Product experience and risk perceptions in Platform 1 users: a cross-sectional survey in Japan

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Background and Methods

Philip Morris has been marketing a potential reduced-risk product commercialized under the brand name IQOS in Japan since November 2014. In order to define the population health effects of IQOS, it is important to understand how the product is perceived and used under real world conditions. Perceived quality attributes and consumer satisfaction are key determinants for successful switching from cigarettes to an alternative product like IQOS.
We initiated a series of cross-sectional surveys in representative samples of the Japanese adult general population and, in addition, in samples of registered IQOS users in December 2016. An interim analysis of the first year data from the Japanese adult general population sample revealed a prevalence of IQOS use of 1.2% (Reference 1 – please see the leaflet). Perceived quality attributes and consumer satisfaction were

assessed in the sample of registered IQOS users which were randomly selected from Philip Morris Japan's consumer database. In an internet survey, participants were asked to estimate the risk to smokers of getting 18 different diseases or adverse health conditions because of smoking cigarettes and similarly to estimate the risk to IQOS users because of using IQOS on a five point scale from no to very-high risk. To evaluate the degree to which IQOS users experience the reinforcing effect of using IQOS, participants were asked to confirm 12 statements on how IQOS made them feel today on a seven point scale from not at all to extremely. Eventually, participants were asked to indicate their agreement on aesthetic changes which occurred or not since they started using IQOS on a 5 point scale from strong disagreement to strong agreement.

Results

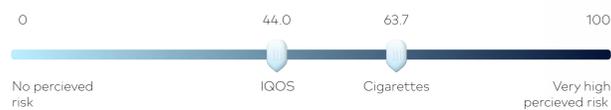**Figure 1: The overall risk score associated with smoking cigarettes and using IQOS**

Table 1: Sample characteristics (n=1,500)

Mean age (years) [95%CI*]	Sex (percent)		Highest education (percent)				Occupation (percent)									Current tobacco product use (percent)								Frequency of use	Intensity of use
	Male	Female	College/ University	High School	Junior High School	Don't know/Not applicable	Don't know/Not applicable	Managing profession	Self-employed/ Small private business	Manual employee	Clerical employee	Housewife	Student	Retired/ Unemployed	Farming/ Agriculture/ Fishery	IQOS	Cigarette	Ploom	E-cigarette	Cigars / pipes / Kiseru / shisha	Smokeless tobacco (chewing tobacco, snus or snuff)	Smokeless tobacco pipe	Nicotine replacement therapy	Average number of days of IQOS use in last 30 days [95%CI]	Average number of HeatSticks used per day [95%CI]
38.5 [37.9, 39.0]	81.6	18.4	55.3	37.5	6.6	0.6	27.1	20.3	16.9	14.3	14.0	3.9	1.8	1.2	0.5	100.0	26.9	8.1	4.5	1.2	1.1	0.9	0.7	29.2 [29; 29.4]	16.1 [15.6; 16.5]

* CI= Confidence Interval

Figure 2: Satisfaction with IQOS

Figure 3: Self-reported changes since using IQOS
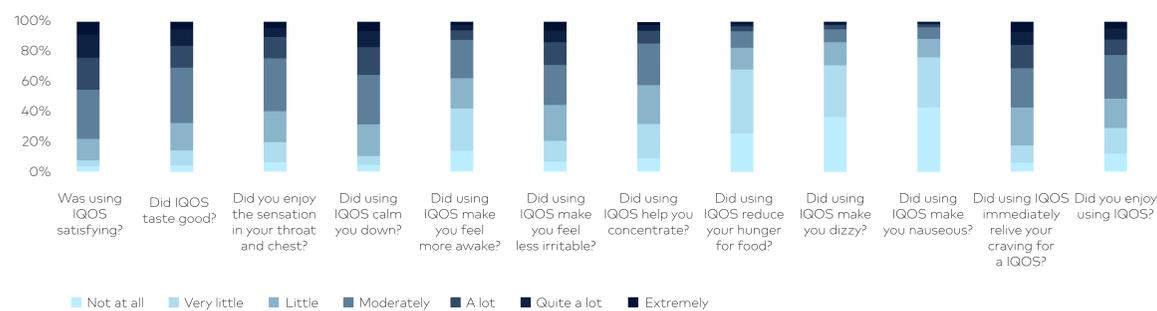
The survey was completed by 1,500 current IQOS users between March and July 2017 (completion rate=11.2%). A description of the sample including sociodemographic characteristics, current tobacco product use pattern, frequency and intensity of IQOS are shown in table 1. Results are reported as frequencies and means with 95% confidence interval in square brackets if applicable.

Risk perception

The overall risk score associated with smoking cigarettes ranging from 0 (no perceived risk) to 100 (very high perceived risk) was 63.7 (62.8-64.6). The overall risk score associated with using IQOS was 44.0 (43.1-44.9) - shown in Figure 1. The overall perception of product use related health risks was higher for smoking cigarettes than for using IQOS (overall score difference of 19.5 (95% confidence interval, 18.5-20.5).
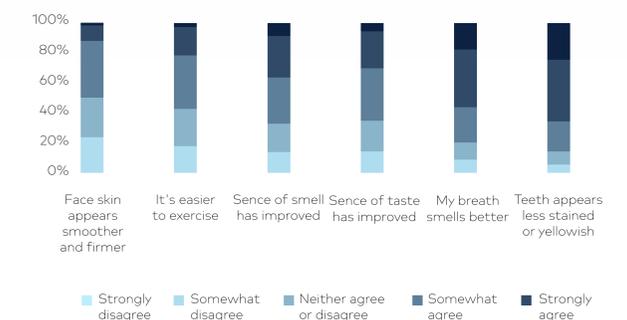
Consumer satisfaction

Results on the reinforcing effect of using IQOS are presented as the average response of domain-related items ranging from 1 (not at all) to 7 (extremely): IQOS use satisfaction: 4.0 [3.9-4.19]; enjoyment of respiratory tract sensation: 3.7 [3.6-3.8]; psychological reward: 3.3 [3.2-3.4]; aversion: 2.1 [2.0-2.2], and craving reduction: 3.9 [3.8-4.0]. Complete results for all items are shown in Figure 2. Compared to a historic control of smokers (Reference 2 – please see the leaflet) notable differences can be seen in sub-scales "enjoyment of respiratory tract system" (3.7 vs 2.8 for smoking), craving reduction (3.9 vs 5.04 for smoking) and aversion (2.1 vs 1.4 for smoking).

Self-reported changes

A person was considered to confirm a change statement if he/she selected one of the two highest grading options "some-

what agree" or "strongly agree". Changes which were confirmed most were "teeth appears less stained or yellowish" (66%), "my breath smells better" (56.4%) and "sense of smell has improved" (36.6%). Thirty point six per-cent confirmed that "sense of taste has improved", 22.1% that "it is easier to exercise" and 12.2% that "Face skin appears smoother and firmer". Complete results for all items are shown in Figure 3.

Conclusions

IQOS users in Japan showed high awareness of locally communicated product characteristics and perceived using the product as having lower health related risks than cigarette smoking. Furthermore, they are generally satisfied with the product.