If you ever wondered what made you buy that pair of fancy shoes on a whim which you later regret, science may have an answer for you.

It turns out, the effect of ambient lighting plays a role in consumer choices in terms of increasing the appeal of certain products, which shop owners and marketers could work to their advantage.

A recent study by researchers from Singapore’s Nanyang Technological University (NTU) and Northwestern University in the United States showed that dim lighting may influence people to choose pleasurable products over functional ones.

However, the preference for pleasurable or hedonic products is reduced when consumers are reminded of their close ties, such as family and friends, the study found.

The findings were published in the *International Journal of Research in Marketing* last month after researchers from both universities pinpointed the effect of ambient lighting in making consumer choices through three related studies, said an NTU statement on Monday (April 23).

One of the studies saw 180 participants, who were recruited from an online platform, randomly assigned to dark or well-lit conditions.

They were tasked to make choices: To pick between a competent job candidate and a fun job candidate; a mobile app for work and a mobile app for entertainment; a durable laptop for the home office and a stylish laptop for the home office; and between a documentary and a love drama.

Afterwards, the participants answered questions that measured how much they wanted to be true to themselves, which is, making the choices that they really wanted.

"Analysis showed that when in darkness, the participants were true to themselves and followed their heart, with a higher preference for the hedonic option as well," said assistant professor Irene Huang from NTU’s Nanyang Business School.

Assistant Professor Huang, who does research in sensory marketing and emotions, also said that the results suggest that brighter surroundings may be better if one wants to highlight products prized for their function.

She said: "The potential implication is that shop owners can adjust the store lighting to suit specific marketing campaigns, for example, to emphasise the functional or hedonic aspects of their products."

Past research implied that people might choose more hedonic options in a darker setting because there’s no one to see and judge their choices.

However, the research team’s findings showed that it was the emotional disconnection in darkness, rather than the lack of scrutiny by others, that resulted in a preference for hedonic options.

Assistant Prof Huang also cited other factors which affect consumer choice.

For example, when a person has been through a situation where they have less control over, such as a traffic jam, he is more likely to buy functional products.

Consumers also tend to just follow their heart when it’s difficult to choose a product, she said.