
Mobile Banking Adoption : Application of Diffusion of Innovation Theory

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□ 개요 (Research Question)

- 본 논문에서는 Rogers가 제시한 ‘Diffusion of Innovation’ 이론을 활용하여 사우디아라비아와 같은 개발도상국에서 모바일 뱅킹을 선택하게 되는 요인을 분석하고자 함.
- Rogers가 제시한 혁신의 확산 요인(relative advantage, compatibility, complexity, trialability, observability)을 활용하여 모바일 뱅킹 선택의 잠재적 촉진 요인과 저해 요인을 분석

□ 가설 설정 (Hypotheses)

- 가설 1 : Relative advantage will have a positive effect on mobile banking adoption.
 - Relative advantage refers to the degree to which an innovation is perceived as providing more benefits than its predecessor [More & Benbasat 1991].
 - Relative advantage results in increased efficiency, economic benefits and enhanced status [Rogers 2003].
- 가설 2 : Complexity will have a negative effect on mobile banking adoption.
 - Cheung et al. [2000] defined complexity as the extent to which an innovation can be considered relatively difficult to understand and use.
- 가설 3 : Compatibility will have a positive effect on mobile banking adoption.
 - Compatibility refers to the degree to which a service is perceived as consistent with users’ existing values, beliefs, habits and present and previous experiences [Chen et al. 2004].
 - Compatibility is a vital feature of innovation as conformance with user’s lifestyle can propel a rapid rate of adoption [Rogers 2003].
- 가설 4 : Observability will have a positive effect on mobile banking adoption.
 - Observability of an innovation describes the extent to which an innovation is visible to the members of a social system, and the benefits can be easily observed and communicated [Rogers 2003].
- 가설 5 : Trialability will have a positive effect on mobile banking adoption.

- Trialability refers to the capacity to experiment with new technology before adoption. Potential adopters who are allowed to experiment with an innovation will feel more comfortable with it and are more likely to adopt it[Agarwal & Prasad 1998; Rogers 2003].

○ 가설 6 : Perceived risk will have a negative effect on mobile banking adoption.

- Perceived risk refers to the degree of risks in using an innovation [Ram & Sheth 1989].

□ 데이터 및 방법론

- 사우디아라비아 3개 주요도시에 거주하는 성인을 대상으로 설문조사를 실시함.
 - 설문지는 1,500명의 참가자에게 배포되었으며 466개의 사용 가능한 설문지 결과를 바탕으로 분석함.

□ 분석결과 (Results)

- Relative advantage, Compatibility, Observability는 모바일 뱅킹 선택에 긍정적인 영향을 미치는 것으로 나타났으며, 기존 문헌들과 달리 Trialability와 Complexity는 선택에 큰 영향을 미치지 않았다. Perceived risk는 선택에 부정적인 영향을 주었다.

Table 3: Exploratory factor analysis						
Constructs	Factor Loadings					
	1	2	3	4	5	6
<i>Relative Advantage</i>						
MB is a convenient way to manage finance	.859	.105	.197	.135	.067	.063
MB allows to manage finance efficiently	.840	.135	.115	.085	.013	.058
MB allows me to manage my finance effectively	.798	.204	.235	-.055	.085	.181
MB gives greater control over finances	.779	.250	.104	-.028	.068	.061
MB is useful for managing financial resources	.748	.139	.333	.138	.143	.149
<i>Compatibility</i>						
MB fits well with the way I like to manage my finances	.532	.529	.142	.075	-.111	.240
I like to try new technology	.136	.897	.105	-.097	.009	.077
I like to adopt new innovation	.142	.871	.065	-.107	.048	.087
MB is compatible with my lifestyle	.296	.656	.261	-.002	-.010	.272
Using MB fits into my working style	.321	.643	.270	.020	-.109	.306
<i>Observability</i>						
MB can be accessed anytime & anywhere when in Saudi Arabia	.151	.117	.855	-.014	.007	.257
MB have no queue	.302	.106	.716	.095	.057	.033
MB can be accessed when abroad	.347	.219	.682	.145	.047	-.074
I can see the effect of a transaction immediately	.231	.332	.482	-.133	.171	.299
<i>Complexity</i>						
MB requires a lot of mental effort	.083	-.027	.076	.842	.278	-.039
MB requires technical skills	.049	-.106	-.005	.832	.157	.163
MB can be frustrating	.066	-.037	.062	.828	.229	.012

<i>Perceived Risk</i>						
Information about my transactions may be tampered by others	.037	-.073	.140	.252	.847	.098
I fear that the PIN codes get lost & end up in wrong hands	.029	.011	.071	.152	.828	.159
Information about my transactions may be known to others	.162	.042	-.065	.317	.823	-.002
<i>Trialability</i>						
I want to try for at least one month	.207	.189	.182	.148	.118	.834
I want to use MB on a trial basis to see what it can do for me	.135	.330	.078	.017	.169	.822
Eigen value	4.15	3.19	2.44	2.42	2.38	1.90
Variance explained (%)	18.87	14.49	11.07	10.99	10.80	8.64
Cumulative variance explained (%)	18.87	33.36	44.42	55.42	66.22	74.86

□ 결론 (Conclusions & Limitation)

- 연구 결과에 따르면 사우디아라비아 은행은 고객의 기대를 충족시키기 위해 다양한 사용자 요구사항, 과거 경험 및 라이프스타일과 일치하는 모바일 뱅킹 서비스를 제공해야함을 알 수 있다.
- 또한, 은행들은 ATM 이용과 같은 다른 은행 이용 채널에 비해 모바일 뱅킹의 상대적 이점과 유용성을 강조하는 정보 전달에 중점을 두어야 하며 고객 정보 보호에 대한 믿음을 주어야 한다는 것을 알 수 있다.
- 이번 연구에서는 데이터 수집을 위해 사용한 표본 대부분이 18세에서 25세 사이의 젊은 응답자로 구성되어있어 나온 결과를 일반화할 수 없는 한계를 가지고 있다.
- 따라서 사우디아라비아에서 모바일 뱅킹의 선택을 촉진하는 추가요소를 식별하려면 추가 연구가 필요하며 사용 의도를 보다 정확하게 예측할 수 있는 추가 변수를 찾는 것이 필요하다.