



Kabul Edilmiş Araştırma Makalesi (Düzenlenmemiş Sürüm)

Accepted Research Article (Uncorrected Version)

Makale Başlığı / Title

Üç yazılım firmasında yazılım süreç değişimlerinin gözlenen etkileri: Endüstriyel keşif vaka çalışması

Observed effects of software processes change in three software firms: Industrial exploratory case study

Yazarlar / Authors

Murat YILMAZ

Referans No / Reference No

PAJES-03708

DOI

10.5505/pajes.2018.03708

Bu PDF dosyası yukarıda bilgileri verilen kabul edilmiş araştırma makalesini içermektedir. Sayfa düzeni, dizgileme ve son inceleme işlemleri henüz tamamlanmamış olduğundan, bu düzenlenmemiş sürüm bazı üretim ve dizgi hataları içerebilir.

This PDF file contains the accepted research article whose information given above. Since copyediting, typesetting and final review processes are not completed yet, this uncorrected version may include some production and typesetting errors.

" ± a i Yi a " i ① i ± μ E ± " s a s a - ① s ° ¥ C S s i a ① C s t o s s u c e s u o d ① p i c y y " > s c o s s " Y i z i i
E i r i s " ¥ E ① ① i Y i ① ¥ ° ¥ ① ¥ " Q i c i ¥ Y n ¥ " " o A d j g z p p f s k u i n d e " K Y y a s " i c ① S s i a " S q s
S s ① c s a s ① i C y p i s " a a " « " c s o s a a Y s a (exploratory case study s u p o a s " μ c y " s ± μ E ± " s a " C a " a ①
S μ a " s a " ① s " s " s " a " Y a ① a a Y s a " k o n u d a s i l u a n c t d e n e y i m e s e b i l g i r i k i m e s h i m i. B u " > ±
μ ① a " i c ① i ① ¥ " a " « Y s s a " > s " ¥ " C s " Y o s Y s c y s s ± μ ① s " a s s i a " a i " S e a y S s " a y s " i
S Y " s a Y a ① Y a " s ① " f l ¥ E r " c y ° " 2 s i " s " c a s " s ① a a Y s a " C a i s s y s a c f s a " ① ¥ P m a " ①
> ¥ ① " ¥ S " i " ¥ a " s " c a " i C z i i " ① W a " ¥ a " ¥ ¥ s c e s " a p s " 2 k " s k a a " s " a " Y " O s " C s " a " c
i " S ¥ " ¥ a " ¥ a " 2 ± ① E ± " s a c s " a " E i r i s " ¥ Y ① E ¥ " i " r y z ± " ¥ ± " i " S s " Y a s " « ? s " S s " a
μ ① a " i c ① i ① " ① ① " ¥ i " ¥ ¥ c y a " 2 i ① ① c o s s a q " ① S s p a s " ① Y a " z i " ① s i " ① ¥ a " ¥ c e a
2 ± ① E ± " s c s s ° s " S s " s " c a " > i " E i " i " Y s " z ± ¥ ± i " S s " Y i i " e i j s " ¥ ¥ a " ¥ μ s " c a s S i a " ¥ C Y i s
¥ a Y ¥ ① c i μ ¥ " s c s C " s c s s " s Y a ① " ① s " « ① " s a Y a ① a a ① " " ± a ± a " s " > ¥ ① " ¥ S " °
" S i " c y ① Y i " E i μ s M a " ¥ ① c i μ ¥ " μ ① a " i " c i " S " C y s y a E " ± a " " S " s " i " μ s " ¥ a Y i " z i μ s " a
S ± " s a a " s a " C i 2 ¥ s " μ s " ① a " a " E i " " ¥ μ " " Y ① i a " i " S i " C " Y " ① " d a " z i d e " a d i l e n s u l g u l a " a " c ± c ±
μ ① a " i c ① ¥ Y ¥ ① " ± μ ① a " i c ① Y i " μ s " a " s a i i " ① ¥ i a " c i " s " c " Y " ① " μ s " a " ① ¥ a " a " ①
« " s " s " s " Y " s a Y a ① a " a " ① " " Y " Y " ① " s " a " ① c a " ① " s " ① c e a " ① " s " i " s " i " s " i " ± " O ± a " E " F
x i " s " s " ± " « a ± c e ± a " Y s " " C s s " C a s c a " O a " ¥ ① " i " c s s i " i " ¥ ¥ a " Y i " 2 s c a " ± " i " S " Y " Y i
s ① " a " ① " ± μ ① a " i " s μ a c e s " i " s " y " o " ¥ c y i " ① C s u i a " ¥ c s i " Y s i " S s " ± " S " i " C a " ± s u i " s o c ±
c s " o " i " ① " 2 i " S i a " Y a " ¥ " s μ a c e s " i " s " y " o " ¥ c y i " ① C s u i a " ¥ c s i " Y s i " S s " ± " S " i " C a " ± s u i " s o c ±
Y s μ s " a " Y a ① a " > s a " C i 2 ¥ s " μ s s " s " a " s s a s " a " ± a Y ± O ± S s " i " S " c s s a " ¥ c " s a s " ¥ ① " μ
S ± " ± " ± " ¥ " i " ① s " μ " a " s " s " s " i " ① a " s " y " c " c o " « " S Y c s S Y " s s a i s " a s s s a " C a " a " ¥ c s Y s a " c
c « Y i " ¥ " ¥ C i " r i a " s " o " i " a " s " ¥ c " > ¥ ① " 2 C i " ① ¥ s " ¥ μ ① a " i " c " Y " ① " " (i c i
C s a " c s " r i a " " ¥ " ¥ " s s a " s a a a " > ¥ ① " 2 s " a " s " a " ¥ " i
E ① r i " i " i " ¥ ① ¥ " ① i " ¥ " ¥ s i " ¥ a " i " Y s μ s a " ① " c e " 2 o " ① a " μ i s " s " a " a " " c e " ± c
2 i " Z s a " > s a " μ ① a " i " c ① i " ¥ a " ¥ a " i a " ± μ s s ± a " C s " S a " Y o s s " i a " ¥ " > ¥ i " C y " i " c " s " S " s " y " C " ¥
① i " ① ¥ a " Y i " S " ¥ " « ± " c " ± ① i " i " S " ¥ " ¥ a " ¥ " s " ① s " c s " c " s " c " a " Y a " a " Y " s " a " c i " ① " ¥ s " S " y " ① " s " i " i
> ¥ ① " c « Y i " Y ¥ ① " ± μ ① a " i c ① " μ s " ① a " a y " ① ¥ E i a " ¥ C " ¥ s " i " o " ① ① ① a " ¥ ① " s a " i a " s " S ① a a
S s μ a " s s " s « Y " > s s a c a " 2 i μ s " μ s " ① a " ¥ a " e i " « a s " Y a O " Y a " Y μ s " s " s " s " a " s " s " - ¥ s
S « s μ " s " a " c s s " s Y a ① E ① " c " y " ① s s i " C y s " ① s s " s " s " y " ① " ¥ O " ¥ " s " s a " s " c s " a " c s
μ s " ① a " a " μ s " s " c " Y ① a " E " a " a " ¥ " i " ① μ s " i " c s " s " s " ¥ c " y " s " s u p a " Y s " o " ① " ① " c " y " s " « Y " c
S « ± " ± μ E ± " s c s " s ① a " > s s a c " ① i " C " ① ① " y " ① " E " c " i " ¥ ① " c i " S o " q i " Y " s " c s " a " c s
s " ① a " S « ± " s " Y s " ¥ " i " c y a " > ¥ " ① " i " ① μ s " ① i " Y a " ① c o " ① " ¥ " s " ¥ " y " c e y " s " c s " s " ① " s " c s
S s Y s " ¥ " ¥ ① " S s " s " ¥ " ① i " ① " o " l u m s u z " Y " k u f u m " y a " i d a " s o s y a l " Y " a " s " a " s " a " ① " Y a " " S " " ① " S " " 2
μ ① a " Y i " i " S " ¥ " i " μ i " > ¥ " c i " S " i " Y " ① " S " a " c e i " 2 s " c e a " 2 s " c e a " ① " c " i " s " a " ± " ① " ± " ① " ¥ " " Y
S Y ① i " i " c i " S " ¥ C " ¥ a " " c e " ± c " > s a " μ s " S " s " a " c a " b a " a " > ① " i " S " s i s " Y s " Y " a " i " ① " i " c i " " ¥ " s " ①
" ± " C s " a " c s " a a " s c s c e a " ± " ± " s " μ s " ① a " c e a " c i " i " s " y " o " a " a " Y s " - a u " s " Y a O a c a s " s a " c a " i
2 s s s " C s " a " c s " a " μ s " Y a c a μ s " μ s " ① i a " ① c s " " ¥ " s " s " y o e ± s " s " y " c " c e a s " a p " E E " i " S i c s " y " a " 2
μ ① a " i " c ① ¥ a " Y s s " s s " ¥ " E ¥ " c " y " s " ① " 2 i " C s " i " c e " c s " i " a " a s μ " s " i a " Y a " i a " > s O " s " c " Y s
" s O " s " c s s " a " ① " ± " C s " a " c s " ¥ " i " o ① i " ¥ " f l ¥ s " S i s μ " ± s s " s " a " Y s " y s " s u " p a " ① s " s " E z " ① C
i a " Y " ° " ① μ i " s a " s c " Y s " i " Y a " a " ¥ " i " a " c " Y a ① " c i " b " ① " i " ¥ " s " s " c e i " C s i " H a i " c s s " ① " " c " " ¥ " c
« " s " s " s " ① s " « ① " s a " c s " a " x i " Y i " c " i " a " c " f " i " ① " y " s " ¥ O " ± a " y s " « ¥ ± " Y " μ " ¥ " « " s " s " i " Y " ①
C s " a " c s " s " Y s " S « a " ± " s " ① a " ¥ a " Y i " C Y s " ① s " s " c s " s " μ s " ① " i " " ¥ " « " s " s " s " a " i
i a " Y " ° " ① ¥ Y i " s " ¥ " Y i " O " ¥ " ¥ " c " ① " i " a " ¥ " s " ① " c e s " ± " ① " ① " ① " Y " 2 a s " S s " i " C s a " a " s " s " s " ①
μ s " ① a " a " c " E i " " ¥ " " ¥ ① " c i " μ ① a " i " c ① i " ① " a " Y " a " μ i " a " ¥ " ¥ a " C " ¥ i " μ s " ① a i " a " c " E s " n e y " i " c y " ①
μ ① a " i " c ① i " ① " E i " C " ¥ " μ s " - c s " s " c " y " r " c z " y " c e s " p i " y " ① " 2 a " Y " ¥ O " i " ① " ¥ a " i " E ①
b ¥ " E ¥ " i " ① " ¥ " E " 2 i a " ¥ s " s C a " a a " Y s a " y s " ± c " y " s " s a μ " a s " > a " c s s y C s " a s " 2 2 s i a " ¥ s " i " S c e i " S s " y " ①
C s " a " c s " a " a " s " a a " Y s " μ s " ① a " s a c s a " ¥ ① S q " i 2 " i i " Y a " a " c " c " x i a " Y " ¥ " ¥ O " ¥ " c s s " ¥ μ i
" ¥ c e s " ① " C a " S s " ① " s a " s " ① s " s " ① " 2 i " ① c i " H i " c e i " S " y " - i " S " Y " μ i " ① " E " Y " i " ¥ " S " y " C " y " a " Y
" ± " ± " s c e y " s " a " c e y " " ¥ ① S i " / " ¥ ① c s " E " Y " s " S " s " a " s " c " a " g e t s k o l m a y a b i l i r " ¥ c s
E i " " ¥ " « " Y s " a o " C i " S " ¥ " > ¥ ① " « " E s " a " ¥ ① s " μ « a " Y " p r o j e " i " S " a " s " o " a " g e t s k o l m a y a b i l i r " ¥ c s
o " C i " S " ¥ " > ¥ ① " μ s " ① a " a " c " y " ① c s " a " Y a ① " " C d a h a c y i " Y " O " ¥ " S i i " a " Y " / " y " ① " c " y " a " ¥ " s " p ± s ①
¥ a " i " ① s " s " y " c " ± μ E ± " s c s " s ① E i " " ¥ " ① " ¥ a " ¥ s " " C y " s " z o s " s a " S y " a " c e i " > ¥ ① " c i " c " y " ① " s " Y a s " >
C s " a " a c s s " a a " Y s " > ± " C " c " y " ① c s a a " μ s " ① a " s a " > ¥ ① " ¥ C " ± μ E ± " s " ① a " 2 C i " S " ±
" ① i " ¥ c " - i " ① c « " c ① s a " a " ¥ a " c e i " i a " i " ① i " S " C " S " a " ± " ¥ s " s " s " Y " ① Q y " a " ¥ 2 " i " ± " ¥ a " i " f i " Y " ①
" ① i " c e y a " ¥ " 2 i " ¥ ① S i " ① " i " ① c « " c ① s a " i n c e l e n e m o d e l l e r i m e v c u t t u r " S " ¥ " i " Y " ¥ O " y " a " i " ① " ① " ①
" ① i " C " i " ① " ¥ a " ¥ " ¥ μ " Y " i " ① " ¥ ① i a " " ¥ ① S i " i " ① " Y " C " y a " Y " ¥ a " ¥ c i " ① " ¥ a " 2 i " ① " i " c e " > i
a s " a " " S s " ① s a c s " Y y o " O " s " c s " a " a a " s c e s " s " a " ① S " S " ± " ± " ± " > i " ① c e " > i
- s " ① a " a " c " x i a " Y " ¥ " " ¥ O " ¥ a " Y i " μ s " - a " s a i i " > ① « " S " ± " ± " E " ① S " s " a " c s " s " a a " > ¥ ①
s " c s " c e a " μ s " ① a " a " μ s " s " c " Y ① a " E " a " i i i ¥ " a " c e i " S " i " ± " i " s " > " ¥ ① S i " S " i " ① Y i " « ± " -
> ¥ " i " a " « " S μ " s " a " ① " c " s " ¥ S " μ ① a " i " c " S " y " a " a e i " a " O a " Y " s " a " f i " s " μ s " > ¥ " s " i " S " 2 k
Y s " s " s " o " a " i " c ① " ¥ " " ¥ " E i " ① i " S " ¥ O " e k t i r i l " B u " s a " Y " ¥ ① " s " s " a i ± C i " C a " S s " c ① s " a a " s " « " s a s s

« ± ° ±¥® 9s' a ş Ö s a ° a ş ± ® c s s ¥ Çörek simlelerinde sa s s c s € ö 5 5 j a Y i Ö ¥ ¥ c
s ± " s a c s s ° s Y á ® w ¥ ® s i ° i ® ¥ i i 2 s p a ¥ s a i y o z s s s ° ± i c s ¥ c e a a y s µ
2 s s s Ç s á c s s ° á a s s s ° a s a s s µ a s 1 a c a a s e f c 2 ¥ i ° ¥ p s i ° ® i e s ¥ ¥ 1 ¥ - ¥ ® a i
µ s - á s a Ç s á c s a a ° d i ® c s a E p a Y á p ¥ ® « ® ± s c ® a a s Y p s a a ° s c s a c a
- s µ s á c s µ s c e s s ° á ® l e r i n s ö r u l a r Y i z i s p a á c e a E s ® ¥ s ¥ a ¥ a s a µ s a a Y s s ®
¶ i ® ¥ a Y i s ¥ E i ® Ç i s Y a e i ® ¥ a µ o ± s c a s a s i s k Y i s c s a µ s - a Y s s s
3 i a Y ° 2 s s s µ s i Ç s á c s s a s s Y ¶ O y i ° ¥ a ¥ ± Ç s s ¥ ® a µ i a c s s ° ® i ® ¥
" ± s ® s ° a ® c s Y s s ¥ 2 s s s ¥ µ a j p a Ç s ± ® s ± ® Y s ® Y s p a a u s s µ s c s s s Ç ¥ a
° a s s ® s Y s > ± ± a s a µ s ¶ a á c E i > ¥ ® ¥ s i ° c c s p s a c c ® E s a ¥ 1 s s ® s e f a
¶ i ® ¥ a Y a i s µ s Ç s á c s s a s s - s c s c s Y a a s a ® s a a s c s c s a a f o ®
¥ ® s i ° i ® i µ s - á s a ® i Ç ¥ µ ¥ i « ¥ ® c i s Y a a a c s a a O a ± s a s - a ® Y s s ®
± c s E a s s Y s s p a « c s s ¶ i ® i Y Y s ¥ a µ a z a y s > ¥ ® ¥ a e j s c a µ s ® Y a c a p
i ® i ¥ a Y i E i ® Ç i s i ° ¥ ® ¥ s + s ¥ i ® ¥ Y ¥ « i s s s s i s s c b s ® ¥ a i s s
Y s µ s a Y á ® " ± ± c s s Y µ i s µ Y « O a p c s s e s H s e ¶ a ¥ a ° ± p s s s s Ç s a c s a a s
2 i E i ¥ ° ¥ ® ¥ c e ¥ i ® ¥ ¥ i ® µ s a a ¥ a ¥ a a p s s s Ç s a c s a a s
E i ® Ç i s i ° ¥ ® ¥ c e ¥ i ® ¥ ± ® E p ± c e p Y s s a Y a o a a s ¥ i p e h ± s c s Y
> ¥ E ¥ i ® ¥ a s á a c s a ¥ Ç ¥ a ° a e j Y i ¥ E Y i ¥ a i a i O a a Y s ° s c a c e p ® s a s c a
« ® ± c s á µ s E i ® Ç i s « i s p o ¥ ¥ a ® s ¥ a Y s i ° ¥ i s a i µ i a Y i Ö ¥ ¥
s c s c á ö ® a i s i c i µ o a i c i ® ¥ a Y i Y ¥ a Y ¥ s p o c a i s i c i ® i 2 i > ± i
µ o i c ¥ a Y i a c s µ Y s s a c a a ® « ® E s a ¥ p s s µ a c a s s a s i s s ¥ a s
Y s s s ¶ i a E ¥ a 2 s s s s ® a Y i s µ a > s ¶ s s s s e i ¥ a e i i t i s a a p s c i ®
vermektedir " ± Ç s á c s µ i s µ a s e s s s a s a µ s a u s s a µ s a s s a s s a
µ s ¶ a á c E i ¥ ° ¥ ® c i s « a ± ± a Y s s s s ¶ C c a a c s Y s ® a u s s µ s a s s a s s a
a s s ® s Y s ¥ s s c i ° c i i ® ¥ 2 i µ s c a c i s a i s a s a a a p a Y a O a a ¥ s s a
i 2 ® i i ® ¥ a Y i s ¶ Y c s c s s a i y e s s s e s s a i c a i a a a a p a ± ± i c s µ s i 2 s s
" ± Ç s á c s µ s ° s i ® ¥ c p o ¥ c i 2 a i s Y a Y a i 2 s s s s a c s a a a p a c e f a o y ¥ c
i Ç ¥ i a Ç ¥ ® s i i a s c « - s c
E i ¥ ° ¥ ® ¥ c e ¥ i ® ¥ a Y i c c E ® s c ¥ s O ¥ ¥ a y s 2 i y s a Ç s a s s y a Y y s s s
Z s á a a c e a s a a ¥ s s Y a a E p i c s s y s s a s a s s s a a s s s e f c + ± a Y s
µ a Y s a s ¶ i c e ® > ® s y a Y i s ¶ µ ¥ µ ¥ µ s a s s s a a p a c a s a s s a s s a s s a
µ a s s a s a ¥ i c e ® > i ¥ a i > ± ± a s s a s s a a s s s a s s a s s a s s a s s a s s a s s a
Z s á a a c e a s µ Y s a ¥ Y c s « ® s > y ± ± a s s a s s a s s a s s s a s s a s s a s s a s s a s s a
s s a a c e a µ s i s ¥ s a Y i ® i e j ® ¶ a i µ a i a p ¥ c s o s i a E i 2 i s s µ i s s i y ¶ >
c i a Y ¥ ¥ s c s s i ¥ > ¥ i n d e m s µ s s c a Y s s a s s a s s a s s a s s a s s a s s a s s a s s a
¥ s a Y ¥ - « c s á a s s s a ¥ - ¥ ® * E s s s c a i s s a s s a s s a s s a s s a s s a s s a c
c ¥ ® c s s ® Ç i 2 ¥ s Y o a c ¶ « ® ± s s s s s a s s a s s a s s a s s a s s a s s a s s a
s s ° a ® c s a a Y s a Y s a a c s a a s s s s s i c p a s s a s s a s s a s s a s s a s s a s s a
s s ° a s a s s ¥ ¥ i ® Ç i 2 ¥ s Y o a c c i c e j ® s s a s s a s s a s s a s s a s s a s s a s s a
s s s ® s s s s s > ¥ c a i 2 ® i c e ¥ ö ¥ µ o a « ± ± c s s i ¥ c ¥ a Ç s á c s s a a a
i Ç ¥ c ¥ ° ¥ ®
° s ° a ® c s a a a ¥ Ç E i Ç i ® ¥ ¥ Ö ¥ a ¥ w ¥ ® s s H c s > ¥ s a s s a s s a s s a s s a s s a s s a
s ° a s i s c s s s s Y á a s s s s a a c a s s a s s a s s a s s a s s a s s a s s a s s a s s a s s a
E ö ® c i s s s s µ a c e p s s a s s i µ s s a s s a s s a s s a s s a s s a s s a s s a s s a s s a
s s a a a c e a s s ® s s a a a p s s s s Y O s c s s µ c c µ a s s a s s a s s a s s a s s a s s a
E i ¥ ° ¥ ® ¥ c e ¥ i ® ¥ s s µ a ® E p s s a s s a s s a s s a s s a s s a s s a s s a s s a s s a
Y s a s s a s a s s ¥ ¥ i ® Z ¥ i s t ¥ Y s a s s a s s a s s a s s a s s a s s a s s a s s a s s a
> i ¥ ® i a c ¥ ° ¥ ® j ® " Z s a s s a s s a s s a s s a s s a s s a s s a s s a s s a s s a s s a
s s a a c e a µ a Y ¥ i ® ¥ Z s µ a c i s Y i a s k a ± ® s ¥ s ® ¥ s ¥ s ¥ s µ s ¶ a a c s s a
i Y ¥ i s ¶ i ® i µ s s s a s s ° c a i i s M c s a s s a s s a s s a s s a s s a s s a s s a s s a c
Y o a ® c ®
- s - á s a E ö ® c i i ® Y i ö a e j ¥ s i i i i ¥ ® s i y i i ® ¥ a E i s a ¶ a s a c s a a i s c ® i
Y i s µ a « s ® s s s s ® a á s ® s s ± ® # ¥ ® E i ® i s ¥ s ¥ Ö ¥ s c a a a ®
Z ± s a a s a a i Ç « E c s a Y ¶ i s i µ c a a ¥ C s - a a Y s s c s - a z o s i ¥ s s 2 i C s ¶ a s Y e f a i c i ® Y o
¥ i 2 i s a s a i s ¥ - ¥ a i Y ¥ w ¥ ® s i a µ s s a a p a µ ¥ a i ° ¥ a µ s a s s a s s a s s a s s a s s a
µ o a i c i ® ¥ a s ± s a a c a a a a ® i c s s i a a p a µ ¥ a i ° ¥ a µ s a s s a s s a s s a s s a s s a
i s ¥ i ® ¥ a i i ® Y ¥ ® ® i Ç s s a ¥ µ a ¥ F i l i ¥ ¥ ® c ¥ - ¥ ¥ c ¥ a ® i µ s c a
Y i Ö ¥ ¥ s ¥ s i ® ¥ ® i ° ¥ s Ö 2 a µ z i ® ¥ c e µ µ s ¥ a Y i i ® ¥ ö i a 2 s m s s a s µ a s
" ± « ® ± s a a s Y a a Y s a ¥ s ¥ a c e ¥ s - o n i k i t a c s a s s a s s a s s a s s a s s a s s a
- ® i Ç i ® ¥ a Y i s ¥ Y i Ö ¥ ¥ c s s ° ® s s o s s a a s s a s s a s s a s s a s s a s s a s s a
« E ± s a c a 2 i i Y i i Y ¥ i a (s ¥ E ¥) - s - a c s c e Y s i i ö ¥ ¥ s s s i s ¥ p
s a µ s s a a a ® ® i Ç ¥ µ ¥ i ° ¥ ® c i Ç s > s s s a a a µ s ¶ a a c

