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Developing and Doing Validity and Reliability of the Motivational Factors Scale of Recreational Motorcycle Usage¹

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Abstract

The main aim of this study is to develop “The Motivational Factors Scale of Recreational Motorcycle Usage - RMKO” and define the validity and reliability for Turkish population. The study was descriptive and sampling group was consisted of 947 volunteer participants all around Turkey. For data collection, e-questionnaire form sent to participants who have Facebook group and Associations of Recreational Motorcycle User, Motorcycle Clubs and Institutions as email. 948 feedbacks were received between 01st December 2016 and 31th May 2017. Six of items of 45 items excluded due to low initial communalities (<0.40) in after first Exploratory Factor Analysis (EFA). For the validity of EFA with rest 39 items, Bartlett’s Test of Sphericity and Kaiser–Meyer–Oklin (KMO) have been run, and Pearson Correlation Test has been used for identify correlations between items and components and the results have been assessed in 0.01 and 0.05 significant level. RMKO was grouped into eight factors. These factors are “Socialization”, “To be away and Relaxing”, “Experiencing the Power of Motorcycle”, “Physical Activity and Healthy”, “Renovate/Developed”, “Self-Competition /Achievement”, “Exemplifying”, “Recognition”. As a result, it can be concluded that “The Motivational Factor Scale of Recreational Motorcycle Usage - RMKO” has reliability and validity in the estimation of the reasons of recreational usage of motorcycle for the Turkish population.

Keywords: Motivational Factors, Validity and Reliability, Recreation, Motorcycle

1. Introduction

Riding motorcycle is increasingly popular all around world. There are four types of motorcycle usage. These are; a) professional, b) commercial, c) commute or transportation in/out of urban and d) leisure (Haworth, 2012). Usage of motorcycle for commute or transportation can be reason of economic and/or parking problem, but leisure usage is a way of life (Strutter, 2010).

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Motorcycle can be accepted as a killing machine and at the same time, it gives fun, amusement and recreational satisfaction. Benefit or loss depends on how to use it. Increasing in the leisure and commute or transportation usage of motorcycle crashes increase. For reducing this, there are many trainings programs, local and governmental measures to underline this problem and protect the riders in many countries (Daniello et al. 2009; Huth et al. 2014).

It is clear that professional usage and commercial usage are different. If someone is riding commercial motorcycle, it is commercial usage. Professional usage is for racing and competition. But, commercial usage of motorcycle (like takeaway, taxi, and post service) is business, means of production and for getting profit or generate economic benefit.

Many cities are getting crowded and have heavy traffics. In the center of them, there is not sufficient parking area and/or expensive parking for private cars. So, individuals give up using private car in urban and do not want to use public transportation for keep away from crowded cabins, travel time and cost. Because of these problems, some people prefer to use motorcycle for commuting or transportation for being free and not depended.

Recreational motorcycle usage is riding for hobbies and/or recreational commuting to reach/go/see somewhere alone or with a group. If riding is not life style, it excludes commuting to work/home or obligation, but if life style, it can be accepted recreational. Recreational riding is a part of motorcycle owner's recreational life. Many of the users describe the two wheels as "two wings". It is more than a car. It is friend, wind, wings, speed, freedom and this is the life style for them. Riding is more than commuting for this kind user. It is leisure, image, actualization, realization, expression, gratification, escaping, meeting, reaching, belong to a social class/group and many other emotional and psychological outcomes.

Recreational motorcycle usage can be accepted as serious leisure activity. Stebbins defines activities which describe the person's way of life as serious leisure activity (Stebbins, 1982, 2007). Serious leisure activity is an activity that participants can create nonprofessional career and/or social career with using and upgrading their knowledge and skills on hobbyist, amateur or volunteer activities. All serious leisure activities have social and personal rewards (Stebbins, 2010).

Personal rewards contain a) self-gratification, b) self-expression, c) personal enrichment, d) self-image, e) self-actualization, f) re-creation and financial return and Social rewards brings participants; a) group accomplishment, b) social attraction, c) help to the covering and development of the group. Recreational motorcycle usage is hobbyist and it brings all personal and social rewards. Seibert, Kraimer, and Liden conclude that social career has positive affect on professional career or social career can be transferred to professional career or vice versa (Seibert et al. 2001). It can be said that serious leisure activities bring, create and/or effect professional and social success.

Krige; identify motorcyclists in to five groups which have different identity, personality, social character, motivational factor for ridings, leisure and life expectations and ethos (Krige, 1995). These groups are as follows;

- The “Outlaws”: They are part of usually well-organized ‘bikie group’ and they ride for lifestyle, have “patch gang” personality, drink alcohol and other pleasure-inducing substances, are angry boys.
- The “Boy Wonders”: They are often young, inexperienced, belong to a group but not to a club, love challenge, drive fast, push their limits, and open for crashes.
- The “Dirts”: They ride off road motorcycle, usually belong to a club/group, drive together, and have love of ridings.
- The “Commuters”: They ride commute/transportation for economy, easy parking etc., have right-winger motorcycle, usually they are not willing to belonging to a group.
- The “Weekend Warriors”: They usually ride with a group, are club enthusiasts/members, older, with higher income, well educated, and looking for hobby.

The big and main problem is that why motorcycle usage is increasing and what the main motivators are. Researcher use motivational theories to explain this question. One of the main theories used for this purpose is Steg’s Motivation for Vehicle Use Theory derived from The Dittmar’s Material Possessions Theory (Dittmar, 1992). This theory has three categories (Chang and Lai, 2015). These are; a) Instrumental motivation or convenience of car use; speed, flexibility, travel time and cost, availability, loading capacity. Using private car has higher effective value than public transportation (Steg, 2003; Steg et al. 2001). b) Affective motivation explains emotion like excitement, pleasure, feelings evoked by using car (Steg, 2005). c) Symbolic motivation which explain a person’s identity, expression of self-image, social status, psychosocial value of car (Allen, 2002).

In addition to this, Self-determination Theory (SDT) developed by Ryan and Deci which includes intrinsic and extrinsic motivations can be used why people want to ride motorcycle (Ryan and Deci, 2000). Intrinsic motivation explains the insider feelings motivate people to act or to do something fulfilling their goals without any external rewards’ expectation. Reducing travelling time, having more and more flexibility/freedom are extrinsic side of motor user’s motivations for using instead of using private car. And also, commute and transportation is a basic need. To satisfying this need there are only two ways. One is having private car/ motorcycle other is using public or rental transportation possibility. Having any materials give two satisfactions. One is material satisfaction (having private car/ motorcycle) and upper level needs like belonging to a group, status and self-realization which can be explained Maslow Need Theory (Ibrahim and Cordes, 2002), second is show off benefits (Dittmar, 1992). Furthermore; Activity Theory (Engeström et al. 2003) and Achievement

Goal Theory (Pintrich, 2000) can be used for explaining motorcycle usage. Achievement Goal Theory has two sub dimensions as goal oriented and ego oriented achievements. While sportive usage of motorcycle usage need ego oriented personality for challenge and competition with others, recreational and commute usages are goal oriented. Activity Theory explains both sportive and recreational usage of motorcycle for getting physical and mental health and wellness.

From the point of view of SDT, instrumental motivation for motorcycle usage is extrinsic motivations, but, affective motivation carries both extrinsic (example: for showing off their prestige) and intrinsic (example: for interesting and exciting) affective motivations according to emotions aroused by driving/having motorcycle (Anable and Gatersleben, 2005). Symbolic motivations of motorcycle usage are extrinsic touching motivations for motorcycle users (Steg and Tertoolen, 1999).

In the literature, there are many studies about professional usage, helmet usage, accidents, about risk taking etc. But, there are limited researches about recreational motorcycle usage and the motivators (Auster, 2001). First of the popular studies is Witt and Bishop's Five Common Themes which include basically centered explaining motivation for leisure behavior (Witt and Bishop, 2009). These are; catharsis for explaining purging of emotion, emotional tension and anxiety, compensation explain compensatory mechanism for goals whose direct achievement blocked, surplus energy explain inadequacy to define the conditions referring to a need for activity or impulse would take place, relaxation is used both recreation and restoration theories explain intensive involvement in or preoccupation for restoring himself and task generalization is used for comparison of leisure and work for tendency of individuals to choose recreational activities same or similar activities which support their work. Second is generalized and systematization by Schulz, Gresch, and Kerwien (1991) and Schulz 's motivation and emotion of leisure motivators of motorcycle user in to 11 scales are as follows; Escapism, Safety, Flow, Control, Social aspects, Competence, Thrill, Rivalry, Identification, Hedonism and Dynamic joys (Schulz, 1993, 1994). The third, Jackson and Eklund offer to explain individuals' leisure motivators with physical leisurely experiences (Jackson and Eklund, 2002).

These studies are not sufficient to explain the motivational factors of recreational motorcycle usage. For this reason this study was done to fill in this gap.

2. Method

The main aim of this research is to develop "The Motivational Factors Scale of Recreational Motorcycle Usage - RMKO" and define the reliability and validity for Turkish population.

The study is descriptive. Sampling group was consisted of 947 volunteer participants all around Turkey. Determination of the exact number of recreational motorcycle user is not easy and real numbers of them are not known.

For data collection, e-questionnaire form sent to participants who have Facebook group and Associations of Recreational Motorcycle User, Motorcycle Clubs and Institutions as email. 948 feedbacks were accepted between 01st December 2016 and 31th May 2017. Electronic questionnaire form include demographic variables and 45 motivational items derived from (Kaplan Kalkan . and Ardahan, 2012; Ibrahim and Cordes, 2002; Deci, 1975; Witt and Bishop, 2009; Schulz et al. 1991; Schulz, 1994; Kyle et al. 2006; Jackson and Eklund, 2002; Ardahan, 2012; Ardahan and Mert, 2014; Buchanan, 1985; Christmas et al. 2009; Deci and Ryan, 1985, 1991; Driver, 1983; Manfreda et al. 1996) with Likert scale which has five-point (1: strongly disagree to 5: strongly agree) was used.

Six of items of 45 items excluded due to low initial communalities (<0.40) in after first Exploratory Factor Analysis (EFA). For the validity of EFA with rest 39 items, Bartlett's Test of Sphericity and Kaiser–Meyer–Oklin (KMO) have been run, and to identify correlations between items and components Pearson Correlation Test has been used and the results have been assessed in 0.01 and 0.05 significant level.

3. Findings

As it seems in Table-1, Kaiser–Meyer–Oklin value (KMO) of RMKO was 0.931 for 39 items. If The KMO value is over from 0.6 and Chi-square of Bartlett's Test of Sphericity test ($X^2=21980.778$, $P=0.000$) have lower p-value than 0.5, it can be accepted (Kaiser, 1974), Varimax rotation was run on 39 items for RMKO given in Table-1 and obtained eight factors which has bigger than one Eigen values and totally Cronbach's alpha value of RMKO is 0.940 and each Cronbach's alpha values of factors are between 0.725 and 0.919. This shows reliability of RMKO has statistically high score. Explained variance of RMKO's eight factors is %66.212. The meaning of this value that RMKO is reliable enough. Motivational factors of RMKO are as follows;

F1- Socialization factor describe the created emotional and physical closeness/relation between the participants and it includes “Accompany with friends from my social life”, “Accompany with familiar people in around me”, “Make new social contact/friendship/meet new people”, “Accompany with friends from my school/work”, “Accompany with similar people”, “Belonging to a motorcycle user group”, “Accompany with my partner (man/women)” and “Accompany with my family member”. Cronbach's Alpha value is 0.876 and its eigenvalues is 4.394.

F2- To be away and Relaxing factor defines escaping and/or being away reasons from crowd, daily routine and getting physical and/or mental rehabilitation and relaxing and it includes “Escape from crowd and stress”, “Motorcycle give me calmness and silence”,



“Escape from daily routine”, “Have a rest for a while”, “Using motor makes me renew and refresh”, “For getting mental and physical rehabilitation and enhance” and “Motorcycle give me independence”. Cronbach's Alpha value is 0.890 and its eigenvalues is 4.373.

F3- Experiencing the Power of Motorcycle factor explain driving to nature or somewhere, getting physical and mental power and energy of using motorcycle and being in nature or outdoor and it includes “Motorcycle give me mental and physical power and energy”, “Experience power and movement”, “Discover nature with power and movement”, “For being in and/or reaching to nature or somewhere” and “Get excited from attraction of motorcycle”. Cronbach's Alpha value is 0.846 and its eigenvalues is 3.673..

F4- Physical Activity and Healthy factor define effect for using motorcycle on physical activity and physical health, and it includes “For improving physical healthy”, “For exercising and training”, “For doing physical activity” and “Using motorcycle protect from many chronic disease”. Cronbach's Alpha value is 0.867 and its eigenvalues is 3.063.

F5- Renovate/Developed factor defines renovating and/or developing skills and it includes “Using motorcycle is good for skill-building in outdoor”, “Using motorcycle gives me experience the equipment’s power”, “To struggle for risk”, “To Cope with difficulties and aggravated circumstances” and “For developing and get new skills”. Cronbach's Alpha value is 0.829 and its eigenvalues is 2.874.

F6: Self-Competition /Achievement factor describes self-competition and realization and it includes “For self-competition”, “For self-realization”, “To develop fighting spirit” and “Have a passion for achievement”. Cronbach's Alpha value is 0.841 and its eigenvalues is 2.605.

F7: Exemplifying factor defines importance for being a model for family members and others and it includes “Exemplifying for around me”, “Exemplifying for individuals in society” and “Exemplifying for family members”. Cronbach's Alpha value is 0.919 and its eigenvalues is 2.585.

Table-1: Factor Analysis of the Motivational Factors of Using Motorcycle

Kaiser-Meyer-Olkin Measure of Sampling Adequacy:	0.931									
Bartlett's Test of Sphericity Approx. Chi-Square:	21980.778									
df:	741									
Sig.	0.000									
Components and Factor Loadings										
Items	F1	F2	F3	F4	F5	F6	F7	F8	Com.	M ± SD
F11	0.731								0.672	3.29±1.36
F12	0.722								0.637	2.48±1.35
F13	0.718								0.710	3.27±1.31
F14	0.671								0.537	2.38±1.30
F15	0.669								0.666	3.64±1.27
F16	0.631								0.631	2.86±1.39
F17	0.627								0.526	2.61±1.40
F18	0.594								0.616	2.17±1.28
F21		0.835							0.774	4.44±0.87
F22		0.772							0.720	4.24±1.02
F23		0.767							0.692	4.39±0.89
F24		0.707							0.657	4.08±1.11
F25		0.589							0.603	4.40±0.87
F26		0.568							0.620	4.12±1.05
F27		0.517							0.557	4.72±0.66
F31			0.808						0.722	4.22±0.98
F32			0.787						0.746	4.24±0.95
F33			0.731						0.692	4.23±0.94
F34			0.623						0.571	4.23±0.94
F35			0.572						0.510	4.28±0.96
F41				0.863					0.838	3.13±1.34

F42									0.780	0.740	2.97±1.32
F43									0.739	0.709	3.38±1.26
F44									0.686	0.613	3.02±1.36
F51									0.745	0.662	3.59±1.19
F52									0.710	0.625	3.34±1.23
F53									0.685	0.675	3.86±1.13
F54									0.660	0.636	3.88±1.10
F55									0.467	0.536	4.15±1.00
F61									0.695	0.692	3.28±1.38
F62									0.659	0.616	3.51±1.31
F63									0.638	0.690	3.72±1.21
F64									0.634	0.695	3.01±1.37
F71									0.828	0.882	2.99±1.41
F72									0.813	0.835	3.09±1.40
F73									0.774	0.778	2.61±1.34
F81									0.721	0.610	2.45±1.30
F82									0.676	0.571	2.51±1.43
F83									0.593	0.561	2.25±1.25
Cronbach's Alpha	0.876	0.890	0.846	0.867	0.829	0.841	0.919	0.725	For all scale Cronbach's Alpha 0.940		
Rotated Eigenvalues	4.394	4.373	3.673	3.063	2.874	2.605	2.585	2.256			
Rotated variance (%)	11.267	11.213	9.417	7.853	7.369	6.679	6.628	5.785			
Rot. Cum. Variance (%)	11.267	22.480	31.898	39.751	47.120	53.799	60.427	66.212			

F8: Recognition factor defines social status and recognition as external motivators and it includes “Want recognition and draw attention” and “To get social power”. It makes me happy to say other I’m a Motorcycle User”. Cronbach's Alpha value is 0.725 and its eigenvalues is 2.256.

Correlations matrix between components and items were given in Table-2. As seen in Table; the correlation matrix confirms the items were replaced in right factors and items have highest correlation with the relevant factors after EFA.

Table-2: Pearson Correlations between items and components

Items	F1	F2	F3	F4	F5	F6	F7	F8
F11	0.780**	0.293**	0.240**	0.317**	0.278**	0.365**	0.383**	0.392**
F12	0.743**	0.133**	0.127**	0.352**	0.204**	0.327**	0.416**	0.354**
F13	0.789**	0.295**	0.279**	0.338**	0.311**	0.410**	0.380**	0.471**
F14	0.722**	0.135**	0.126**	0.325**	0.216**	0.341**	0.385**	0.393**
F15	0.724**	0.333**	0.300**	0.279**	0.309**	0.341**	0.343**	0.336**
F16	0.758**	0.226**	0.205**	0.341**	0.306**	0.403**	0.414**	0.499**
F17	0.696**	0.172**	0.180**	0.281**	0.259**	0.345**	0.407**	0.365**
F18	0.637**	0.081*	0.090**	0.304**	0.179**	0.303**	0.420**	0.300**
F21	0.212**	0.855**	0.470**	0.284**	0.393**	0.381**	0.237**	0.062
F22	0.214**	0.825**	0.461**	0.332**	0.423**	0.375**	0.270**	0.040
F23	0.220**	0.814**	0.461**	0.292**	0.379**	0.417**	0.206**	0.062
F24	0.241**	0.801**	0.417**	0.384**	0.390**	0.415**	0.317**	0.067*
F25	0.245**	0.758**	0.550**	0.368**	0.452**	0.400**	0.180**	0.083*
F26	0.267**	0.757**	0.482**	0.408**	0.448**	0.561**	0.267**	0.141**
F27	0.131**	0.649**	0.566**	0.167**	0.414**	0.264**	0.112**	0.009
F31	0.184**	0.459**	0.825**	0.268**	0.453**	0.339**	0.179**	0.134**
F32	0.199**	0.503**	0.851**	0.270**	0.549**	0.376**	0.181**	0.136**
F33	0.232**	0.520**	0.837**	0.325**	0.522**	0.358**	0.231**	0.105**
F34	0.209**	0.488**	0.734**	0.266**	0.443**	0.285**	0.202**	0.024
F35	0.217**	0.440**	0.688**	0.220**	0.470**	0.316**	0.157**	0.221**
F41	0.361**	0.333**	0.276**	0.905**	0.384**	0.425**	0.369**	0.203**
F42	0.364**	0.309**	0.263**	0.857**	0.415**	0.474**	0.382**	0.263**
F43	0.390**	0.397**	0.324**	0.835**	0.427**	0.498**	0.356**	0.212**

F44	0.354**	0.380**	0.296**	0.787**	0.382**	0.406**	0.389**	0.244**
F51	0.267**	0.362**	0.449**	0.338**	0.785**	0.335**	0.226**	0.144**
F52	0.321**	0.289**	0.397**	0.370**	0.758**	0.378**	0.286**	0.259**
F53	0.240**	0.461**	0.512**	0.350**	0.810**	0.468**	0.276**	0.204**
F54	0.260**	0.425**	0.542**	0.375**	0.791**	0.421**	0.256**	0.165**
F55	0.271**	0.527**	0.506**	0.406**	0.712**	0.494**	0.247**	0.178**
F61	0.368**	0.445**	0.329**	0.406**	0.433**	0.837**	0.405**	0.349**
F62	0.386**	0.426**	0.350**	0.386**	0.363**	0.784**	0.354**	0.291**
F63	0.378**	0.491**	0.431**	0.472**	0.556**	0.829**	0.357**	0.252**
F64	0.464**	0.369**	0.301**	0.490**	0.431**	0.843**	0.433**	0.467**
F71	0.515**	0.300**	0.231**	0.420**	0.320**	0.442**	0.962**	0.378**
F72	0.492**	0.278**	0.221**	0.387**	0.311**	0.422**	0.935**	0.370**
F73	0.492**	0.260**	0.219**	0.426**	0.300**	0.450**	0.886**	0.344**
F81	0.384**	0.068*	0.130**	0.199**	0.226**	0.319**	0.293**	0.800**
F82	0.426**	0.092**	0.129**	0.208**	0.187**	0.320**	0.343**	0.820**
F83	0.478**	0.052	0.122**	0.254**	0.185**	0.367**	0.307**	0.790**

** p<0.01, * p<0.05

Table-3: Factors Name and Item List

F1-	F11- Accompany with friends from my social life
Socialization	F12- Accompany with familiar people in around me
	F13- Make new social contact/friendship/meet new people
	F14- Accompany with friends from my school/work
	F15- Accompany with similar people
	F16- Belonging to a motorcycle user group
	F17- Accompany with my partner (man/women)
	F18- Accompany with my family member
	F2-

To be Away and Relaxing	F22- Motorcycle give me calmness and silence F23- Escape from daily routine F24- Have a rest for a while F25- Using motor makes me renew and refresh F26- For getting mental and physical rehabilitation and enhance F27- Motorcycle give me independence
F3- Experiencing The Power of Motorcycle	F31- Motorcycle give me mental and physical power and energy F32- Experience power and movement F33- Discover nature with power and movement F34- For being in and/or reaching to nature or somewhere F35- Get excited from attraction of motorcycle
F4- Physical Activity and Healthy	F41- For improving physical healthy F42- For exercising and training F43- For doing physical activity F44- Using motorcycle protect from many chronic disease
F5- Renovate/Developed	F51- Using motorcycle is good for skill-building in outdoor F52- Using motorcycle gives me experience the equipment's power F53- To struggle for risk F54- To Cope with difficulties and aggravated circumstances F55- For developing and get new skills
F6- Self-Competition /Achievement	F61- For self-competition F62- For self-realization F63- To develop fighting spirit F64- Have a passion for achievement
F7- Exemplifying	F71- Exemplifying for around me F72- Exemplifying for individuals in society F73- Exemplifying for family members
F8-	F81- Want recognition and draw attention

Recognition	F82- It makes me happy to say other I'm a Motorcycle User
	F83- To get social power

4. Discussion

This paper promotes “The Motivational Factors Scale of Recreational Motorcycle Usage” describes reliability and validity of RMKO for Turkish population.

Tests result show that RMKO is an sufficient validity to clarify motivational factors to recreational motorcycle usage for Turkish population. The value of models' Cronbach's Alpha is 0.940 and it proves internal consistency of the identified sub-factors of scale. It certifies that sample size is satisfactorily big enough (MacCallum et al. 1999). The explained variance by these factors was %66.212 for RMKO. KMO was found 0.9310 which is perfect when over 0.9 and this value are suitable for EFA (Şencan, 2005).

The RMKO' factors can be verified by some theories. The Need Theory supports and explains RMKO's sub dimensions. “To be away and Relaxing” and “Physical Activity and Healthy” items can be accepted in physical needs, “Socialization”, “Self-Competition /Achievement”, “Experiencing the Power of Motorcycle” and “Renovate/Developed” sub-dimensions explain Self-actualisation Need and Belonging Need, “Recognition” factor is fall in to Social Status Need and “Exemplifying” factor is related with Self-actualisation Need (Ibrahim and Cordes, 2002; Anable and Gatersleben, 2005; Steg and Tertoolen, 1999).

In addition to these, “Socialization”, “To be away and Relaxing”, “Experiencing the Power of Motorcycle”, “Physical Activity and Healthy”, “Renovate/Developed” and “Self-Competition /Achievement” sub-dimensions are related internal motivational factor, “Experiencing the Power of Motorcycle”, “Exemplifying” and “Recognition” are related external motivational and all these can be explained by Deci and Ryan's (1985) Self Determination Theory.

At the same time, motivational factors of RMKO can explainable by Achievement Goal Theory (Pintrich, 2000). “Socialization”, “To be away and Relaxing”, “Experiencing the Power of Motorcycle”, “Physical Activity and Healthy”, “Experiencing the Power of Motorcycle”, “Renovate/Developed” and “Self-Competition /Achievement” sub-dimensions are related goal oriented achievements, “Exemplifying” and “Recognition” is related ego oriented achievements. Recreational motorcycle usage is needed active participation which means being active as mentally, emotionally and physically, and this is supported by the Activity Theory (Engeström et al. 2003).

The RMKO' factors overlap confirm the validity of RMKO with the Driver's Master list of items (Driver, 1983), the results of studies done by Kaplan Kalkan and Ardahan (2012), Ardahan (2012), Deci (1975), Ardahan and Mert (2013, 2014), Buchanan (1985), Christmas et al. (2009), Manfredi et al. (1996), Deci and Ryan (1985, 1991), Ibrahim and Cordes

(2002), Jackson and Eklund (2002), Kyle et al. (2006), Steg et al. (2001), Schulz et al.(1991), Shchulz (1993, 1994), and Witt and Bishop (2009).

5. Conclusion

Finally, results show that The Motivational Factors Scale of Recreational Motorcycle Usage - RMKO were valid and reliable in the usage for Turkish population.

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