

2. Differences across industry

In different industries, product development and markets vary greatly. When emotional evaluation parameters were applied, features for each industry were not put in consideration. More validation for industry products are needed to further optimize the emotional evaluation parameter module. The goals and target users for each industrial product are different, not all emotional evaluation parameters are applicable to each industry. To increase emotional evaluation parameter reliability, this research suggests further studies regarding how to adjust modify parameters when used on specific industrial products.

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REFERENCES / BIBLIOGRAPHY

1. Hauge, P. L., & Stauffer, L. A. (1993). ELK: A method for eliciting knowledge from customers. ASME DES ENG DIV PUBL DE., ASME, NEW YORK, NY(USA), 1993, 53, 73-81.
2. Jiao, J. R., Zhang, Y., & Helander, M. (2006). A Kansei mining system for affective design. *Expert Systems with Applications*, 30(4), 658-673.
3. Kawakita, J. (1991). *The original KJ method*. Tokyo: Kawakita Research Institute.
4. Nagamachi, M. (1996). *Introduction of Kansei engineering*. Japan Standard Association.
5. Jiao, J., Tseng, M. M., Duffy, V. G., & Lin, F. (1998). Product family modeling for mass customization. *Computers & Industrial Engineering*, 35(3), 495-498.
6. Jiao, J. R., Zhang, Y., & Helander, M. (2006). A Kansei mining system for affective design. *Expert Systems with Applications*, 30(4), 658-673.
7. Saaty, T. L. (1980). *The analytic hierarchy process: planning. Priority Setting. Resource Allocation*, MacGraw-Hill, New York International Book Company, 287.
8. Sedgwick, J., Henson, B., & Barnes, C. (2003). Designing pleasurable products and interfaces. In *Proceedings of the 2003 International conference on designing pleasurable products and interfaces*, Pittsburgh.
9. Yan, W., Chen, C. H., & Khoo, L. P. (2001). A radial basis function neural network multicultural factors evaluation engine for product concept development. *Expert Systems*, 18(5), 219-232.
10. Yamaoka, T. (2012). How to Construct Form Logically Based on Human Design Technology and Form Construction Principles. In *DS 73-2 Proceedings of the 2nd International conference on Design Creativity Volume 2*.
11. 山岡俊樹. (2003). *ヒューマンデザインテクノロジー入門*. P23-32, 海文堂.