Question: As a Project Manager, what might be your response to manage the emotional reactions of a customer?

A user's emotional responses – as depicted within the Components of User Experience-model (CUE-model) (Thüring & Mahlke 2007) - have been shown to be extremely influential in both their subsequent choice of technology and the decision to persist with said technology (Deng et al., 2010; Thüring & Mahlke, 2007; Van Der Linden et al., 2019). However, Van Der Linden et al. (2019) emphasise the need to consider the social influences here, finding that peers had the largest influence on a student's perceived enjoyment in their use of a particular tablet, with teachers also cited as being an influential factor, albeit a less significant one.

Predictably, the user's perceptions of usability - how well the technology performs the job that it should do - have been found to have a strong influence over a user's overall appraisal of technology (Thüring & Mahlke 2007). However, Van Der Linden et al. (2019) found that perceived ease of use had a larger impact on satisfaction levels than perceived usefulness.

Aesthetic appeal has also been found to be impactful upon user satisfaction: Thüring & Mahlke (2007) found that initial perceptions of a technology were influenced significantly by perceived aesthetic appeal. These perceptions were then found to influence the technology's perceived usability (Thüring & Mahlke, 2007). Gu, Tang & Xu (2023) similarly reported a 'Halo Effect' (Gu, Tang & Xu, 2023, p. 171) whereby users exhibited a strong emotional response to the websites' visual appearance even before they began interacting with it, heavily influencing their reported evaluation of the website.

In terms of continued use of technology, Deng at al. (2010) found that the most influential factor on user satisfaction and subsequent continued use of a technology was its ability to provide an element of 'cognitive absorption' - 'a positive, highly enjoyable experience, which occurs when a user is fully immersed in the interaction with IT.' (Deng et al., 2010, p. 61).

This body of research suggests that software engineering project managers (SEPM) should take these influential factors into account within the software development lifecycle (SDLC). SEPMs should prioritise usability and ease of use first and foremost, as these were seen to be most influential on levels of user satisfaction

(Van Der Linden et al., 2019; Thüring & Mahlke, 2007). Although not at the expense of usability, the next priority should centre around the aesthetic appeal of the software, as well as its ability to provide a degree of 'cognitive absorption' (Deng et al., 2010, p. 61). Although not at the expense of usability, the next priority should centre around the aesthetic appeal of the software, as well as its ability to provide a degree of 'cognitive absorption' (Deng et al., 2010, p.61). These aspects should be considered at the requirements-gathering phase, with metrics regarding how 'usability', 'ease of use', 'aesthetic appeal' and 'cognitive absorption' will be measured should be defined so that their achievement is measurable (Millward, 2025).

By using an agile methodology, the SEPM could factor in user acceptance testing at multiple points within the SDLC, measuring user satisfaction levels after each software feature increment. Such testing could include a measurement of the user's perceived levels of usability, ease of use, aesthetics, as well as the degree to which they felt absorbed in their use of the software. Features could then be tweaked accordingly in the next sprint before reassessment.

References

Deng, L., Turner, D. E., Gehling, R., & Prince, B. (2010). User experience, satisfaction, and continual usage intention of IT. European Journal of Information Systems 19(1), pp. 60-75. DOI: 10.1057/ejis.2009.50

Gu, Q., Tang, W., Xue, C. (2023). 'The Effect of Time Lapse on the Halo Effect in the Subjective Evaluation of Digital Interfaces', in: Marcus, A., Rosenzweig, E., Soares, M.M. (eds) *Design, User Experience, and Usability*. Cham: Springer. 171-183.

Milward, D. (2025) *Software Development Lifecycles*. [Lecturecast]. SEPM_PCOM7E APRIL 2025 Software Engineering Project Management April 2025. University of Essex Online.

Thüring, M., & Mahlke, S. (2007). Usability, aesthetics and emotions in human-technology interaction. *International Journal of Psychology 42*(4), pp. 253–264. DOI: :10.1080/00207590701396674

Van Der Linden, J., Amadieu, F., Vayre, E., Van De Leemput, C., Wang, W., & Marcus, A. (2019) 'User Experience and Social Influence: A New Perspective for UX Theory', *Design, User Experience, and Usability. Design Philosophy and Theory*. Online, Switzerland. AG: Springer International Publishing. 98–112. Available at: 10.1007/978-3-030-23570-3_9