, Volume 11, Issue 5, pp. 26-33, 1996.
[16] Zhang, C. and Zhang, S., “ Association Rule Mining: Model and Algorithms, Springer-Verlag Berlin Heidelberg, ” New York,2002.